



Open Source Used In DNAC 1.3.3 DNAC Platform 1.3.1.0

Cisco Systems, Inc.

www.cisco.com

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

Text Part Number: 78EE117C99-1112945119

This document contains licenses and notices for open source software used in this product. With respect to the free/open source software listed in this document, if you have any questions or wish to receive a copy of any source code to which you may be entitled under the applicable free/open source license(s) (such as the GNU Lesser/General Public License), please submit this [form](#).

In your requests please include the following reference number 78EE117C99-1112945119

Contents

1.1 gson 2.8.2

1.1.1 Available under license

1.2 summernote 0.8.10

1.2.1 Available under license

1.3 nock 9.2.5

1.3.1 Available under license

1.4 seamless-immutable 7.1.3

1.4.1 Available under license

1.5 log4j-slf4j-impl 2.11.1

1.5.1 Available under license

1.6 akka-stream 2.5.6

1.7 redux-saga 0.16.0

1.7.1 Available under license

1.8 request-local 1.0.5

1.9 httpsnippet 1.16.5

1.9.1 Available under license

1.10 eslint-config-airbnb 16.1.0

1.10.1 Available under license

1.11 mongoose 4.11.12

1.12 mail 1.4.7

1.12.1 Available under license

1.13 akka-slf4j 2.5.6

1.14 enzyme-to-json 3.2.2

1.14.1 Available under license

1.15 powermock-api-mockito 1.7.3

1.15.1 Available under license

1.16 react-intl 2.4.0

1.16.1 Available under license

1.17 akka-http 10.0.9

1.17.1 Available under license

1.18 eclipse-github 2.1.15

1.18.1 Available under license

1.19 react-test-renderer 16.2.0

1.20 request 2.83.0

1.20.1 Available under license

1.21 eslint-plugin-react 7.4.0

1.21.1 Available under license

1.22 css-loader 0.28.4

1.22.1 Available under license

1.23 jsreport-chrome-pdf 0.3.2

1.23.1 Available under license

1.24 node-promise 0.5.12

1.25 react-scroll 1.5.4

1.25.1 Available under license

1.26 immutability-helper 2.4.0

1.26.1 Available under license

1.27 react 16.2.0

1.27.1 Available under license

1.28 eslint-plugin-jsx-a11y 6.0.3

1.28.1 Available under license

1.29 akka-http-testkit 10.0.9

1.30 babel-plugin-transform-async-to-generator 6.24.1

1.31 react-router 3.0.5

1.31.1 Available under license

1.32 apache-log4j 2.11.1

1.32.1 Available under license

1.33 enzyme 3.2.0

1.33.1 Available under license

1.34 sinon 5.0.7

1.34.1 Available under license

1.35 body-parser 1.18.1

1.35.1 Available under license

1.36 babel-cli 6.26.0

1.37 axios 0.16.2

1.37.1 Available under license

- 1.38 logback-classic 1.2.3**
 - 1.38.1 Available under license
- 1.39 json-path 2.4.0**
- 1.40 powermock-module-testng 1.7.3**
 - 1.40.1 Available under license
- 1.41 enzyme-adapter-react 1.1.0**
 - 1.41.1 Available under license
- 1.42 ajv-keywords 3.1.0**
 - 1.42.1 Available under license
- 1.43 ratelimit4jcore 0.4.0**
- 1.44 akka-http-core 10.0.9**
- 1.45 nodemon 1.17.3**
 - 1.45.1 Available under license
- 1.46 jest 21.2.1**
 - 1.46.1 Available under license
- 1.47 moment 2.22.0**
 - 1.47.1 Available under license
- 1.48 jsreport 1.10.0**
 - 1.48.1 Available under license
- 1.49 react-tagsinput 3.18.0**
 - 1.49.1 Available under license
- 1.50 redux-act 1.2.0**
 - 1.50.1 Available under license
- 1.51 babel-core 6.8.0**
- 1.52 chai 4.1.2**
 - 1.52.1 Available under license
- 1.53 babel-jest 21.2.0**
- 1.54 method-override 2.3.9**
 - 1.54.1 Available under license
- 1.55 eslint-plugin-extra-rules 0.0.0-development**
- 1.56 mocha 5.0.0**
 - 1.56.1 Available under license
- 1.57 mongodb-migrations 0.8.5**
 - 1.57.1 Available under license
- 1.58 bootstrap 3.3.7**
 - 1.58.1 Available under license
- 1.59 jackson-annotations 2.7.5**
 - 1.59.1 Available under license
- 1.60 babel-preset-stage-3 6.24.1**

- 1.61 babel-jest 21.2.0**
 - 1.61.1 Available under license
- 1.62 ratelimit4j-redis 0.4.0**
- 1.63 swagger-parser 1.0.35**
 - 1.63.1 Available under license
- 1.64 elasticsearch-http-client 6.2.1**
 - 1.64.1 Available under license
- 1.65 ratelimit4j-inmemory 0.4.0**
- 1.66 d3 3.5.17**
 - 1.66.1 Available under license
- 1.67 prop-types 15.5.10**
 - 1.67.1 Available under license
- 1.68 react-paginate 5.0.0**
 - 1.68.1 Available under license
- 1.69 jol-core 0.9**
 - 1.69.1 Available under license
- 1.70 jackson-module-jsonschema 2.7.5**
 - 1.70.1 Available under license
- 1.71 history 4.6.2**
 - 1.71.1 Available under license
- 1.72 eslint 4.8.0**
 - 1.72.1 Available under license
- 1.73 node-sass-chokidar 0.0.03**
 - 1.73.1 Available under license
- 1.74 less 2.7.3**
 - 1.74.1 Available under license
- 1.75 mock-local-storage 1.0.5**
 - 1.75.1 Available under license
- 1.76 sanitize-html-react 1.13.0**
 - 1.76.1 Available under license
- 1.77 commons-io 1.3.2**
 - 1.77.1 Available under license
- 1.78 react-datetime 2.11.0**
 - 1.78.1 Available under license
- 1.79 less-loader 4.0.5**
 - 1.79.1 Available under license
- 1.80 quartz 2.2.1**
 - 1.80.1 Available under license
- 1.81 sonarqube 2.6.2**

1.81.1 Available under license
1.82 identity-obj-proxy 3.0.0
1.82.1 Available under license
1.83 react-redux 5.0.5
1.83.1 Available under license
1.84 babel-preset-es2015 6.24.1
1.84.1 Available under license
1.85 nodemon 1.12.1
1.85.1 Available under license
1.86 redux 3.5.2
1.86.1 Available under license
1.87 redux-thunk 2.1.0
1.87.1 Available under license
1.88 moment-timezone 0.5.16
1.88.1 Available under license
1.89 elasticsearch 6.2.0
1.89.1 Available under license
1.90 jackson-databind 2.9.9
1.90.1 Available under license
1.91 babel-preset-stage-2 6.24.1
1.91.1 Available under license
1.92 istanbul *
1.92.1 Available under license
1.93 multer 1.3.0
1.93.1 Available under license
1.94 ajv 5.5.2
1.94.1 Available under license
1.95 react-ace 5.2.2
1.95.1 Available under license
1.96 babel-cli 6.8.0
1.97 swagger-core 1.5.19
1.97.1 Available under license
1.98 yup 0.25.1
1.98.1 Available under license
1.99 codemirror 5.37.0
1.99.1 Available under license
1.100 react-select 1.2.1
1.100.1 Available under license
1.101 react-dom 16.2.0

1.101.1 Available under license

1.102 babel-core 6.26.0

1.103 babel-preset-es2015 6.6.0

1.103.1 Available under license

1.104 apache-commons-text 1.2

1.104.1 Available under license

1.105 snake-yaml 1.2

1.105.1 Available under license

1.106 jna 3.5.1

1.106.1 Available under license

1.107 babel-preset-es2016 6.24.1

1.108 jsreport-pdf-utils 0.5.0

1.108.1 Available under license

1.109 classnames 2.2.5

1.109.1 Available under license

1.110 commons-compress 1.16.1

1.110.1 Available under license

1.111 babel-plugin-transform-regenerator 6.26.0

1.112 babel-plugin-transform-class-properties 6.24.1

1.113 akka-http-jackson 10.0.9

1.113.1 Available under license

1.114 chai-http 3.0.0

1.115 csv-parse 2.0.0

1.115.1 Available under license

1.116 npm-run-all 4.0.2

1.116.1 Available under license

1.117 cookie-parser 1.4.3

1.117.1 Available under license

1.118 react-scrollspy 3.3.4

1.119 redux-mock-store 1.5.1

1.119.1 Available under license

1.120 babel-preset-react 6.24.1

1.121 model-mapper 1.1.0

1.121.1 Available under license

1.122 express 4.15.4

1.122.1 Available under license

1.123 babel-eslint 8.2.2

1.123.1 Available under license

1.124 fscreen 1.0.2

- 1.124.1 Available under license
- 1.125 react-input-autosize 2.2.1**
 - 1.125.1 Available under license
- 1.126 webpack-merge 4.1.2**
 - 1.126.1 Available under license
- 1.127 reselect 3.0.1**
- 1.128 json-path 0.11.2**
 - 1.128.1 Available under license
- 1.129 api-spec-converter 2.6.0**
 - 1.129.1 Available under license
- 1.130 sass-loader 6.0.6**
- 1.131 nyc 11.3.0**
 - 1.131.1 Available under license
- 1.132 eslint-plugin-import 2.8.0**
 - 1.132.1 Available under license
- 1.133 node-sass 4.5.3**
 - 1.133.1 Available under license
- 1.134 commons-lang3 3.6**
 - 1.134.1 Available under license
- 1.135 swagger-jaxrs2 2.0.7**

1.1 gson 2.8.2

1.1.1 Available under license :

Google Gson

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition,

"control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or,

within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all

other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 2008-2011 Google Inc.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to

communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of

the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

1.2 summernote 0.8.10

1.2.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015~ Summernote Team (<https://github.com/orgs/summernote/people>)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.3 nock 9.2.5

1.3.1 Available under license :

MIT License

Copyright (c) 2017 Pedro Teixeira and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR

IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.4 seamless-immutable 7.1.3

1.4.1 Available under license :

Copyright (c) 2016, Richard Feldman
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of seamless-immutable nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.5 log4j-slf4j-impl 2.11.1

1.5.1 Available under license :

Apache Log4j SLF4J Binding
Copyright 1999-2018 The Apache Software Foundation

This product includes software developed at

The Apache Software Foundation (<http://www.apache.org/>).

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or

Derivative Works a copy of this License; and

- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

1.6 akka-stream 2.5.6

1.7 redux-saga 0.16.0

1.7.1 Available under license :

MIT License

SPDX short identifier: MIT

Copyright <YEAR> <COPYRIGHT HOLDER>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.8 request-local 1.0.5

1.9 httpsnippet 1.16.5

1.9.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 Mashape (<https://www.mashape.com>)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.10 eslint-config-airbnb 16.1.0

1.10.1 Available under license :

MIT

1.11 mongoose 4.11.12

1.12 mail 1.4.7

1.12.1 Available under license :

COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0

1. Definitions.

1.1. Contributor. means each individual or entity that creates or contributes to the creation of Modifications.

1.2. Contributor Version. means the combination of the Original Software, prior Modifications used by a Contributor (if any), and the Modifications made by that particular Contributor.

1.3. Covered Software. means (a) the Original Software, or (b) Modifications, or (c) the combination of files containing Original Software with files containing Modifications, in each case including portions thereof.

1.4. Executable. means the Covered Software in any form other than Source Code.

1.5. Initial Developer. means the individual or entity that first makes Original Software available under this License.

1.6. Larger Work. means a work which combines Covered Software or portions thereof with code not governed by the terms of this License.

1.7. License. means this document.

1.8. Licensable. means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. Modifications. means the Source Code and Executable form of any of the following:

A. Any file that results from an addition to, deletion from or modification of the contents of a file containing Original Software or previous Modifications;

B. Any new file that contains any part of the Original Software or previous Modification; or

C. Any new file that is contributed or otherwise made available under the terms of this License.

1.10. Original Software. means the Source Code and Executable form of computer software code that is originally released under this License.

1.11. Patent Claims. means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.12. Source Code. means (a) the common form of computer software code in which modifications are made and (b) associated documentation included in or with such code.

1.13. You. (or .Your.) means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, .You. includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, .control. means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. License Grants.

2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer, to use, reproduce, modify, display, perform, sublicense and distribute the Original Software (or portions thereof), with or without Modifications, and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using or selling of Original Software, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Software (or portions thereof).

(c) The licenses granted in Sections 2.1(a) and (b) are effective on the date Initial Developer first distributes or otherwise makes the Original Software available to a third party under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You delete from the Original Software, or (2) for infringements caused by: (i) the modification of the Original Software, or (ii) the combination of the Original Software with other software or devices.

2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof), either on an unmodified basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first distributes or otherwise makes the Modifications available to a third party.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third party modifications of Contributor Version, or (ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or (3) under Patent Claims infringed by Covered Software in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must also be made available in Source Code form and that Source Code form must be distributed only under the terms of this License. You must include a copy of this License with every copy of the Source Code form of the Covered Software You

distribute or otherwise make available. You must inform recipients of any such Covered Software in Executable form as to how they can obtain such Covered Software in Source Code form in a reasonable manner on or through a medium customarily used for software exchange.

3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this License. You represent that You believe Your Modifications are Your original creation(s) and/or You have sufficient rights to grant the rights conveyed by this License.

3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor of the Modification. You may not remove or alter any copyright, patent or trademark notices contained within the Covered Software, or any notices of licensing or any descriptive text giving attribution to any Contributor or the Initial Developer.

3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or restricts the applicable version of this License or the recipients' rights hereunder. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Software. However, you may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or under the terms of a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable form does not attempt to limit or alter the recipient's rights in the Source Code form from the rights set forth in this License. If You distribute the Covered Software in Executable form under a different license, You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Software.

4. Versions of the License.

4.1. New Versions.

Sun Microsystems, Inc. is the initial license steward and may publish revised and/or new versions of this License from time to time. Each version will be given a distinguishing version number. Except as provided in Section 4.3, no one other than the license steward has the right to modify this License.

4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under the terms of

the version of the License under which You originally received the Covered Software. If the Initial Developer includes a notice in the Original Software prohibiting it from being distributed or otherwise made available under any subsequent version of the License, You must distribute and make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. Otherwise, You may also choose to use, distribute or otherwise make the Covered Software available under the terms of any subsequent version of the License published by the license steward.

4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software, You may create and use a modified version of this License if You: (a) rename the license and remove any references to the name of the license steward (except to note that the license differs from this License); and (b) otherwise make it clear that the license contains terms which differ from this License.

5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN .AS IS. BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

6. TERMINATION.

6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert such claim is referred to as .Participant.) alleging that the Participant Software (meaning the Contributor Version where the Participant is a Contributor or the Original Software where the Participant is the Initial Developer) directly or indirectly infringes any patent, then any and all rights granted directly or indirectly to You by such Participant, the Initial Developer (if the Initial Developer is not the Participant) and all Contributors under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively and automatically at the expiration of such 60 day notice period, unless if within such 60 day period You withdraw Your claim with respect to the Participant Software against such Participant either unilaterally or pursuant to a written agreement with Participant.

6.3. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been validly granted by You or any distributor hereunder prior to termination (excluding licenses granted to You by any distributor) shall survive termination.

7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING

NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOST PROFITS, LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

8. U.S. GOVERNMENT END USERS.

The Covered Software is a .commercial item., as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of .commercial computer software. (as that term is defined at 48 C.F.R. 252.227-7014(a)(1)) and .commercial computer software documentation. as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

9. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

10. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

The GNU General Public License (GPL) Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and

every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions.

You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE

STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C)

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author

Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

"CLASSPATH" EXCEPTION TO THE GPL VERSION 2

Certain source files distributed by Sun Microsystems, Inc. are subject to the following clarification and special exception to the GPL Version 2, but only where Sun has expressly included in the particular source file's header the words

"Sun designates this particular file as subject to the "Classpath" exception as provided by Sun in the License file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License Version 2 cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module.? An independent module is a module which is not derived from or based on this library.? If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so.? If you do not wish to do so, delete this exception statement from your version.

1.13 akka-slf4j 2.5.6

1.14 enzyme-to-json 3.2.2

1.14.1 Available under license :

(The MIT License)

Copyright (c) 2016 Adrien Antoine adriantoine@gmail.com

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.15 powermock-api-mockito 1.7.3

1.15.1 Available under license :

The MIT License

Copyright (c) 2007 Mockito contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE

AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.16 react-intl 2.4.0

1.16.1 Available under license :

Copyright 2014 Yahoo Inc.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the Yahoo Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL YAHOO! INC. BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.17 akka-http 10.0.9

1.17.1 Available under license :

This software is licensed under the Apache 2 license, quoted below.

Copyright 2009-2018 Lightbend Inc. [<https://www.lightbend.com>]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

[<http://www.apache.org/licenses/LICENSE-2.0>]

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

```
/*
```

```
* Copyright (C) 2018 Lightbend Inc. <https://www.lightbend.com>
```

```
*/
```

```
package akka
```

```
import sbt._, Keys._
```

```
import de.heikoseeberger.sbtheader.{ CommentCreator, HeaderPlugin }
```

```
object CopyrightHeader extends AutoPlugin {
```

```
  import HeaderPlugin.autoImport._
```

```
  import ValidatePullRequest.{ additionalTasks, ValidatePR }
```

```
  override def requires = HeaderPlugin
```

```
  override def trigger = allRequirements
```

```
  override def projectSettings = Def.settings(  
    Seq(Compile, Test).flatMap { config =>
```

```
      inConfig(config)(
```

```
        Seq(  
          headerLicense := Some(HeaderLicense.Custom(headerFor(CurrentYear))),
```

```
          headerMappings := headerMappings.value ++ Map(  
            HeaderFileType.scala    -> cStyleComment,
```

```
            HeaderFileType.java     -> cStyleComment,
```

```
            HeaderFileType("template") -> cStyleComment
```

```
        )
```

```
      )
```

```
    ),
```

```
    additionalTasks in ValidatePR += headerCheck in Compile,
```

```
    additionalTasks in ValidatePR += headerCheck in Test
```

```
  )
```

```
  val CurrentYear = java.time.Year.now.getValue.toString
```

```
  val CopyrightPattern = "Copyright \\([Cc]\\) (\\d{4})(-\\d{4})? (Lightbend|Typesafe) Inc. <.*>".r
```

```
  val CopyrightHeaderPattern = s"(?s).*${CopyrightPattern}.*".r
```

```
  def headerFor(year: String): String =
```

```
    s"Copyright (C) $year Lightbend Inc. <https://www.lightbend.com>"
```

```

val cStyleComment = HeaderComponentStyle.cStyleBlockComment.copy(commentCreator = new
CommentCreator() {
import HeaderComponentStyle.cStyleBlockComment.commentCreator

def updateLightbendHeader(header: String): String = header match {
case CopyrightHeaderPattern(years, null, _) =>
if (years != CurrentYear)
CopyrightPattern.replaceFirstIn(header, headerFor(years + "-" + CurrentYear))
else
CopyrightPattern.replaceFirstIn(header, headerFor(years))
case CopyrightHeaderPattern(years, endYears, _) =>
CopyrightPattern.replaceFirstIn(header, headerFor(years.replace(endYears, "-" + CurrentYear)))
case _ =>
header
}

override def apply(text: String, existingText: Option[String]): String = {
existingText
.map(updateLightbendHeader)
.getOrElse(commentCreator(text, existingText))
.trim
}
})
}

```

1.18 eclipse-github 2.1.15

1.18.1 Available under license :

```

/*****
* Copyright (c) 2011 GitHub Inc.
* All rights reserved. This program and the accompanying materials
* are made available under the terms of the Eclipse Public License 2.0
* which accompanies this distribution, and is available at
* https://www.eclipse.org/legal/epl-2.0/
*
* SPDX-License-Identifier: EPL-2.0
*
* Contributors:
* Kevin Sawicki (GitHub Inc.) - initial API and implementation
*****/
package org.eclipse.egit.github.core;

import java.io.Serializable;

/**
 * Repository contributor model class
 */

```

```

public class Contributor implements Serializable {

    /** serialVersionUID */
    private static final long serialVersionUID = -8434028880839230626L;

    /**
     * Anonymous contributor type value
     */
    public static final String TYPE_ANONYMOUS = "Anonymous"; //$NON-NLS-1$

    private int contributions;

    private int id;

    private String avatarUrl;

    private String login;

    private String name;

    private String type;

    private String url;

    /**
     * @return contributions
     */
    public int getContributions() {
        return contributions;
    }

    /**
     * @param contributions
     * @return this contributor
     */
    public Contributor setContributions(int contributions) {
        this.contributions = contributions;
        return this;
    }

    /**
     * @return id
     */
    public int getId() {
        return id;
    }

    /**

```



```

* @param id
* @return this contributor
*/
public Contributor setId(int id) {
    this.id = id;
    return this;
}

/**
* @return avatarUrl
*/
public String getAvatarUrl() {
    return avatarUrl;
}

/**
* @param avatarUrl
* @return this contributor
*/
public Contributor setAvatarUrl(String avatarUrl) {
    this.avatarUrl = avatarUrl;
    return this;
}

/**
* @return login
*/
public String getLogin() {
    return login;
}

/**
* @param login
* @return this contributor
*/
public Contributor setLogin(String login) {
    this.login = login;
    return this;
}

/**
* @return name
*/
public String getName() {
    return name;
}

/**

```

```

    * @param name
    * @return this contributor
    */
    public Contributor setName(String name) {
        this.name = name;
        return this;
    }

    /**
     * @return type
     */
    public String getType() {
        return type;
    }

    /**
     * @param type
     * @return this contributor
     */
    public Contributor setType(String type) {
        this.type = type;
        return this;
    }

    /**
     * @return url
     */
    public String getUrl() {
        return url;
    }

    /**
     * @param url
     * @return this contributor
     */
    public Contributor setUrl(String url) {
        this.url = url;
        return this;
    }
}

```

1.19 react-test-renderer 16.2.0

1.20 request 2.83.0

1.20.1 Available under license :

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the

Licensors for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

You must give any other recipients of the Work or Derivative Works a copy of this License; and

You must cause any modified files to carry prominent notices stating that You changed the files; and

You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any

additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

1.21 eslint-plugin-react 7.4.0

1.21.1 Available under license :

The MIT License (MIT)

Copyright (c) 2014 Yannick Croissant

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.22 css-loader 0.28.4

1.22.1 Available under license :

Copyright JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.23 jsreport-chrome-pdf 0.3.2

1.23.1 Available under license :

GNU LESSER GENERAL PUBLIC LICENSE
Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public

License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
- d) Do one of the following:
 - 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying

Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
- b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and

conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

1.24 node-promise 0.5.12

1.25 react-scroll 1.5.4

1.25.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 Joachim Karlsson (fissly)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.26 immutability-helper 2.4.0

1.26.1 Available under license :

MIT License

Copyright (c) 2017 Moshe Kolodny

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.27 react 16.2.0

1.27.1 Available under license :

MIT License

Copyright (c) 2013-present, Facebook, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.28 eslint-plugin-jsx-a11y 6.0.3

1.28.1 Available under license :

The MIT License (MIT)
Copyright (c) 2016 Ethan Cohen

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.29 akka-http-testkit 10.0.9

1.30 babel-plugin-transform-async-to-generator 6.24.1

1.31 react-router 3.0.5

1.31.1 Available under license :

MIT License

Copyright (c) React Training 2016-2018

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is

furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.32 apache-log4j 2.11.1

1.32.1 Available under license :

Apache Log4j
Copyright 1999-2017 Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

ResolverUtil.java
Copyright 2005-2006 Tim Fennell

Dumbster SMTP test server
Copyright 2004 Jason Paul Kitchen

TypeUtil.java
Copyright 2002-2012 Ramnivas Laddad, Juergen Hoeller, Chris Beams

picocli (<http://picocli.info>)
Copyright 2017 Remko Popma
Apache Log4j Core
Copyright 1999-2012 Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

ResolverUtil.java
Copyright 2005-2006 Tim Fennell

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted"

means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and

attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the

appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 1999-2005 The Apache Software Foundation

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software

distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

Apache Log4j

Copyright 1999-2012 Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

Dumbster SMTP test server

Copyright 2004 Jason Paul Kitchen

/*

* Licensed to the Apache Software Foundation (ASF) under one or more
* contributor license agreements. See the NOTICE file distributed with
* this work for additional information regarding copyright ownership.
* The ASF licenses this file to You under the Apache license, Version 2.0
* (the "License"); you may not use this file except in compliance with
* the License. You may obtain a copy of the License at
*
* <http://www.apache.org/licenses/LICENSE-2.0>
*
* Unless required by applicable law or agreed to in writing, software
* distributed under the License is distributed on an "AS IS" BASIS,
* WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
* See the license for the specific language governing permissions and
* limitations under the license.
*/

1.33 enzyme 3.2.0

1.33.1 Available under license :

The MIT License (MIT)

Copyright (c) 2016 Leland Richardson

Permission is hereby granted, free of charge, to any person obtaining a copy
of this software and associated documentation files (the "Software"), to deal
in the Software without restriction, including without limitation the rights
to use, copy, modify, merge, publish, distribute, sublicense, and/or sell
copies of the Software, and to permit persons to whom the Software is
furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all
copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright (c) 2015 Airbnb, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.34 sinon 5.0.7

1.34.1 Available under license :

(The BSD License)

Copyright (c) 2010-2017, Christian Johansen, christian@cjhansen.no
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of Christian Johansen nor the names of his contributors

may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.35 body-parser 1.18.1

1.35.1 Available under license :

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jongleberry.com>

Copyright (c) 2014-2015 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.36 babel-cli 6.26.0

1.37 axios 0.16.2

1.37.1 Available under license :

Copyright (c) 2014 Matt Zabriskie

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.38 logback-classic 1.2.3

1.38.1 Available under license :

Logback LICENSE

Logback: the reliable, generic, fast and flexible logging framework.
Copyright (C) 1999-2015, QOS.ch. All rights reserved.

This program and the accompanying materials are dual-licensed under either the terms of the Eclipse Public License v1.0 as published by the Eclipse Foundation

or (per the licensee's choosing)

under the terms of the GNU Lesser General Public License version 2.1 as published by the Free Software Foundation.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head>
  <meta http-equiv="content-type" content="text/html; charset=iso-8859-1" />
  <title>License</title>
  <link rel="stylesheet" type="text/css" href="css/common.css" />
  <link rel="stylesheet" type="text/css" href="css/screen.css" media="screen" />
  <link rel="stylesheet" type="text/css" href="css/_print.css" media="print" />
```

```
</head>
```

```
<body>
```

```
  <script type="text/javascript">prefix=";</script>
```

```
  <script src="templates/header.js" type="text/javascript"></script>
```

```
  <div id="left">
```

```
    <script src="templates/left.js" type="text/javascript"></script>
```

```
  </div>
```

```
  <div id="right">
```

```
    <script type="text/javascript" src="templates/right.js" ></script>
```

```
  </div>
```

```
  <div id="content">
```

```
    <div class="section">
```

```
      <h2>Logback License</h2>
```

```
    </div>
```

```
  <p>As of release 0.9.18, logback source code and binaries are
  dual-licensed under the EPL v1.0 and the LGPL 2.1, or more
  formally:</p>
```

```
  <p class="source">Logback: the reliable, generic, fast and flexible logging framework.
  Copyright (C) 1999-2017, QOS.ch. All rights reserved.
```

```
  This program and the accompanying materials are dual-licensed under
  either the terms of the <a href="http://www.eclipse.org/legal/epl-v10.html">Eclipse Public License v1.0</a> as
  published by
  the Eclipse Foundation
```

```
  or (per the licensee's choosing)
```

```
  under the terms of the GNU <a href="http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html">Lesser General
  Public License version 2.1</a>
  as published by the Free Software Foundation.</p>
```

```
  <!-- ===== -->
```

```
  <p>The EPL/LGPL dual-license serves several purposes. The LGPL
  license ensures <em>continuity</em> in terms of licensing of the
```

logback project. Prior to version 0.9.18, logback was licensed (exclusively) under the LGPL v2.1. Moreover, since the EPL is deemed [incompatible](http://www.fsf.org/licenses/index_htm) by the Free Software Foundation, the LGPL will allow various licensees, in particular software distributors who may be already bound by the terms of the GPL or the LGPL, to distribute our software.

On the other hand, the EPL license will placate organizations which refuse certain restrictions imposed by the LGPL.

Please note that logback-classic is intended to be used behind the SLF4J API, which is licensed under the [MIT license](http://www.slf4j.org/license.html).

If you wish to make a significant contribution to the logback project, you are invited to file a [Contributor License Agreement](#). The purpose of this agreement is to formalize the terms of your contribution and to protect the project in case of litigation.

Upon request, we may exempt open-source projects from LGPL and EPL's reciprocity clauses so that the said projects can develop logback extensions under the license of their choice. Exemptions are granted on a case by case basis.

```
<script src="templates/footer.js" type="text/javascript"></script>
</div>
</body>
</html>
```

1.39 json-path 2.4.0

1.40 powermock-module-testng 1.7.3

1.40.1 Available under license :

The MIT License

Copyright (c) 2007 Mockito contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

ASM: a very small and fast Java bytecode manipulation framework
Copyright (c) 2000-2011 INRIA, France Telecom
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Apache License
Version 2.0, January 2004

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally

submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or

implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 2007-2017 PowerMock Contributors

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

The JMockit Testing Toolkit

Copyright (c) 2006-2011 Rogrio Liesenfeld

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.41 enzyme-adapter-react 1.1.0

1.41.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 Airbnb, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.42 ajv-keywords 3.1.0

1.42.1 Available under license :

The MIT License (MIT)

Copyright (c) 2016 Evgeny Poberezkin

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.43 ratelimit4jcore 0.4.0

1.44 akka-http-core 10.0.9

1.45 nodemon 1.17.3

1.45.1 Available under license :

(The MIT License)

Copyright (c) 2010 Sencha Inc.

Copyright (c) 2011 LearnBoost

Copyright (c) 2011 TJ Holowaychuk

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (C) 2011 Peter Zotov <whitequark@whitequark.org>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 2010 Benjamin Thomas, Robert Kieffer

Permission is hereby granted, free of charge, to any person obtaining a copy

of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013 Jonathan Ong <me@jungleberry.com>

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 TJ Holowaychuk

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish,

distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2009-2014 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright (c) 2014 Jonathan Ong me@jungleberry.com

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

// MIT License

Copyright (C) Roman Shtylman <shtylman@gmail.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jungleberry.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT,

TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jungleberry.com>

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013-2014 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013 Jared Hanson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 2014 Nathan LaFreniere and other contributors.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * The names of any contributors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS AND CONTRIBUTORS BE LIABLE FOR ANY

DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

* * *

The complete list of contributors can be found at: <https://github.com/hapijs/qs/graphs/contributors>
The MIT License (MIT)

Copyright (c) 2014 Jonathan Ong me@jongleberry.com

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright 2014 Alex Gorbachev

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012-2014 TJ Holowaychuk <vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 Federico Romero

Copyright (c) 2012-2014 Isaac Z. Schlueter

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including

without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.46 jest 21.2.1

1.46.1 Available under license :

MIT License

For Jest software

Copyright (c) 2014-present, Facebook, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.47 moment 2.22.0

1.47.1 Available under license :

Copyright (c) JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation

files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.48 jsreport 1.10.0

1.48.1 Available under license :

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
- b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are

covered by this License.

b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.

b) Accompany the Combined Work with a copy of the GNU GPL and this license document.

c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If

you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
- b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

1.49 react-tagsinput 3.18.0

1.49.1 Available under license :

The MIT License

Copyright (c) 2015 Ola Holmström <olaholmstrom+github@gmail.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.50 redux-act 1.2.0

1.50.1 Available under license :

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition,

"control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or,

within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all

other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

1.51 babel-core 6.8.0

1.52 chai 4.1.2

1.52.1 Available under license :

MIT License

Copyright (c) 2017 Chai.js Assertion Library

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.53 babel-jest 21.2.0

1.54 method-override 2.3.9

1.54.1 Available under license :

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jongleberry.com>

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.55 eslint-plugin-extra-rules 0.0.0-development

1.56 mocha 5.0.0

1.56.1 Available under license :

Attribution 4.0 International

=====

Creative Commons Corporation ("Creative Commons") is not a law firm and does not provide legal services or legal advice. Distribution of Creative Commons public licenses does not create a lawyer-client or other relationship. Creative Commons makes its licenses and related information available on an "as-is" basis. Creative Commons gives no warranties regarding its licenses, any material licensed under their terms and conditions, or any related information. Creative Commons disclaims all liability for damages resulting from their use to the fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and conditions that creators and other rights holders may use to share original works of authorship and other material subject to copyright and certain other rights specified in the public license below. The following considerations are for informational purposes only, are not exhaustive, and do not form part of our licenses.

Considerations for licensors: Our public licenses are intended for use by those authorized to give the public permission to use material in ways otherwise restricted by copyright and certain other rights. Our licenses are irrevocable. Licensors should read and understand the terms and conditions of the license they choose before applying it. Licensors should also secure all rights necessary before applying our licenses so that the public can reuse the material as expected. Licensors should clearly mark any material not subject to the license. This includes other CC-licensed material, or material used under an exception or limitation to copyright. More considerations for licensors: wiki.creativecommons.org/Considerations_for_licensors

Considerations for the public: By using one of our public licenses, a licensor grants the public permission to use the licensed material under specified terms and conditions. If the licensor's permission is not necessary for any reason--for example, because of any applicable exception or limitation to copyright--then that use is not regulated by the license. Our licenses grant only permissions under copyright and certain other rights that a licensor has authority to grant. Use of the licensed material may still be restricted for other reasons, including because others have copyright or other rights in the material. A licensor may make special requests, such as asking that all changes be marked or described. Although not required by our licenses, you are encouraged to respect those requests where reasonable. More considerations for the public:

Creative Commons Attribution 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

- a. Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.
- b. Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in accordance with the terms and conditions of this Public License.
- c. Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation, performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.
- d. Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.
- e. Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights

that applies to Your use of the Licensed Material.

- f. Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.
- g. Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.
- h. Licensor means the individual(s) or entity(ies) granting rights under this Public License.
- i. Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.
- j. Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.
- k. You means the individual or entity exercising the Licensed Rights under this Public License. Your has a corresponding meaning.

Section 2 -- Scope.

a. License grant.

1. Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:
 - a. reproduce and Share the Licensed Material, in whole or in part; and
 - b. produce, reproduce, and Share Adapted Material.
2. Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public

License does not apply, and You do not need to comply with its terms and conditions.

3. Term. The term of this Public License is specified in Section 6(a).

4. Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created, and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a) (4) never produces Adapted Material.

5. Downstream recipients.

a. Offer from the Licensor -- Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.

b. No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.

6. No endorsement. Nothing in this Public License constitutes or may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

b. Other rights.

1. Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed

Rights, but not otherwise.

2. Patent and trademark rights are not licensed under this Public License.
3. To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor expressly reserves any right to collect such royalties.

Section 3 -- License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

a. Attribution.

1. If You Share the Licensed Material (including in modified form), You must:
 - a. retain the following if it is supplied by the Licensor with the Licensed Material:
 - i. identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);
 - ii. a copyright notice;
 - iii. a notice that refers to this Public License;
 - iv. a notice that refers to the disclaimer of warranties;
 - v. a URI or hyperlink to the Licensed Material to the extent reasonably practicable;
 - b. indicate if You modified the Licensed Material and retain an indication of any previous modifications; and
 - c. indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.

2. You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.
3. If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.
4. If You Share Adapted Material You produce, the Adapter's License You apply must not prevent recipients of the Adapted Material from complying with this Public License.

Section 4 -- Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

- a. for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database;
- b. if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material; and
- c. You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.

For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 -- Disclaimer of Warranties and Limitation of Liability.

- a. UNLESS OTHERWISE SEPARATELY UNDERTAKEN BY THE LICENSOR, TO THE EXTENT POSSIBLE, THE LICENSOR OFFERS THE LICENSED MATERIAL AS-IS AND AS-AVAILABLE, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED MATERIAL, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHER. THIS INCLUDES, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, ABSENCE OF LATENT OR OTHER DEFECTS,

ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT KNOWN OR DISCOVERABLE. WHERE DISCLAIMERS OF WARRANTIES ARE NOT ALLOWED IN FULL OR IN PART, THIS DISCLAIMER MAY NOT APPLY TO YOU.

b. TO THE EXTENT POSSIBLE, IN NO EVENT WILL THE LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE) OR OTHERWISE FOR ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, OR OTHER LOSSES, COSTS, EXPENSES, OR DAMAGES ARISING OUT OF THIS PUBLIC LICENSE OR USE OF THE LICENSED MATERIAL, EVEN IF THE LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES, COSTS, EXPENSES, OR DAMAGES. WHERE A LIMITATION OF LIABILITY IS NOT ALLOWED IN FULL OR IN PART, THIS LIMITATION MAY NOT APPLY TO YOU.

c. The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 -- Term and Termination.

a. This Public License applies for the term of the Copyright and Similar Rights licensed here. However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.

b. Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates:

1. automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or
2. upon express reinstatement by the Licensor.

For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

c. For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop distributing the Licensed Material at any time; however, doing so will not terminate this Public License.

d. Sections 1, 5, 6, 7, and 8 survive termination of this Public License.

Section 7 -- Other Terms and Conditions.

- a. The Licensor shall not be bound by any additional or different terms or conditions communicated by You unless expressly agreed.
- b. Any arrangements, understandings, or agreements regarding the Licensed Material not stated herein are separate from and independent of the terms and conditions of this Public License.

Section 8 -- Interpretation.

- a. For the avoidance of doubt, this Public License does not, and shall not be interpreted to, reduce, limit, restrict, or impose conditions on any use of the Licensed Material that could lawfully be made without permission under this Public License.
- b. To the extent possible, if any provision of this Public License is deemed unenforceable, it shall be automatically reformed to the minimum extent necessary to make it enforceable. If the provision cannot be reformed, it shall be severed from this Public License without affecting the enforceability of the remaining terms and conditions.
- c. No term or condition of this Public License will be waived and no failure to comply consented to unless expressly agreed to by the Licensor.
- d. Nothing in this Public License constitutes or may be interpreted as a limitation upon, or waiver of, any privileges and immunities that apply to the Licensor or You, including from the legal processes of any jurisdiction or authority.

=====

Creative Commons is not a party to its public licenses. Notwithstanding, Creative Commons may elect to apply one of its public licenses to material it publishes and in those instances will be considered the Licensor. The text of the Creative Commons public licenses is dedicated to the public domain under the CC0 Public Domain Dedication. Except for the limited purpose of indicating that material is shared under a Creative Commons public license or as otherwise permitted by the Creative Commons policies published at creativecommons.org/policies, Creative Commons does not authorize the use of the trademark "Creative Commons" or any other trademark or logo of Creative Commons without its prior written consent including,

without limitation, in connection with any unauthorized modifications to any of its public licenses or any other arrangements, understandings, or agreements concerning use of licensed material. For the avoidance of doubt, this paragraph does not form part of the public licenses.

Creative Commons may be contacted at creativecommons.org.
(The MIT License)

Copyright (c) 2011-2018 JS Foundation and contributors, <https://js.foundation>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

```
#!/usr/bin/env node
```

```
/**
```

```
* This script updates the "contributors" property of the root `package.json`.
```

```
* It modifies `package.json` in place!
```

```
*
```

```
* See `.mailmap` for username/email mappings.
```

```
*/
```

```
'use strict';
```

```
const exec = require('child_process').exec;
```

```
const path = require('path');
```

```
const fs = require('fs');
```

```
// list of authors/emails that should not appear in the contributors list, e.g. bots
```

```
const BLACKLIST = [
```

```
'greenkeeperio-bot <support@greenkeeper.io>',
```

```
'greenkeeper[bot] <greenkeeper[bot]@users.noreply.github.com>',
```

```

'TJ Holowaychuk <tj@vision-media.ca>' // author
];

const ROOT = path.join(__dirname, '..');
const PKG_FILEPATH = path.join(ROOT, 'package.json');

const pkg = JSON.parse(fs.readFileSync(PKG_FILEPATH, 'utf8'));
const contributorCount = pkg.contributors.length;

// could use `| sort | uniq` here but didn't want to assume 'nix
// see `man git-log` for info about the format
exec('git log --format="%aN <%aE>"', {cwd: ROOT}, (err, gitOutput) => {
  if (err) {
    throw err;
  }

  // result will be many lines of contributors, one or more per commit.
  // we wrap it in a `Set` to get unique values, then attempt to get
  // a consistent sort.
  const contributors = Array.from(new Set(gitOutput.trim().split(/\r?\n/)))
    .filter(contributor => BLACKLIST.indexOf(contributor) < 0)
    .sort((a, b) => a.localeCompare(b, 'en', {sensitivity: 'accent'}));

  const newContributorCount = contributors.length;

  if (newContributorCount !== contributorCount) {
    pkg.contributors = contributors;
    fs.writeFileSync(PKG_FILEPATH, JSON.stringify(pkg, null, 2));

    console.log(
      newContributorCount < contributorCount
      ? `WARNING: Reducing contributor count by ${contributorCount -
        newContributorCount}! Hopefully it's because you updated .mailmap.`
      : `Wrote ${newContributorCount -
        contributorCount} new contributors to package.json.`
    );
  } else {
    console.log('No new contributors; nothing to do.');
```

1.57 mongodb-migrations 0.8.5

1.57.1 Available under license :

The MIT License (MIT)

Copyright (c) 2014-15 Eugene Mirotin

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.58 bootstrap 3.3.7

1.58.1 Available under license :

The MIT License (MIT)

Copyright (c) 2011-2018 Twitter, Inc.

Copyright (c) 2011-2018 The Bootstrap Authors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

layout: docs

title: License FAQs

description: Commonly asked questions about Bootstrap's open source license.

group: about

Bootstrap is released under the MIT license and is copyright `{{ site.time | date: "%Y" }}` Twitter. Boiled down to smaller chunks, it can be described with the following conditions.

It requires you to:

* Keep the license and copyright notice included in Bootstrap's CSS and JavaScript files when you use them in your works

It permits you to:

- Freely download and use Bootstrap, in whole or in part, for personal, private, company internal, or commercial purposes
- Use Bootstrap in packages or distributions that you create
- Modify the source code
- Grant a sublicense to modify and distribute Bootstrap to third parties not included in the license

It forbids you to:

- Hold the authors and license owners liable for damages as Bootstrap is provided without warranty
- Hold the creators or copyright holders of Bootstrap liable
- Redistribute any piece of Bootstrap without proper attribution
- Use any marks owned by Twitter in any way that might state or imply that Twitter endorses your distribution
- Use any marks owned by Twitter in any way that might state or imply that you created the Twitter software in question

It does not require you to:

- Include the source of Bootstrap itself, or of any modifications you may have made to it, in any redistribution you may assemble that includes it
- Submit changes that you make to Bootstrap back to the Bootstrap project (though such feedback is encouraged)

The full Bootstrap license is located `[in the project repository]({{ site.repo }}/blob/v{{ site.current_version }}/LICENSE)` for more information.

1.59 jackson-annotations 2.7.5

1.59.1 Available under license :

This copy of Jackson JSON processor annotations is licensed under the Apache (Software) License, version 2.0 ("the License").

See the License for details about distribution rights, and the specific rights regarding derivate works.

You may obtain a copy of the License at:

1.60 babel-preset-stage-3 6.24.1

1.61 babel-jest 21.2.0

1.61.1 Available under license :

MIT License

For Jest software

Copyright (c) 2014-present, Facebook, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.62 ratelimit4j-redis 0.4.0

1.63 swagger-parser 1.0.35

1.63.1 Available under license :

Copyright 2017 SmartBear Software

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at [apache.org/licenses/LICENSE-2.0](http://www.apache.org/licenses/LICENSE-2.0)

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.64 elasticsearch-http-client 6.2.1

1.64.1 Available under license :

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or

Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work

or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work

by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "{}" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright {yyyy} {name of copyright owner}

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.65 ratelimit4j-inmemory 0.4.0

1.66 d3 3.5.17

1.66.1 Available under license :

Copyright 2010-2017 Mike Bostock
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the author nor the names of contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.67 prop-types 15.5.10

1.67.1 Available under license :

MIT License

Copyright (c) 2013-present, Facebook, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.68 react-paginate 5.0.0

1.68.1 Available under license :

The MIT License (MIT)

Copyright (c) 2016 Adle Delamarche

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights

to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.69 jol-core 0.9

1.69.1 Available under license :

The GNU General Public License (GPL)

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny

you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and

appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this

License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or

any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

"CLASSPATH" EXCEPTION TO THE GPL

Certain source files distributed by Oracle America and/or its affiliates are subject to the following clarification and special exception to the GPL, but only where Oracle has expressly included in the particular source file's header the words "Oracle designates this particular file as subject to the "Classpath" exception as provided by Oracle in the LICENSE file that accompanied this code."

Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License cover the whole combination.

As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

1.70 jackson-module-jsonschema 2.7.5

1.70.1 Available under license :

This copy of Jackson JSON processor databind module is licensed under the Apache (Software) License, version 2.0 ("the License"). See the License for details about distribution rights, and the specific rights regarding derivate works.

You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

1.71 history 4.6.2

1.71.1 Available under license :

MIT License

Copyright (c) React Training 2016-2018

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.72 eslint 4.8.0

1.72.1 Available under license :

ESLint

Copyright JS Foundation and other contributors, <https://js.foundation>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM,

OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright JS Foundation and other contributors, <https://js.foundation>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.73 node-sass-chokidar 0.0.03

1.73.1 Available under license :

Copyright (c) 2013-2016 Andrew Nesbitt

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

MIT License

Copyright (c) 2017 Michael Wayman

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.74 less 2.7.3

1.74.1 Available under license :

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity

exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided

that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity,

or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

1.75 mock-local-storage 1.0.5

1.75.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 letsrock-today

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.76 sanitize-html-react 1.13.0

1.76.1 Available under license :

MIT License

SPDX short identifier: MIT

Copyright <YEAR> <COPYRIGHT HOLDER>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the

rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.77 commons-io 1.3.2

1.77.1 Available under license :

Apache Commons IO

Copyright 2002-2017 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of

this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only

on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.78 react-datetime 2.11.0

1.78.1 Available under license :

The MIT License (MIT)

Copyright (c) 2017 Javier Marquez

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.79 less-loader 4.0.5

1.79.1 Available under license :

Copyright JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.80 quartz 2.2.1

1.80.1 Available under license :

Copyright Declaration:

Copyright 2003-2016 Software AG, Darmstadt, Germany and/or Software AG USA Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

Trademark and Patent declaration

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses>.

Third Party declaration

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

Confidentiality Disclaimer:

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software AG.

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation,

and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s)

with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.
Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.81 sonarqube 2.6.2

1.81.1 Available under license :

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

*/
package org.sonar.server.permission.ws;

import org.sonar.server.ws.WsAction;

public interface PermissionsWsAction extends WsAction {
    // marker interface
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.GroupPermissionDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;

import static java.lang.String.format;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;

```



```

import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.component.ComponentTesting.newDirectory;
import static org.sonar.db.component.ComponentTesting.newFileDto;
import static org.sonar.db.component.ComponentTesting.newModuleDto;
import static org.sonar.db.component.ComponentTesting.newSubView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;

```

```

public class RemoveGroupActionTest extends BasePermissionWsTest<RemoveGroupAction> {

```

```

    private GroupDto aGroup;

```

```

    @Before

```

```

    public void setUp() {
        aGroup = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    }

```

```

    @Override

```

```

    protected RemoveGroupAction buildWsAction() {
        return new RemoveGroupAction(db.getDbClient(), userSession, newPermissionUpdater(),
        newPermissionWsSupport());
    }

```

```

    @Test

```

```

    public void remove_permission_using_group_name() {
        db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
        db.users().insertPermissionOnGroup(aGroup, PROVISION_PROJECTS);
        loginAsAdmin(db.getDefaultOrganization());

        newRequest()
            .setParam(PARAM_GROUP_NAME, aGroup.getName())
            .setParam(PARAM_PERMISSION, PROVISIONING)
            .execute();

        assertThat(db.users().selectGroupPermissions(aGroup, null)).containsOnly(ADMINISTER.getKey());
    }

```

```

    @Test

```

```

    public void remove_permission_using_group_id() {
        db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
        db.users().insertPermissionOnGroup(aGroup, PROVISION_PROJECTS);
    }

```

```

loginAsAdmin(db.getDefaultOrganization());

newRequest()
    .setParam(PARAM_GROUP_ID, aGroup.getId().toString())
    .setParam(PARAM_PERMISSION, PROVISION_PROJECTS.getKey())
    .execute();

assertThat(db.users().selectGroupPermissions(aGroup, null)).containsOnly(ADMINISTER.getKey());
}

```

@Test

```

public void remove_project_permission() {
    ComponentDto project = db.components().insertPrivateProject();
    db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
    db.users().insertProjectPermissionOnGroup(aGroup, ADMIN, project);
    db.users().insertProjectPermissionOnGroup(aGroup, ISSUE_ADMIN, project);
    loginAsAdmin(db.getDefaultOrganization());

```

```

newRequest()
    .setParam(PARAM_GROUP_NAME, aGroup.getName())
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .setParam(PARAM_PERMISSION, ADMIN)
    .execute();

```

```

assertThat(db.users().selectGroupPermissions(aGroup, null)).containsOnly(ADMINISTER.getKey());
assertThat(db.users().selectGroupPermissions(aGroup, project)).containsOnly(ISSUE_ADMIN);
}

```

@Test

```

public void remove_with_view_uuid() {
    ComponentDto view = db.components().insertView();
    db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
    db.users().insertProjectPermissionOnGroup(aGroup, ADMIN, view);
    db.users().insertProjectPermissionOnGroup(aGroup, ISSUE_ADMIN, view);
    loginAsAdmin(db.getDefaultOrganization());

```

```

newRequest()
    .setParam(PARAM_GROUP_NAME, aGroup.getName())
    .setParam(PARAM_PROJECT_ID, view.uuid())
    .setParam(PARAM_PERMISSION, ADMIN)
    .execute();

```

```

assertThat(db.users().selectGroupPermissions(aGroup, null)).containsOnly(ADMINISTER.getKey());
assertThat(db.users().selectGroupPermissions(aGroup, view)).containsOnly(ISSUE_ADMIN);
}

```

@Test

```

public void remove_with_project_key() {

```

```

ComponentDto project = db.components().insertPrivateProject();
db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
db.users().insertProjectPermissionOnGroup(aGroup, ADMIN, project);
db.users().insertProjectPermissionOnGroup(aGroup, ISSUE_ADMIN, project);
loginAsAdmin(db.getDefaultOrganization());

newRequest()
    .setParam(PARAM_GROUP_NAME, aGroup.getName())
    .setParam(PARAM_PROJECT_KEY, project.getDbKey())
    .setParam(PARAM_PERMISSION, ADMIN)
    .execute();

assertThat(db.users().selectGroupPermissions(aGroup, null)).containsOnly(ADMINISTER.getKey());
assertThat(db.users().selectGroupPermissions(aGroup, project)).containsOnly(ISSUE_ADMIN);
}

@Test
public void fail_to_remove_last_admin_permission() throws Exception {
    db.users().insertPermissionOnGroup(aGroup, ADMINISTER);
    db.users().insertPermissionOnGroup(aGroup, PROVISION_PROJECTS);
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Last group with permission 'admin'. Permission cannot be removed.");

    executeRequest(aGroup, SYSTEM_ADMIN);
}

@Test
public void fail_when_project_does_not_exist() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Project id 'unknown-project-uuid' not found");

    newRequest()
        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .setParam(PARAM_PROJECT_ID, "unknown-project-uuid")
        .setParam(PARAM_PERMISSION, ADMINISTER.getKey())
        .execute();
}

@Test
public void fail_when_project_project_permission_without_project() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Invalid global permission 'issueadmin'. Valid values are [admin, profileadmin,

```

```

gateadmin, scan, provisioning]");

    executeRequest(aGroup, ISSUE_ADMIN);
}

@Test
public void fail_when_component_is_a_module() {
    ComponentDto module =
db.components().insertComponent(newModuleDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));

    failIfComponentIsNotAProjectOrView(module);
}

@Test
public void fail_when_component_is_a_directory() {
    ComponentDto file =
db.components().insertComponent(newDirectory(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), "A/B"));

    failIfComponentIsNotAProjectOrView(file);
}

@Test
public void fail_when_component_is_a_file() {
    ComponentDto file =
db.components().insertComponent(newFileDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), null, "file-uuid"));

    failIfComponentIsNotAProjectOrView(file);
}

@Test
public void fail_when_component_is_a_subview() {
    ComponentDto file =
db.components().insertComponent(newSubView(ComponentTesting.newView(db.organizations().insert())));

    failIfComponentIsNotAProjectOrView(file);
}

private void failIfComponentIsNotAProjectOrView(ComponentDto file) {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Component " + file.getDbKey() + " (id: " + file.uuid() + ") must be a project or a view.");

    newRequest()

```

```

        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .setParam(PARAM_PROJECT_ID, file.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
    }

@Test
public void fail_when_group_name_is_missing() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Group name or group id must be provided");

    newRequest()
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_permission_name_and_id_are_missing() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("The 'permission' parameter is missing");

    newRequest()
        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .execute();
}

@Test
public void fail_when_group_id_does_not_exist() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("No group with id '999999'");

    newRequest()
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .setParam(PARAM_GROUP_ID, "999999")
        .execute();
}

@Test
public void fail_when_project_uuid_and_project_key_are_provided() {
    ComponentDto project = db.components().insertPrivateProject();
    loginAsAdmin(db.getDefaultOrganization());

```

```

expectedException.expect(BadRequestException.class);
expectedException.expectMessage("Project id or project key can be provided, not both.");

newRequest()
    .setParam(PARAM_GROUP_NAME, aGroup.getName())
    .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .setParam(PARAM_PROJECT_KEY, project.getDbKey())
    .execute();
}

private void executeRequest(GroupDto groupDto, String permission) {
    newRequest()
        .setParam(PARAM_GROUP_NAME, groupDto.getName())
        .setParam(PARAM_PERMISSION, permission)
        .execute();
}

private void executeRequest(GroupDto groupDto, OrganizationDto organizationDto, String permission) {
    newRequest()
        .setParam(PARAM_GROUP_NAME, groupDto.getName())
        .setParam(PARAM_PERMISSION, permission)
        .setParam(PARAM_ORGANIZATION, organizationDto.getKey())
        .execute();
}

@Test
public void removing_global_permission_fails_if_not_administrator_of_organization() {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .execute();
}

@Test
public void removing_project_permission_fails_if_not_administrator_of_project() {
    ComponentDto project = db.components().insertPrivateProject();
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .setParam(PARAM_PERMISSION, PROVISIONING)

```

```

        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
    }

/**
 * User is project administrator but not system administrator
 */
@Test
public void removing_project_permission_is_allowed_to_project_administrators() {
    ComponentDto project = db.components().insertPrivateProject();
    db.users().insertProjectPermissionOnGroup(aGroup, CODEVIEWER, project);
    db.users().insertProjectPermissionOnGroup(aGroup, ISSUE_ADMIN, project);

    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    newRequest()
        .setParam(PARAM_GROUP_NAME, aGroup.getName())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(aGroup, project)).containsOnly(CODEVIEWER);
}

@Test
public void no_effect_when_removing_any_permission_from_group_AnyOne_on_a_private_project() {
    ComponentDto project = db.components().insertPrivateProject();
    ProjectPermissions.ALL
        .forEach(perm -> unsafeInsertProjectPermissionOnAnyone(perm, project));
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    ProjectPermissions.ALL
        .forEach(permission -> {
            newRequest()
                .setParam(PARAM_GROUP_NAME, "anyone")
                .setParam(PARAM_PROJECT_ID, project.uuid())
                .setParam(PARAM_PERMISSION, permission)
                .execute();

            assertThat(db.users().selectAnyonePermissions(db.getDefaultOrganization(), project)).contains(permission);
        });
}

@Test
public void fail_when_removing_USER_permission_from_group_AnyOne_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

```

```

expectedException.expect(BadRequestException.class);
expectedException.expectMessage("Permission user can't be removed from a public component");

newRequest()
    .setParam(PARAM_GROUP_NAME, "anyone")
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .setParam(PARAM_PERMISSION, USER)
    .execute();
}

@Test
public void fail_when_removing_CODEVIEWER_permission_from_group_AnyOne_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.login().addProjectPermission(UserRole.ADMIN, project);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

    newRequest()
        .setParam(PARAM_GROUP_NAME, "anyone")
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();
}

@Test
public void fail_when_removing_USER_permission_from_group_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.login().addProjectPermission(UserRole.ADMIN, project);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission user can't be removed from a public component");

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, USER)
        .execute();
}

@Test
public void fail_when_removing_CODEVIEWER_permission_from_group_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);

```



```

ComponentDto project = db.components().insertPublicProject(organization);
userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

expectedException.expect(BadRequestException.class);
expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

newRequest()
    .setParam(PARAM_ORGANIZATION, organization.getKey())
    .setParam(PARAM_GROUP_NAME, group.getName())
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .setParam(PARAM_PERMISSION, CODEVIEWER)
    .execute();
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_using_branch_uuid() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_ID, branch.uuid())
        .setParam(PARAM_GROUP_NAME, group.getName())

```

```

        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
    }

private void unsafeInsertProjectPermissionOnAnyone(String perm, ComponentDto project) {
    GroupPermissionDto dto = new GroupPermissionDto()
        .setOrganizationUuid(project.getOrganizationUuid())
        .setGroupId(null)
        .setRole(perm)
        .setResourceId(project.getId());
    db.getClient().groupPermissionDao().insert(db.getSession(), dto);
    db.commit();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Date;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.utils.System2;
import org.sonar.core.util.Uuids;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

```

```

import org.sonarqube.ws.Permissions.CreateTemplateWsResponse;
import org.sonarqube.ws.Permissions.PermissionTemplate;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.lang.String.format;
import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static
org.sonar.server.permission.ws.PermissionRequestValidator.MSG_TEMPLATE_WITH_SAME_NAME;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPattern;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateTemplateNameFormat;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static
org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateDescriptionParameter;
import static
org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateProjectKeyPatternParameter;
import static
org.sonar.server.permission.ws.template.PermissionTemplateDtoToPermissionTemplateResponse.toPermissionTem
plateResponse;
import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_DESCRIPTION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;

public class CreateTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final UserSession userSession;
    private final System2 system;
    private final PermissionWsSupport wsSupport;

    public CreateTemplateAction(DbClient dbClient, UserSession userSession, System2 system, PermissionWsSupport
wsSupport) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.system = system;
        this.wsSupport = wsSupport;
    }

    private static CreateTemplateRequest toCreateTemplateWsRequest(Request request) {
        return new CreateTemplateRequest()
            .setName(request.mandatoryParam(PARAM_NAME))
            .setDescription(request.param(PARAM_DESCRIPTION))
            .setProjectKeyPattern(request.param(PARAM_PROJECT_KEY_PATTERN))
            .setOrganization(request.param(PARAM_ORGANIZATION));
    }

```

```

}

private static CreateTemplateWsResponse buildResponse(PermissionTemplateDto permissionTemplateDto) {
    PermissionTemplate permissionTemplateBuilder = toPermissionTemplateResponse(permissionTemplateDto);
    return CreateTemplateWsResponse.newBuilder().setPermissionTemplate(permissionTemplateBuilder).build();
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("create_template")
        .setDescription("Create a permission template.<br />" +
            "Requires the following permission: 'Administer System'.")
        .setResponseExample(getClass().getResource("create_template-example.json"))
        .setSince("5.2")
        .setPost(true)
        .setHandler(this);

    action.createParam(PARAM_NAME)
        .setRequired(true)
        .setDescription("Name")
        .setExampleValue("Financial Service Permissions");

    createTemplateProjectKeyPatternParameter(action);
    createTemplateDescriptionParameter(action);
    createOrganizationParameter(action).setSince("6.2");
}

@Override
public void handle(Request request, Response response) throws Exception {
    CreateTemplateWsResponse createTemplateWsResponse = doHandle(toCreateTemplateWsRequest(request));
    writeProtobuf(createTemplateWsResponse, request, response);
}

private CreateTemplateWsResponse doHandle(CreateTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        OrganizationDto org = wsSupport.findOrganization(dbSession, request.getOrganization());
        checkGlobalAdmin(userSession, org.getUuid());

        validateTemplateNameForCreation(dbSession, org, request.getName());
        validateProjectPattern(request.getProjectKeyPattern());

        PermissionTemplateDto permissionTemplate = insertTemplate(dbSession, org, request);

        return buildResponse(permissionTemplate);
    }
}

private void validateTemplateNameForCreation(DbSession dbSession, OrganizationDto org, String name) {

```

```

validateTemplateNameFormat(name);

PermissionTemplateDto permissionTemplateWithSameName = dbClient.permissionTemplateDao()
    .selectByName(dbSession, org.getUuid(), name);
checkRequest(permissionTemplateWithSameName == null, format(MSG_TEMPLATE_WITH_SAME_NAME,
name));
}

private PermissionTemplateDto insertTemplate(DbSession dbSession, OrganizationDto org,
CreateTemplateRequest request) {
    Date now = new Date(system.now());
    PermissionTemplateDto template = dbClient.permissionTemplateDao().insert(dbSession, new
PermissionTemplateDto()
        .setUuid(Uuids.create())
        .setOrganizationUuid(org.getUuid())
        .setName(request.getName())
        .setDescription(request.getDescription())
        .setKeyPattern(request.getProjectKeyPattern())
        .setCreatedAt(now)
        .setUpdatedAt(now));
    dbSession.commit();
    return template;
}

private static class CreateTemplateRequest {
    private String description;
    private String name;
    private String projectKeyPattern;
    private String organization;

    @CheckForNull
    public String getDescription() {
        return description;
    }

    public CreateTemplateRequest setDescription(@Nullable String description) {
        this.description = description;
        return this;
    }

    public String getName() {
        return name;
    }

    public CreateTemplateRequest setName(String name) {
        this.name = requireNonNull(name);
        return this;
    }
}

```

```

@CheckForNull
public String getProjectKeyPattern() {
    return projectKeyPattern;
}

public CreateTemplateRequest setProjectKeyPattern(@Nullable String projectKeyPattern) {
    this.projectKeyPattern = projectKeyPattern;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public CreateTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
@ParametersAreNonnullByDefault
package org.sonarqube.ws.client.permission;

import javax.annotation.ParametersAreNonnullByDefault;
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA

```

* mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
import React from 'react';
import PropTypes from 'prop-types';
import HelpTooltip from '../components/controls/HelpTooltip';
import { translate } from '../helpers/110n';
import InstanceMessage from '../components/common/InstanceMessage';

export default class ListHeader extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    permissions: PropTypes.array.isRequired
  };

  renderTooltip = permission =>
    permission.key === 'user' || permission.key === 'codeviewer' ? (
      <div>
        <InstanceMessage message={translate('projects_role', permission.key, 'desc')} />
        <div className="alert alert-warning spacer-top">
          {translate('projects_role.public_projects_warning')}
        </div>
      </div>
    ) : (
      <InstanceMessage message={translate('projects_role', permission.key, 'desc')} />
    );

  render() {
    const cells = this.props.permissions.map(permission => (
      <th className="permission-column" key={permission.key}>
        <span className="text-middle">{translate('projects_role', permission.key)}</span>
        <HelpTooltip className="spacer-left" overlay={this.renderTooltip(permission)} />
      </th>
    ));
  }
}
```

```

return (
    <thead>
        <tr>
            <th>&nbsp;</th>
            { cells }
            <th className="thin nowrap text-right">&nbsp;</th>
        </tr>
    </thead>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.ServerException;

import static java.lang.String.format;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;

```



```

import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.component.ComponentTesting.newDirectory;
import static org.sonar.db.component.ComponentTesting.newFileDto;
import static org.sonar.db.component.ComponentTesting.newModuleDto;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.component.ComponentTesting.newSubView;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class AddUserActionTest extends BasePermissionWsTest<AddUserAction> {

    private UserDto user;

    @Before
    public void setUp() {
        user = db.users().insertUser("ray.bradbury");
        db.organizations().addMember(db.getDefaultOrganization(), user);
    }

    @Override
    protected AddUserAction buildWsAction() {
        return new AddUserAction(db.getDbClient(), userSession, newPermissionUpdater(),
newPermissionWsSupport());
    }

    @Test
    public void add_permission_to_user_on_default_organization_if_organization_is_not_specified() {
        loginAsAdmin(db.getDefaultOrganization());

        newRequest()
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
            .execute();

        assertThat(db.users().selectPermissionsOfUser(user, db.getDefaultOrganization()).containsOnly(ADMINISTER);
    }

    @Test
    public void add_permission_to_user_on_specified_organization() {
        OrganizationDto organization = db.organizations().insert();
        addUserAsMemberOfOrganization(organization);
        loginAsAdmin(organization);
    }
}

```

```

newRequest()
    .setParam(PARAM_ORGANIZATION, organization.getKey())
    .setParam(PARAM_USER_LOGIN, user.getLogin())
    .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
    .execute();

assertThat(db.users().selectPermissionsOfUser(user, organization)).containsOnly(ADMINISTER);
}

@Test
public void add_permission_to_project_referenced_by_its_id() {
    OrganizationDto organization = db.organizations().insert();
    addUserAsMemberOfOrganization(organization);
    ComponentDto project = db.components().insertPrivateProject(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectPermissionsOfUser(user, organization)).isEmpty();
    assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void add_permission_to_project_referenced_by_its_key() {
    ComponentDto project = db.components().insertPrivateProject();
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectPermissionsOfUser(user, db.getDefaultOrganization())).isEmpty();
    assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void add_permission_to_view() {
    ComponentDto view = db.components().insertComponent(new View(db.getDefaultOrganization(), "view-
uuid").setDbKey("view-key"));
    loginAsAdmin(db.getDefaultOrganization());

```

```

newRequest()
    .setParam(PARAM_USER_LOGIN, user.getLogin())
    .setParam(PARAM_PROJECT_ID, view.uuid())
    .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
    .execute();

assertThat(db.users().selectPermissionsOfUser(user, db.getDefaultOrganization()).isEmpty());
assertThat(db.users().selectProjectPermissionsOfUser(user, view)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void fail_when_project_uuid_is_unknown() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, "unknown-project-uuid")
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_component_is_a_module() {
    ComponentDto module =
db.components().insertComponent(newModuleDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));

    failIfComponentIsNotAProjectOrView(module);
}

@Test
public void fail_when_component_is_a_directory() {
    ComponentDto file =
db.components().insertComponent(newDirectory(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), "A/B"));

    failIfComponentIsNotAProjectOrView(file);
}

@Test
public void fail_when_component_is_a_file() {
    ComponentDto file =
db.components().insertComponent(newFileDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), null, "file-uuid"));

    failIfComponentIsNotAProjectOrView(file);
}

```

```

}

@Test
public void fail_when_component_is_a_subview() {
    ComponentDto file =
db.components().insertComponent(newSubView(ComponentTesting.newView(db.organizations().insert())));

    failIfComponentIsNotAProjectOrView(file);
}

private void failIfComponentIsNotAProjectOrView(ComponentDto file) {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Component '" + file.getDbKey() + "' (id: " + file.uuid() + ") must be a project
or a view.");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, file.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_project_permission_without_project() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, UserRole.ISSUE_ADMIN)
        .execute();
}

@Test
public void fail_when_component_is_not_a_project() {
    db.components().insertComponent(newFileDto(newPrivateProjectDto(db.organizations().insert(), "project-uuid"),
null, "file-uuid"));
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, "file-uuid")
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)

```

```

        .execute();
    }

    @Test
    public void fail_when_get_request() {
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(ServerException.class);

        newRequest()
            .setMethod("GET")
            .setParam(PARAM_USER_LOGIN, "george.orwell")
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
            .execute();
    }

    @Test
    public void fail_when_user_login_is_missing() {
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(IllegalArgumentException.class);

        newRequest()
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
            .execute();
    }

    @Test
    public void fail_when_permission_is_missing() {
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(NotFoundException.class);

        newRequest()
            .setParam(PARAM_USER_LOGIN, "jrr.tolkien")
            .execute();
    }

    @Test
    public void fail_when_project_uuid_and_project_key_are_provided() {
        db.components().insertPrivateProject();
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(BadRequestException.class);
        expectedException.expectMessage("Project id or project key can be provided, not both.");

        newRequest()
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)

```

```

        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, "project-uuid")
        .setParam(PARAM_PROJECT_KEY, "project-key")
        .execute();
    }

@Test
public void adding_global_permission_fails_if_not_administrator_of_organization() {
    userSession.login();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void adding_project_permission_fails_if_not_administrator_of_project() {
    ComponentDto project = db.components().insertPrivateProject();
    userSession.login();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
}

/**
 * User is project administrator but not system administrator
 */
@Test
public void adding_project_permission_is_allowed_to_project_administrators() {
    ComponentDto project = db.components().insertPrivateProject();

    userSession.login().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .setParam(PARAM_PERMISSION, UserRole.ISSUE_ADMIN)
        .execute();

    assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(ISSUE_ADMIN);
}

```

```

}

@Test
public void organization_parameter_must_not_be_set_on_project_permissions() {
    ComponentDto project = db.components().insertPrivateProject();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("Organization must not be set when project is set.");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .setParam(PARAM_ORGANIZATION, "an_org")
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();
}

```

```

@Test
public void fail_to_add_permission_when_user_is_not_member_of_given_organization() {
    // User is not member of given organization
    OrganizationDto otherOrganization = db.organizations().insert();
    addUserAsMemberOfOrganization(otherOrganization);
    OrganizationDto organization = db.organizations().insert(organizationDto ->
organizationDto.setKey("Organization key"));
    loginAsAdmin(organization);

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("User 'ray.bradbury' is not member of organization 'Organization key'");

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

```

```

@Test
public void no_effect_when_adding_USER_permission_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    addUserAsMemberOfOrganization(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, USER)

```

```

        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void no_effect_when_adding_CODEVIEWER_permission_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    addUserAsMemberOfOrganization(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    addUserAsMemberOfOrganization(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_using_branch_uuid() {
    OrganizationDto organization = db.organizations().insert();
    addUserAsMemberOfOrganization(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);
}

```



```

        expectedException.expect(NotFoundException.class);
        expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

        newRequest()
            .setParam(PARAM_ORGANIZATION, organization.getKey())
            .setParam(PARAM_PROJECT_ID, branch.uuid())
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
            .execute();
    }

    private void addUserAsMemberOfOrganization(OrganizationDto organization) {
        db.organizations().addMember(organization, user);
    }

}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import com.google.common.collect.FluentIterable;
import java.util.Set;
import java.util.regex.Pattern;
import java.util.regex.PatternSyntaxException;
import javax.annotation.Nullable;
import org.sonar.api.resources.ResourceType;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;

```

```

import static com.google.common.base.Strings.isNullOrEmpty;
import static java.lang.String.format;
import static org.apache.commons.lang.StringUtils.isBlank;
import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;

public class PermissionRequestValidator {
    public static final String MSG_TEMPLATE_WITH_SAME_NAME = "A template with the name '%s' already exists (case insensitive).";
    public static final String MSG_TEMPLATE_NAME_NOT_BLANK = "The template name must not be blank";

    private PermissionRequestValidator() {
        // static methods only
    }

    public static String validateProjectPermission(String permission) {
        checkRequest(ProjectPermissions.ALL.contains(permission),
            format("The '%s' parameter for project permissions must be one of %s. '%s' was passed.",
                PARAM_PERMISSION, ProjectPermissions.ALL_ON_ONE_LINE, permission));
        return permission;
    }

    public static void validateGlobalPermission(String permission) {
        checkRequest(GlobalPermissions.ALL.contains(permission),
            format("The '%s' parameter for global permissions must be one of %s. '%s' was passed.",
                PARAM_PERMISSION, GlobalPermissions.ALL_ON_ONE_LINE, permission));
    }

    public static void validateNotAnyoneAndAdminPermission(String permission, GroupIdOrAnyone group) {
        checkRequest(!GlobalPermissions.SYSTEM_ADMIN.equals(permission) || !group.isAnyone(),
            format("It is not possible to add the '%s' permission to group 'Anyone'.", permission));
    }

    public static void validateTemplateNameFormat(String name) {
        checkRequest(!isBlank(name), MSG_TEMPLATE_NAME_NOT_BLANK);
    }

    public static void validateQualifier(String qualifier, Set<String> rootQualifiers) {
        checkRequest(rootQualifiers.contains(qualifier),
            format("The '%s' parameter must be one of %s. '%s' was passed.", PARAM_QUALIFIER, rootQualifiers,
                qualifier));
    }

    public static void validateQualifier(@Nullable String qualifier, ResourceTypes resourceTypes) {
        if (qualifier == null) {

```

```

    return;
}
Set<String> rootQualifiers = FluentIterable.from(resourceTypes.getRoots())
    .transform(ResourceType::getQualifier)
    .toSet();
checkRequest(rootQualifiers.contains(qualifier),
    format("The '%s' parameter must be one of %s. '%s' was passed.", PARAM_QUALIFIER, rootQualifiers,
qualifier));
}

public static void validateProjectPattern(@Nullable String projectPattern) {
    if (isEmpty(projectPattern)) {
        return;
    }

    try {
        Pattern.compile(projectPattern);
    } catch (PatternSyntaxException e) {
        throw BadRequestException.create(format("The '%s' parameter must be a valid Java regular expression. '%s' was
passed", PARAM_PROJECT_KEY_PATTERN, projectPattern));
    }
}
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Test;
import org.sonar.api.security.DefaultGroups;
import org.sonar.db.component.ComponentDto;

```

```

import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;

import static java.lang.String.format;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;

```

```

public class GroupsActionTest extends BasePermissionWsTest<GroupsAction> {

```

```

    private GroupDto group1;
    private GroupDto group2;
    private GroupDto group3;

```

```

    @Override

```

```

    protected GroupsAction buildWsAction() {
        return new GroupsAction(
            db.getClient(),
            userSession,
            newPermissionWsSupport());
    }

```

```

    @Before

```

```

    public void setUp() {
        OrganizationDto defOrg = db.getDefaultOrganization();
        group1 = db.users().insertGroup(defOrg, "group-1-name");
        group2 = db.users().insertGroup(defOrg, "group-2-name");
        group3 = db.users().insertGroup(defOrg, "group-3-name");
        db.users().insertPermissionOnGroup(group1, SCAN);
        db.users().insertPermissionOnGroup(group2, SCAN);
        db.users().insertPermissionOnGroup(group3, ADMINISTER);
    }

```

```

db.users().insertPermissionOnAnyone(defOrg, SCAN);
db.commit();
}

@Test
public void search_for_groups_with_one_permission() {
    loginAsAdmin(db.getDefaultOrganization());

    String json = newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())
        .execute()
        .getInput();
    assertJson(json).isSimilarTo("{\n" +
        "  \"paging\": {\n" +
        "    \"pageIndex\": 1,\n" +
        "    \"pageSize\": 20,\n" +
        "    \"total\": 3\n" +
        "  },\n" +
        "  \"groups\": [\n" +
        "    {\n" +
        "      \"name\": \"Anyone\",\n" +
        "      \"permissions\": [\n" +
        "        \"scan\"\n" +
        "      ]\n" +
        "    },\n" +
        "    {\n" +
        "      \"name\": \"group-1-name\",\n" +
        "      \"description\": \"\" + group1.getDescription() + "\",\n" +
        "      \"permissions\": [\n" +
        "        \"scan\"\n" +
        "      ]\n" +
        "    },\n" +
        "    {\n" +
        "      \"name\": \"group-2-name\",\n" +
        "      \"description\": \"\" + group2.getDescription() + "\",\n" +
        "      \"permissions\": [\n" +
        "        \"scan\"\n" +
        "      ]\n" +
        "    }\n" +
        "  ]\n");
}

@Test
public void search_with_selection() {
    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())

```

```

        .execute()
        .getInput();

    assertThat(result).containsSubsequence(DefaultGroups.ANYONE, "group-1", "group-2");
}

@Test
public void search_groups_with_pagination() {
    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())
        .setParam(PAGE_SIZE, "1")
        .setParam(PAGE, "3")
        .execute()
        .getInput();

    assertThat(result).contains("group-2")
        .doesNotContain("group-1")
        .doesNotContain("group-3");
}

@Test
public void search_groups_with_query() {
    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())
        .setParam(TEXT_QUERY, "group-")
        .execute()
        .getInput();

    assertThat(result)
        .contains("group-1", "group-2")
        .doesNotContain(DefaultGroups.ANYONE);
}

@Test
public void search_groups_with_project_permissions() {
    OrganizationDto organizationDto = db.getDefaultOrganization();
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(organizationDto, "project-
    uuid"));
    GroupDto group = db.users().insertGroup(organizationDto, "project-group-name");
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);

    ComponentDto anotherProject =
    db.components().insertComponent(ComponentTesting.newPrivateProjectDto(organizationDto));
    GroupDto anotherGroup = db.users().insertGroup(organizationDto, "another-project-group-name");
    db.users().insertProjectPermissionOnGroup(anotherGroup, ISSUE_ADMIN, anotherProject);
}

```

```

GroupDto groupWithoutPermission = db.users().insertGroup(organizationDto, "group-without-permission");

userSession.logIn().addProjectPermission(ADMIN, project);
String result = newRequest()
    .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
    .setParam(PARAM_PROJECT_ID, "project-uuid")
    .execute()
    .getInput();

assertThat(result).contains(group.getName())
    .doesNotContain(anotherGroup.getName())
    .doesNotContain(groupWithoutPermission.getName());
}

@Test
public void return_also_groups_without_permission_when_search_query() {
    OrganizationDto organizationDto = db.getDefaultOrganization();
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(organizationDto, "project-
uuid"));
    GroupDto group = db.users().insertGroup(organizationDto, "group-with-permission");
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);

    GroupDto groupWithoutPermission = db.users().insertGroup(organizationDto, "group-without-permission");
    GroupDto anotherGroup = db.users().insertGroup(organizationDto, "another-group");

    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .setParam(PARAM_PROJECT_ID, "project-uuid")
        .setParam(TEXT_QUERY, "group-with")
        .execute()
        .getInput();

    assertThat(result).contains(group.getName())
        .doesNotContain(groupWithoutPermission.getName())
        .doesNotContain(anotherGroup.getName());
}

@Test
public void return_only_groups_with_permission_when_no_search_query() {
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.getDefaultOrganization(),
"project-uuid"));
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "project-group-name");
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);

    GroupDto groupWithoutPermission = db.users().insertGroup(db.getDefaultOrganization(), "group-without-
permission");

```

```

loginAsAdmin(db.getDefaultOrganization());
String result = newRequest()
    .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .execute()
    .getInput();

assertThat(result).contains(group.getName())
    .doesNotContain(groupWithoutPermission.getName());
}

@Test
public void return_anyone_group_when_search_query_and_no_param_permission() {
    OrganizationDto organizationDto = db.organizations().insert();
    ComponentDto project = db.components().insertComponent(newPrivateProjectDto(organizationDto, "project-
uuid"));
    GroupDto group = db.users().insertGroup(organizationDto, "group-with-permission");
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);

    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(TEXT_QUERY, "nyo")
        .execute()
        .getInput();

    assertThat(result).contains("Anyone");
}

@Test
public void search_groups_on_views() {
    ComponentDto view = db.components().insertComponent(newView(db.getDefaultOrganization(), "view-
uuid").setDbKey("view-key"));
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "project-group-name");
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, view);

    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .setParam(PARAM_PROJECT_ID, "view-uuid")
        .execute()
        .getInput();

    assertThat(result).contains("project-group-name")
        .doesNotContain("group-1")
        .doesNotContain("group-2")
        .doesNotContain("group-3");
}

```



```

@Test
public void fail_if_not_logged_in() {
    expectedException.expect(UnauthorizedException.class);
    userSession.anonymous();

    newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())
        .execute();
}

@Test
public void fail_if_insufficient_privileges() {
    expectedException.expect(ForbiddenException.class);

    userSession.login("login");
    newRequest()
        .setParam(PARAM_PERMISSION, SCAN.getKey())
        .execute();
}

@Test
public void fail_if_project_uuid_and_project_key_are_provided() {
    db.components().insertComponent(newPrivateProjectDto(db.organizations().insert(), "project-
uuid").setDbKey("project-key"));

    expectedException.expect(BadRequestException.class);

    loginAsAdmin(db.getDefaultOrganization());
    newRequest()
        .setParam(PARAM_PERMISSION, SCAN_EXECUTION)
        .setParam(PARAM_PROJECT_ID, "project-uuid")
        .setParam(PARAM_PROJECT_KEY, "project-key")
        .execute();
}

@Test
public void fail_when_using_branch_uuid() {
    ComponentDto project = db.components().insertMainBranch();
    ComponentDto branch = db.components().insertProjectBranch(project);
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization());
    db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

    newRequest()

```

```

        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .setParam(PARAM_PROJECT_ID, branch.uuid())
        .execute();
    }

    @Test
    public void fail_when_using_branch_db_key() {
        ComponentDto project = db.components().insertMainBranch();
        ComponentDto branch = db.components().insertProjectBranch(project);
        GroupDto group = db.users().insertGroup(db.getDefaultOrganization());
        db.users().insertProjectPermissionOnGroup(group, ISSUE_ADMIN, project);
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(NotFoundException.class);
        expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

        newRequest()
            .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
            .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
            .execute();
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import org.sonar.api.i18n.I18n;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.api.server.ws.Request;

```

```

import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.DefaultTemplates;
import org.sonar.db.organization.OrganizationDao;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateQualifier;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.template.WsTemplateRef.newTemplateRef;
import static org.sonar.server.ws.WsParameterBuilder.QualifierParameterContext.newQualifierParameterContext;
import static org.sonar.server.ws.WsParameterBuilder.createDefaultTemplateQualifierParameter;
import static org.sonar.server.ws.WsUtils.checkFoundWithOptional;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class SetDefaultTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport wsSupport;
    private final ResourceTypes resourceTypes;
    private final UserSession userSession;
    private final I18n i18n;

    public SetDefaultTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport, ResourceTypes
resourceTypes,
    UserSession userSession, I18n i18n) {
        this.dbClient = dbClient;
        this.wsSupport = wsSupport;
        this.resourceTypes = resourceTypes;
        this.userSession = userSession;
        this.i18n = i18n;
    }

    private static SetDefaultTemplateRequest toSetDefaultTemplateWsRequest(Request request) {
        return new SetDefaultTemplateRequest()
            .setQualifier(request.param(PARAM_QUALIFIER))
            .setTemplateId(request.param(PARAM_TEMPLATE_ID))
            .setOrganization(request.param(PARAM_ORGANIZATION))

```

```

        .setTemplateName(request.param(PARAM_TEMPLATE_NAME));
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction("set_default_template")
            .setDescription("Set a permission template as default.<br />" +
                "Requires the following permission: 'Administer System'.")
            .setPost(true)
            .setSince("5.2")
            .setHandler(this);

        createTemplateParameters(action);
        createDefaultTemplateQualifierParameter(action, newQualifierParameterContext(i18n, resourceTypes))
            .setDefaultValue(Qualifiers.PROJECT);
    }

    @Override
    public void handle(Request request, Response response) throws Exception {
        doHandle(toSetDefaultTemplateWsRequest(request));
        response.noContent();
    }

    private void doHandle(SetDefaultTemplateRequest request) {
        try (DbSession dbSession = dbClient.openSession(false)) {
            String qualifier = request.getQualifier();
            PermissionTemplateDto template = findTemplate(dbSession, request);
            checkGlobalAdmin(userSession, template.getOrganizationUuid());
            validateQualifier(qualifier, resourceTypes);
            setDefaultTemplateUuid(dbSession, template, qualifier);
            dbSession.commit();
        }
    }

    private PermissionTemplateDto findTemplate(DbSession dbSession, SetDefaultTemplateRequest request) {
        return wsSupport.findTemplate(dbSession, newTemplateRef(request.getTemplateId(),
            request.getOrganization(), request.getTemplateName()));
    }

    private void setDefaultTemplateUuid(DbSession dbSession, PermissionTemplateDto permissionTemplateDto,
        String qualifier) {
        String organizationUuid = permissionTemplateDto.getOrganizationUuid();
        OrganizationDao organizationDao = dbClient.organizationDao();

        DefaultTemplates defaultTemplates = checkFoundWithOptional(
            organizationDao.getDefaultTemplates(dbSession, organizationUuid),
            "No Default templates for organization with uuid '%s'", organizationUuid);
        if (Qualifiers.PROJECT.equals(qualifier)) {

```

```

    defaultTemplates.setProjectUuid(permissionTemplateDto.getUuid());
} else if (Qualifiers.VIEW.equals(qualifier)) {
    defaultTemplates.setViewUuid(permissionTemplateDto.getUuid());
}
organizationDao.setDefaultTemplates(dbSession, organizationUuid, defaultTemplates);
}

```

```

private static class SetDefaultTemplateRequest {
    private String qualifier;
    private String templateId;
    private String organization;
    private String templateName;

    @CheckForNull
    public String getQualifier() {
        return qualifier;
    }

    public SetDefaultTemplateRequest setQualifier(@Nullable String qualifier) {
        this.qualifier = qualifier;
        return this;
    }

    @CheckForNull
    public String getTemplateId() {
        return templateId;
    }

    public SetDefaultTemplateRequest setTemplateId(@Nullable String templateId) {
        this.templateId = templateId;
        return this;
    }

    @CheckForNull
    public String getOrganization() {
        return organization;
    }

    public SetDefaultTemplateRequest setOrganization(@Nullable String s) {
        this.organization = s;
        return this;
    }

    @CheckForNull
    public String getTemplateName() {
        return templateName;
    }
}

```

```

public SetDefaultTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}
}
}
/*
* Copyright (c) 2004-2007 QOS.ch
* All rights reserved.
*
* Permission is hereby granted, free of charge, to any person obtaining
* a copy of this software and associated documentation files (the
* "Software"), to deal in the Software without restriction, including
* without limitation the rights to use, copy, modify, merge, publish,
* distribute, sublicense, and/or sell copies of the Software, and to
* permit persons to whom the Software is furnished to do so, subject to
* the following conditions:
*
* The above copyright notice and this permission notice shall be
* included in all copies or substantial portions of the Software.
*
* THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
* EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF
* MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
* NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE
* LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION
* OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION
* WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
*/

```

The person or persons who have associated work with this document (the "Dedicator" or "Certifier") hereby either (a) certifies that, to the best of his knowledge, the work of authorship identified is in the public domain of the country from which the work is published, or (b) hereby dedicates whatever copyright the dedicators holds in the work of authorship identified below (the "Work") to the public domain. A certifier, moreover, dedicates any copyright interest he may have in the associated work, and for these purposes, is described as a "dedicator" below.

A certifier has taken reasonable steps to verify the copyright status of this work. Certifier recognizes that his good faith efforts may not shield him from liability if in fact the work certified is not in the public domain.

Dedicator makes this dedication for the benefit of the public at large and to the detriment of the Dedicator's heirs and successors. Dedicator intends this dedication to be an overt act of relinquishment in perpetuity of all present and future rights under copyright law, whether vested or contingent, in the Work. Dedicator understands that such relinquishment of all rights includes the relinquishment of all rights to enforce (by lawsuit or otherwise) those

copyrights in the Work.

Dedicator recognizes that, once placed in the public domain, the Work may be freely reproduced, distributed, transmitted, used, modified, built upon, or otherwise exploited by anyone for any purpose, commercial or non-commercial, and in any way, including by methods that have not yet been invented or conceived.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.db.permission.template;
```

```
import javax.annotation.Nullable;
```

```
import org.sonar.db.DbClient;
```

```
import org.sonar.db.DbSession;
```

```
import org.sonar.db.DbTester;
```

```
import org.sonar.db.organization.OrganizationDto;
```

```
import org.sonar.db.user.GroupDto;
```

```
import org.sonar.db.user.UserDto;
```

```
import static
```

```
org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateCharacteristicDto;
```

```
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;
```

```
public class PermissionTemplateDbTester {
```

```
    private final DbTester db;
```

```
    private final DbClient dbClient;
```

```
    private final DbSession dbSession;
```

```
    public PermissionTemplateDbTester(DbTester db) {
```

```
        this.db = db;
```

```
        this.dbClient = db.getDbClient();
```

```

    this.dbSession = db.getSession();
}

public PermissionTemplateDto insertTemplate() {
    return insertTemplate(newPermissionTemplateDto());
}

public PermissionTemplateDto insertTemplate(OrganizationDto organizationDto) {
    return insertTemplate(newPermissionTemplateDto().setOrganizationUuid(organizationDto.getUuid()));
}

public PermissionTemplateDto insertTemplate(PermissionTemplateDto template) {
    PermissionTemplateDto templateInDb = dbClient.permissionTemplateDao().insert(dbSession, template);
    db.commit();

    return templateInDb;
}

public void addGroupToTemplate(PermissionTemplateDto permissionTemplate, GroupDto group, String
permission) {
    addGroupToTemplate(permissionTemplate.getId(), group.getId(), permission);
}

public void addGroupToTemplate(long templateId, @Nullable Integer groupId, String permission) {
    dbClient.permissionTemplateDao().insertGroupPermission(dbSession, templateId, groupId, permission);
    db.commit();
}

public void addAnyoneToTemplate(PermissionTemplateDto permissionTemplate, String permission) {
    addGroupToTemplate(permissionTemplate.getId(), null, permission);
}

public void addUserToTemplate(PermissionTemplateDto permissionTemplate, UserDto user, String permission) {
    addUserToTemplate(permissionTemplate.getId(), user.getId(), permission);
}

public void addUserToTemplate(long templateId, int userId, String permission) {
    dbClient.permissionTemplateDao().insertUserPermission(dbSession, templateId, userId, permission);
    db.commit();
}

public void addProjectCreatorToTemplate(PermissionTemplateDto permissionTemplate, String permission) {
    addProjectCreatorToTemplate(permissionTemplate.getId(), permission);
}

public void addProjectCreatorToTemplate(long templateId, String permission) {
    dbClient.permissionTemplateCharacteristicDao().insert(dbSession, newPermissionTemplateCharacteristicDto()
        .setWithProjectCreator(true)

```



```

        .setTemplateId(templateId)
        .setPermission(permission));
    db.commit();
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
import org.sonar.api.server.ws.Request;

import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

/**
 * Reference to a template as defined by WS request. Guaranties one of template id or
 * template name is provided, not both.
 */
public class WsTemplateRef {

    private final String uuid;
    private final String organization;
    private final String name;

    private WsTemplateRef(@Nullable String uuid, @Nullable String organization, @Nullable String name) {
        checkRequest(uuid != null ^ name != null, "Template name or template id must be provided, not both.");
    }

```

```

    this.uuid = uuid;
    this.organization = organization;
    this.name = name;
}

public static WsTemplateRef fromRequest(Request wsRequest) {
    String uuid = wsRequest.param(PARAM_TEMPLATE_ID);
    String organization = wsRequest.param(PARAM_ORGANIZATION);
    String name = wsRequest.param(PARAM_TEMPLATE_NAME);

    return new WsTemplateRef(uuid, organization, name);
}

public static WsTemplateRef newTemplateRef(@Nullable String uuid, @Nullable String organization, @Nullable
String name) {
    return new WsTemplateRef(uuid, organization, name);
}

@CheckForNull
public String uuid() {
    return this.uuid;
}

@CheckForNull
public String getOrganization() {
    return this.organization;
}

@CheckForNull
public String name() {
    return this.name;
}
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
*/

```

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws;
```

```
import java.util.Locale;  
import org.sonar.api.i18n.I18n;  
import org.sonar.api.server.ws.Request;  
import org.sonar.api.server.ws.Response;  
import org.sonar.api.server.ws.WebService;  
import org.sonar.db.DbClient;  
import org.sonar.db.DbSession;  
import org.sonar.db.organization.OrganizationDto;  
import org.sonar.db.permission.OrganizationPermission;  
import org.sonar.db.permission.PermissionQuery;  
import org.sonar.server.user.UserSession;  
import org.sonarqube.ws.Permissions.Permission;  
import org.sonarqube.ws.Permissions.WsSearchGlobalPermissionsResponse;
```

```
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;  
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;  
import static org.sonar.server.ws.WsUtils.writeProtobuf;  
import static org.sonarqube.ws.Permissions.Permission.newBuilder;  
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
```

```
public class SearchGlobalPermissionsAction implements PermissionsWsAction {
```

```
    public static final String ACTION = "search_global_permissions";  
    private static final String PROPERTY_PREFIX = "global_permissions.";  
    private static final String DESCRIPTION_SUFFIX = ".desc";
```

```
    private final DbClient dbClient;  
    private final UserSession userSession;  
    private final I18n i18n;  
    private final PermissionWsSupport support;
```

```
    public SearchGlobalPermissionsAction(DbClient dbClient, UserSession userSession, I18n i18n,  
    PermissionWsSupport support) {  
        this.dbClient = dbClient;  
        this.userSession = userSession;  
        this.i18n = i18n;  
        this.support = support;  
    }
```

```
    @Override  
    public void define(WebService.NewController context) {  
        WebService.NewAction action = context.createAction(ACTION)
```

```

        .setDescription("List global permissions. <br />" +
            "Requires the following permission: 'Administer System'")
        .setResponseExample(getClass().getResource("search_global_permissions-example.json"))
        .setSince("5.2")
        .setDeprecatedSince("6.5")
        .setHandler(this);

createOrganizationParameter(action).setSince("6.2");
}

@Override
public void handle(Request wsRequest, Response wsResponse) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        OrganizationDto org = support.findOrganization(dbSession, wsRequest.param(PARAM_ORGANIZATION));
        checkGlobalAdmin(userSession, org.getUuid());

        WsSearchGlobalPermissionsResponse response = buildResponse(dbSession, org);
        writeProtobuf(response, wsRequest, wsResponse);
    }
}

private WsSearchGlobalPermissionsResponse buildResponse(DbSession dbSession, OrganizationDto org) {
    WsSearchGlobalPermissionsResponse.Builder response = WsSearchGlobalPermissionsResponse.newBuilder();
    Permission.Builder permission = newBuilder();

    OrganizationPermission.all()
        .map(OrganizationPermission::getKey)
        .forEach(permissionKey -> {
            PermissionQuery query = permissionQuery(permissionKey, org);
            response.addPermissions(
                permission
                    .clear()
                    .setKey(permissionKey)
                    .setName(i18nName(permissionKey))
                    .setDescription(i18nDescriptionMessage(permissionKey))
                    .setUsersCount(countUsers(dbSession, query))
                    .setGroupsCount(countGroups(dbSession, org, permissionKey)));
        });

    return response.build();
}

private String i18nDescriptionMessage(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey + DESCRIPTION_SUFFIX, "");
}

private String i18nName(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey, permissionKey);
}

```

```

}

private int countGroups(DbSession dbSession, OrganizationDto org, String permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(org.getUuid()).setPermission(permission).build();
    return dbClient.groupPermissionDao().countGroupsByQuery(dbSession, query);
}

private int countUsers(DbSession dbSession, PermissionQuery permissionQuery) {
    return dbClient.userPermissionDao().countUsersByQuery(dbSession, permissionQuery);
}

private static PermissionQuery permissionQuery(String permissionKey, OrganizationDto org) {
    return PermissionQuery.builder()
        .setOrganizationUuid(org.getUuid())
        .setPermission(permissionKey)
        .withAtLeastOnePermission()
        .build();
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDto;

```

```

import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.es.TestProjectIndexers;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.permission.PermissionTemplateService;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;
import org.sonar.server.ws.TestResponse;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class ApplyTemplateActionTest extends BasePermissionWsTest<ApplyTemplateAction> {

    @Rule
    public DefaultTemplatesResolverRule defaultTemplatesResolver =
        DefaultTemplatesResolverRule.withoutGovernance();
    private UserDto user1;
    private UserDto user2;
    private GroupDto group1;
    private GroupDto group2;
    private ComponentDto project;
    private PermissionTemplateDto template1;
    private PermissionTemplateDto template2;

    private PermissionTemplateService permissionTemplateService = new
        PermissionTemplateService(db.getDbClient(),
            new TestProjectIndexers(), userSession, defaultTemplatesResolver);

    @Override
    protected ApplyTemplateAction buildWsAction() {
        return new ApplyTemplateAction(db.getDbClient(), userSession, permissionTemplateService,
            newPermissionWsSupport());
    }

    @Before
    public void setUp() {
        user1 = db.users().insertUser();
        db.organizations().addMember(db.getDefaultOrganization(), user1);
        user2 = db.users().insertUser();
    }
}

```

```

db.organizations().addMember(db.getDefaultOrganization(), user2);
group1 = db.users().insertGroup();
group2 = db.users().insertGroup();

// template 1
template1 = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
addUserToTemplate(user1, template1, UserRole.CODEVIEWER);
addUserToTemplate(user2, template1, UserRole.ISSUE_ADMIN);
addGroupToTemplate(group1, template1, UserRole.ADMIN);
addGroupToTemplate(group2, template1, UserRole.USER);
// template 2
template2 = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
addUserToTemplate(user1, template2, UserRole.USER);
addUserToTemplate(user2, template2, UserRole.USER);
addGroupToTemplate(group1, template2, UserRole.USER);
addGroupToTemplate(group2, template2, UserRole.USER);

project = db.components().insertPrivateProject();
db.users().insertProjectPermissionOnUser(user1, UserRole.ADMIN, project);
db.users().insertProjectPermissionOnUser(user2, UserRole.ADMIN, project);
db.users().insertProjectPermissionOnGroup(group1, UserRole.ADMIN, project);
db.users().insertProjectPermissionOnGroup(group2, UserRole.ADMIN, project);
}

@Test
public void apply_template_with_project_uuid() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest(template1.getUuid(), project.uuid(), null);

    assertTemplate1AppliedToProject();
}

@Test
public void apply_template_with_project_uuid_by_template_name() {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_TEMPLATE_NAME, template1.getName().toUpperCase())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .execute();

    assertTemplate1AppliedToProject();
}

@Test
public void apply_template_with_project_key() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

```

```

newRequest(template1.getUuid(), null, project.getDbKey());

assertTemplate1AppliedToProject();
}

@Test
public void fail_when_unknown_template() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-template-uuid' is not found");

    newRequest("unknown-template-uuid", project.uuid(), null);
}

@Test
public void fail_when_unknown_project_uuid() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Project id 'unknown-project-uuid' not found");

    newRequest(template1.getUuid(), "unknown-project-uuid", null);
}

@Test
public void fail_when_unknown_project_key() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Project key 'unknown-project-key' not found");

    newRequest(template1.getUuid(), null, "unknown-project-key");
}

@Test
public void fail_when_template_is_not_provided() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(null, project.uuid(), null);
}

@Test
public void fail_when_project_uuid_and_key_not_provided() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

```



```

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Project id or project key can be provided, not both.");

    newRequest(template1.getUuid(), null, null);
}

@Test
public void fail_when_not_admin_of_organization() throws Exception {
    userSession.logIn().addPermission(ADMINISTER, "otherOrg");

    expectedException.expect(ForbiddenException.class);

    newRequest(template1.getUuid(), project.uuid(), null);
}

private void assertTemplate1AppliedToProject() {
    assertThat(selectProjectPermissionGroups(project, UserRole.ADMIN)).containsExactly(group1.getName());
    assertThat(selectProjectPermissionGroups(project, UserRole.USER)).containsExactly(group2.getName());
    assertThat(selectProjectPermissionUsers(project, UserRole.ADMIN)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.CODEVIEWER)).containsExactly(user1.getId());
    assertThat(selectProjectPermissionUsers(project, UserRole.ISSUE_ADMIN)).containsExactly(user2.getId());
}

private TestResponse newRequest(@Nullable String templateUuid, @Nullable String projectUuid, @Nullable
String projectKey) {
    TestRequest request = newRequest();
    if (templateUuid != null) {
        request.setParam(PARAM_TEMPLATE_ID, templateUuid);
    }
    if (projectUuid != null) {
        request.setParam(PARAM_PROJECT_ID, projectUuid);
    }
    if (projectKey != null) {
        request.setParam(PARAM_PROJECT_KEY, projectKey);
    }

    return request.execute();
}

private void addUserToTemplate(UserDto user, PermissionTemplateDto permissionTemplate, String permission) {
    db.getClient().permissionTemplateDao().insertUserPermission(db.getSession(), permissionTemplate.getId(),
user.getId(), permission);
    db.commit();
}

private void addGroupToTemplate(GroupDto group, PermissionTemplateDto permissionTemplate, String
permission) {

```

```

    db.getClient().permissionTemplateDao().insertGroupPermission(db.getSession(), permissionTemplate.getId(),
group.getId(), permission);
    db.commit();
}

private List<String> selectProjectPermissionGroups(ComponentDto project, String permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(project.getOrganizationUuid()).setPermission(permission).setComp
onentUuid(project.uuid()).build();
    return db.getClient().groupPermissionDao().selectGroupNamesByQuery(db.getSession(), query);
}

private List<Integer> selectProjectPermissionUsers(ComponentDto project, String permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(project.getOrganizationUuid()).setPermission(permission).setComp
onentUuid(project.uuid()).build();
    return db.getClient().userPermissionDao().selectUserIdsByQuery(db.getSession(), query);
}
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.utils.internal.AlwaysIncreasingSystem2;
import org.sonar.api.web.UserRole;

```

```

import org.sonar.core.permission.GlobalPermissions;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateDbTester;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.es.ProjectIndexers;
import org.sonar.server.es.TestProjectIndexers;
import org.sonar.server.permission.ws.template.DefaultTemplatesResolverRule;
import org.sonar.server.testers.UserSessionRule;

import static java.util.Collections.singletonList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;

public class PermissionTemplateServiceTest {

    @Rule
    public ExpectedException throwable = ExpectedException.none();
    @Rule
    public DbTester dbTester = DbTester.create(new AlwaysIncreasingSystem2());
    @Rule
    public DefaultTemplatesResolverRule defaultTemplatesResolver =
    DefaultTemplatesResolverRule.withGovernance();

    private UserSessionRule userSession = UserSessionRule.standalone();
    private PermissionTemplateDbTester templateDb = dbTester.permissionTemplates();
    private DbSession session = dbTester.getSession();
    private ProjectIndexers projectIndexers = new TestProjectIndexers();

    private PermissionTemplateService underTest = new PermissionTemplateService(dbTester.getDbClient(),
    projectIndexers, userSession, defaultTemplatesResolver);

    @Test
    public void apply_does_not_insert_permission_to_group_AnyOne_when_applying_template_on_private_project()
    {
        OrganizationDto organization = dbTester.organizations().insert();
        ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
        PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
        dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "p1");

        underTest.applyAndCommit(session, permissionTemplate, singletonList(privateProject));
    }
}

```

```

    assertThat(selectProjectPermissionsOfGroup(organization, null, privateProject)).isEmpty();
}

@Test
public void
apply_default_does_not_insert_permission_to_group_AnyOne_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    UserDto creator = dbTester.users().insertUser();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), privateProject, creator.getId());

    assertThat(selectProjectPermissionsOfGroup(organization, null, privateProject)).isEmpty();
}

@Test
public void
apply_inserts_permissions_to_group_AnyOne_but_USER_and_CODEVIEWER_when_applying_template_on_public_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, perm));
    dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "p1");

    underTest.applyAndCommit(session, permissionTemplate, singletonList(publicProject));

    assertThat(selectProjectPermissionsOfGroup(organization, null, publicProject))
        .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void
applyDefault_inserts_permissions_to_group_AnyOne_but_USER_and_CODEVIEWER_when_applying_template_on_public_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, perm));
    dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);
}

```

```

underTest.applyDefault(session, organization.getUuid(), publicProject, null);

assertThat(selectProjectPermissionsOfGroup(organization, null, publicProject))
    .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void apply_inserts_any_permissions_to_group_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, perm));
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, "p1");

    underTest.applyAndCommit(session, permissionTemplate, singletonList(privateProject));

    assertThat(selectProjectPermissionsOfGroup(organization, group, privateProject))
        .containsOnly("p1", UserRole.USER, UserRole.CODEVIEWER, UserRole.ADMIN, UserRole.ISSUE_ADMIN,
            GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void applyDefault_inserts_any_permissions_to_group_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    GroupDto group = dbTester.users().insertGroup(organization);
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, perm));
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), privateProject, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group, privateProject))
        .containsOnly("p1", UserRole.USER, UserRole.CODEVIEWER, UserRole.ADMIN, UserRole.ISSUE_ADMIN,
            GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void
    apply_inserts_permissions_to_group_but_USER_and_CODEVIEWER_when_applying_template_on_public_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);

```

```

GroupDto group = dbTester.users().insertGroup(organization);
ProjectPermissions.ALL
    .forEach(perm -> dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, perm));
dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, "p1");

underTest.applyAndCommit(session, permissionTemplate, singletonList(publicProject));

assertThat(selectProjectPermissionsOfGroup(organization, group, publicProject))
    .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void
applyDefault_inserts_permissions_to_group_but_USER_and_CODEVIEWER_when_applying_template_on_public
_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, perm));
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), publicProject, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group, publicProject))
        .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

@Test
public void
apply_inserts_permissions_to_user_but_USER_and_CODEVIEWER_when_applying_template_on_public_project(
) {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, perm));
    dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, "p1");

    underTest.applyAndCommit(session, permissionTemplate, singletonList(publicProject));

    assertThat(selectProjectPermissionsOfUser(user, publicProject))
        .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void
applyDefault_inserts_permissions_to_user_but_USER_and_CODEVIEWER_when_applying_template_on_public_
project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, perm));
    dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), publicProject, null);

    assertThat(selectProjectPermissionsOfUser(user, publicProject))
        .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void apply_inserts_any_permissions_to_user_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, perm));
    dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, "p1");

    underTest.applyAndCommit(session, permissionTemplate, singletonList(privateProject));

    assertThat(selectProjectPermissionsOfUser(user, privateProject))
        .containsOnly("p1", UserRole.USER, UserRole.CODEVIEWER, UserRole.ADMIN, UserRole.ISSUE_ADMIN,
GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void applyDefault_inserts_any_permissions_to_user_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, perm));
    dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), privateProject, null);
}

```

```

    assertThat(selectProjectPermissionsOfUser(user, privateProject))
        .containsOnly("p1", UserRole.USER, UserRole.CODEVIEWER, UserRole.ADMIN, UserRole.ISSUE_ADMIN,
GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void
applyDefault_inserts_permissions_to_ProjectCreator_but_USER_and_CODEVIEWER_when_applying_template_o
n_public_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto publicProject = dbTester.components().insertPublicProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addProjectCreatorToTemplate(permissionTemplate, perm));
    dbTester.permissionTemplates().addProjectCreatorToTemplate(permissionTemplate, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), publicProject, user.getId());

    assertThat(selectProjectPermissionsOfUser(user, publicProject))
        .containsOnly("p1", UserRole.ADMIN, UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void
applyDefault_inserts_any_permissions_to_ProjectCreator_when_applying_template_on_private_project() {
    OrganizationDto organization = dbTester.organizations().insert();
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    ComponentDto privateProject = dbTester.components().insertPrivateProject(organization);
    UserDto user = dbTester.users().insertUser();
    ProjectPermissions.ALL
        .forEach(perm -> dbTester.permissionTemplates().addProjectCreatorToTemplate(permissionTemplate, perm));
    dbTester.permissionTemplates().addProjectCreatorToTemplate(permissionTemplate, "p1");
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), privateProject, user.getId());

    assertThat(selectProjectPermissionsOfUser(user, privateProject))
        .containsOnly("p1", UserRole.USER, UserRole.CODEVIEWER, UserRole.ADMIN, UserRole.ISSUE_ADMIN,
GlobalPermissions.SCAN_EXECUTION);
}

```

```

@Test
public void apply_template_on_view() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto view = dbTester.components().insertView(organization);
}

```



```

PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
GroupDto group = dbTester.users().insertGroup(organization);
dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, ADMINISTER.getKey());
dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group,
PROVISION_PROJECTS.getKey());
dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

underTest.applyDefault(session, organization.getUuid(), view, null);

assertThat(selectProjectPermissionsOfGroup(organization, group, view))
    .containsOnly(ADMINISTER.getKey(), PROVISION_PROJECTS.getKey());
}

@Test
public void apply_default_template_on_view() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto view = dbTester.components().insertView(organization);
    PermissionTemplateDto projectPermissionTemplate =
dbTester.permissionTemplates().insertTemplate(organization);
    PermissionTemplateDto viewPermissionTemplate =
dbTester.permissionTemplates().insertTemplate(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    dbTester.permissionTemplates().addGroupToTemplate(viewPermissionTemplate, group,
ADMINISTER.getKey());
    dbTester.permissionTemplates().addGroupToTemplate(viewPermissionTemplate, group,
PROVISION_PROJECTS.getKey());
    dbTester.organizations().setDefaultTemplates(organization, projectPermissionTemplate.getUuid(),
viewPermissionTemplate.getUuid());

    underTest.applyDefault(session, organization.getUuid(), view, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group, view))
        .containsOnly(ADMINISTER.getKey(), PROVISION_PROJECTS.getKey());
}

@Test
public void apply_project_default_template_on_view_when_no_view_default_template() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto view = dbTester.components().insertView(organization);
    PermissionTemplateDto projectPermissionTemplate =
dbTester.permissionTemplates().insertTemplate(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    dbTester.permissionTemplates().addGroupToTemplate(projectPermissionTemplate, group,
PROVISION_PROJECTS.getKey());
    dbTester.organizations().setDefaultTemplates(organization, projectPermissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), view, null);
}

```

```

    assertThat(selectProjectPermissionsOfGroup(organization, group,
view)).containsOnly(PROVISION_PROJECTS.getKey());
}

@Test
public void apply_template_on_applications() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto application = dbTester.components().insertApplication(organization);
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group, ADMINISTER.getKey());
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, group,
PROVISION_PROJECTS.getKey());
    dbTester.organizations().setDefaultTemplates(organization, permissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), application, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group, application))
        .containsOnly(ADMINISTER.getKey(), PROVISION_PROJECTS.getKey());
}

@Test
public void apply_default_view_template_on_application() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto application = dbTester.components().insertApplication(organization);
    PermissionTemplateDto projectPermissionTemplate =
dbTester.permissionTemplates().insertTemplate(organization);
    PermissionTemplateDto viewPermissionTemplate =
dbTester.permissionTemplates().insertTemplate(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    dbTester.permissionTemplates().addGroupToTemplate(viewPermissionTemplate, group,
ADMINISTER.getKey());
    dbTester.permissionTemplates().addGroupToTemplate(viewPermissionTemplate, group,
PROVISION_PROJECTS.getKey());
    dbTester.organizations().setDefaultTemplates(organization, projectPermissionTemplate.getUuid(),
viewPermissionTemplate.getUuid());

    underTest.applyDefault(session, organization.getUuid(), application, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group, application))
        .containsOnly(ADMINISTER.getKey(), PROVISION_PROJECTS.getKey());
}

@Test
public void apply_project_default_template_on_application_when_no_application_default_template() {
    OrganizationDto organization = dbTester.organizations().insert();
    ComponentDto application = dbTester.components().insertApplication(organization);
    PermissionTemplateDto projectPermissionTemplate =

```

```

dbTester.permissionTemplates().insertTemplate(organization);
    GroupDto group = dbTester.users().insertGroup(organization);
    dbTester.permissionTemplates().addGroupToTemplate(projectPermissionTemplate, group,
PROVISION_PROJECTS.getKey());
dbTester.organizations().setDefaultTemplates(organization, projectPermissionTemplate.getUuid(), null);

    underTest.applyDefault(session, organization.getUuid(), application, null);

    assertThat(selectProjectPermissionsOfGroup(organization, group,
application)).containsOnly(PROVISION_PROJECTS.getKey());
}

@Test
public void apply_permission_template() {
    OrganizationDto organization = dbTester.organizations().insert();
    UserDto user = dbTester.users().insertUser();
    ComponentDto project = dbTester.components().insertPrivateProject(organization);
    GroupDto adminGroup = dbTester.users().insertGroup(organization);
    GroupDto userGroup = dbTester.users().insertGroup(organization);
    dbTester.users().insertPermissionOnGroup(adminGroup, "admin");
    dbTester.users().insertPermissionOnGroup(userGroup, "user");
    dbTester.users().insertPermissionOnUser(organization, user, "admin");
    PermissionTemplateDto permissionTemplate = dbTester.permissionTemplates().insertTemplate(organization);
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, adminGroup, "admin");
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, adminGroup, "issueadmin");
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, userGroup, "user");
    dbTester.permissionTemplates().addGroupToTemplate(permissionTemplate, userGroup, "codeviewer");
    dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "user");
    dbTester.permissionTemplates().addAnyoneToTemplate(permissionTemplate, "codeviewer");
    dbTester.permissionTemplates().addUserToTemplate(permissionTemplate, user, "admin");

    assertThat(selectProjectPermissionsOfGroup(organization, adminGroup, project)).isEmpty();
    assertThat(selectProjectPermissionsOfGroup(organization, userGroup, project)).isEmpty();
    assertThat(selectProjectPermissionsOfGroup(organization, null, project)).isEmpty();
    assertThat(selectProjectPermissionsOfUser(user, project)).isEmpty();

    underTest.applyAndCommit(session, permissionTemplate, singletonList(project));

    assertThat(selectProjectPermissionsOfGroup(organization, adminGroup, project)).containsOnly("admin",
"issueadmin");
    assertThat(selectProjectPermissionsOfGroup(organization, userGroup, project)).containsOnly("user",
"codeviewer");
    assertThat(selectProjectPermissionsOfGroup(organization, null, project)).isEmpty();
    assertThat(selectProjectPermissionsOfUser(user, project)).containsOnly("admin");
}

private List<String> selectProjectPermissionsOfGroup(OrganizationDto organizationDto, @Nullable GroupDto
groupDto, ComponentDto project) {

```

```

return dbTester.getClient().groupPermissionDao().selectProjectPermissionsOfGroup(session,
    organizationDto.getUuid(), groupDto != null ? groupDto.getId() : null, project.getId());
}

```

```

private List<String> selectProjectPermissionsOfUser(UserDto userDto, ComponentDto project) {
    return dbTester.getClient().userPermissionDao().selectProjectPermissionsOfUser(session,
        userDto.getId(), project.getId());
}

```

@Test

```

public void would_user_have_scan_permission_with_default_permission_template() {
    OrganizationDto organization = dbTester.organizations().insert();
    GroupDto group = dbTester.users().insertGroup(organization);
    UserDto user = dbTester.users().insertUser();
    dbTester.users().insertMember(group, user);
    PermissionTemplateDto template = templateDb.insertTemplate(organization);
    dbTester.organizations().setDefaultTemplates(template, null);
    templateDb.addProjectCreatorToTemplate(template.getId(), SCAN_EXECUTION);
    templateDb.addUserToTemplate(template.getId(), user.getId(), UserRole.USER);
    templateDb.addGroupToTemplate(template.getId(), group.getId(), UserRole.CODEVIEWER);
    templateDb.addGroupToTemplate(template.getId(), null, UserRole.ISSUE_ADMIN);
}

```

// authenticated user

```

checkWouldUserHaveScanPermission(organization, user.getId(), true);

```

// anonymous user

```

checkWouldUserHaveScanPermission(organization, null, false);
}

```

@Test

```

public void would_user_have_scan_permission_with_unknown_default_permission_template() {
    dbTester.organizations().setDefaultTemplates(dbTester.getDefaultOrganization(),
"UNKNOWN_TEMPLATE_UUID", null);
}

```

```

checkWouldUserHaveScanPermission(dbTester.getDefaultOrganization(), null, false);
}

```

@Test

```

public void would_user_have_scan_permission_with_empty_template() {
    PermissionTemplateDto template = templateDb.insertTemplate(dbTester.getDefaultOrganization());
    dbTester.organizations().setDefaultTemplates(template, null);
}

```

```

checkWouldUserHaveScanPermission(dbTester.getDefaultOrganization(), null, false);
}

```

```

private void checkWouldUserHaveScanPermission(OrganizationDto organization, @Nullable Integer userId,
boolean expectedResult) {
    assertThat(underTest.wouldUserHaveScanPermissionWithDefaultTemplate(session, organization.getUuid(),

```

```

userId, "PROJECT_KEY", Qualifiers.PROJECT))
    .isEqualTo(expectedResult);
}

}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import java.util.Collections;
import java.util.List;
import java.util.stream.IntStream;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.user.GroupDto;

import static java.util.Arrays.asList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.tuple;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.db.permission.PermissionQuery.builder;
import static org.sonar.db.user.GroupTesting.newGroupDto;

public class GroupWithPermissionTemplateDaoTest {

```

```

@Rule
public DbTester db = DbTester.create(System2.INSTANCE);

private DbSession session = db.getSession();
private PermissionTemplateDbTester permissionTemplateDbTester = db.permissionTemplates();
private PermissionTemplateDao underTest = db.getDbClient().permissionTemplateDao();

@Test
public void select_group_names_by_query_and_template() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(organization, "Group-1");
    GroupDto group2 = db.users().insertGroup(organization, "Group-2");
    GroupDto group3 = db.users().insertGroup(organization, "Group-3");

    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate(organization);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), USER);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), ADMIN);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group2.getId(), PROVISIONING);

    PermissionTemplateDto anotherTemplate = permissionTemplateDbTester.insertTemplate(organization);
    permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), null, USER);
    permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), group1.getId(), PROVISIONING);

    assertThat(selectGroupNamesByQueryAndTemplate(builder(), organization, template))
        .containsOnly("Group-1", "Group-2", "Group-3", "Anyone");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().withAtLeastOnePermission(), organization,
template))
        .containsOnly("Group-1", "Group-2");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setPermission(USER), organization, template))
        .containsOnly("Group-1");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setPermission(USER), organization,
anotherTemplate))
        .containsOnly("Anyone");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setSearchQuery("groU"), organization, template))
        .containsOnly("Group-1", "Group-2", "Group-3");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setSearchQuery("nYo"), organization, template))
        .containsOnly("Anyone");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setSearchQuery("p-2"), organization, template))
        .containsOnly("Group-2");

    assertThat(selectGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).withAt
LeastOnePermission().build(), organization, 123L))
        .isEmpty();
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setSearchQuery("unknown"), organization,
template))
        .isEmpty();
}

```

```

@Test
public void select_group_names_by_query_and_template_is_ordered_by_group_names() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group2 = db.users().insertGroup(organization, "Group-2");
    db.users().insertGroup(organization, "Group-3");
    db.users().insertGroup(organization, "Group-1");

    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate(organization);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group2.getId(), USER);

    assertThat(selectGroupNamesByQueryAndTemplate(builder(), organization, template))
        .containsExactly("Anyone", "Group-1", "Group-2", "Group-3");
}

@Test
public void select_group_names_by_query_and_template_is_paginated() {
    OrganizationDto organization = db.organizations().insert();
    IntStream.rangeClosed(0, 9).forEach(i -> db.users().insertGroup(organization, i + "-name"));

    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate(organization);

    assertThat(selectGroupNamesByQueryAndTemplate(builder().setPageIndex(1).setPageSize(1), organization,
template))
        .containsExactly("0-name");
    assertThat(selectGroupNamesByQueryAndTemplate(builder().setPageIndex(2).setPageSize(3), organization,
template))
        .containsExactly("3-name", "4-name", "5-name");
}

@Test
public void select_group_names_by_query_and_template_returns_anyone() {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate(organization);

    GroupDto group = db.users().insertGroup(new GroupDto().setName("Group"));
    PermissionTemplateDto otherTemplate = permissionTemplateDbTester.insertTemplate(organization);
    permissionTemplateDbTester.addGroupToTemplate(otherTemplate.getId(), group.getId(), USER);

    assertThat(selectGroupNamesByQueryAndTemplate(builder().setSearchQuery("nyo"), organization, template))
        .containsExactly("Anyone");
}

@Test
public void count_group_names_by_query_and_template() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(organization, "Group-1");
    GroupDto group2 = db.users().insertGroup(organization, "Group-2");

```

```

GroupDto group3 = db.users().insertGroup(organization, "Group-3");

PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate(organization);
permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), USER);
permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), ADMIN);
permissionTemplateDbTester.addGroupToTemplate(template.getId(), group2.getId(), PROVISIONING);

PermissionTemplateDto anotherTemplate = permissionTemplateDbTester.insertTemplate(organization);
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), null, USER);
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), group1.getId(), PROVISIONING);

    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()),
organization, template))
        .isEqualTo(4);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).withAt
LeastOnePermission(), organization, template))
        .isEqualTo(2);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setPer
mission(USER), organization, template)).isEqualTo(1);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setPer
mission(USER), organization, anotherTemplate))
        .isEqualTo(1);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setSear
chQuery("groU"), organization, template))
        .isEqualTo(3);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setSear
chQuery("nYo"), organization, template))
        .isEqualTo(1);
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setSear
chQuery("p-2"), organization, template))
        .isEqualTo(1);

    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).withAt
LeastOnePermission().build(), organization, 123L))
        .isZero();
    assertThat(countGroupNamesByQueryAndTemplate(builder().setOrganizationUuid(organization.getUuid()).setSear
chQuery("unknown"), organization, template))
        .isZero();
}

@Test
public void select_group_permissions_by_template_id_and_group_names() {
    GroupDto group1 = db.users().insertGroup(new GroupDto().setName("Group-1"));
    GroupDto group2 = db.users().insertGroup(new GroupDto().setName("Group-2"));
    GroupDto group3 = db.users().insertGroup(new GroupDto().setName("Group-3"));

    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate();
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), USER);

```



```

permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), ADMIN);
permissionTemplateDbTester.addGroupToTemplate(template.getId(), group2.getId(), PROVISIONING);

PermissionTemplateDto anotherTemplate = permissionTemplateDbTester.insertTemplate();
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), null, USER);
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), group1.getId(), PROVISIONING);

assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, template.getId(),
asList("Group-1")))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getGroupName,
PermissionTemplateGroupDto::getPermission)
    .containsOnly(
        tuple(group1.getId(), "Group-1", USER),
        tuple(group1.getId(), "Group-1", ADMIN));

assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, anotherTemplate.getId(),
asList("Group-1")))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getGroupName,
PermissionTemplateGroupDto::getPermission)
    .containsOnly(
        tuple(group1.getId(), "Group-1", PROVISIONING));

assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, anotherTemplate.getId(),
asList("Anyone")))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getGroupName,
PermissionTemplateGroupDto::getPermission)
    .containsOnly(
        tuple(0, "Anyone", USER));

assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, template.getId(),
asList("Group-1", "Group-2", "Anyone")))
    .hasSize(3);
assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, template.getId(),
asList("Unknown")))
    .isEmpty();
assertThat(underTest.selectGroupPermissionsByTemplateIdAndGroupNames(session, template.getId(),
Collections.emptyList()))
    .isEmpty();
}

@Test
public void select_group_permissions_by_template_id() {
    GroupDto group1 = db.users().insertGroup(new GroupDto().setName("Group-1"));
    GroupDto group2 = db.users().insertGroup(new GroupDto().setName("Group-2"));
    GroupDto group3 = db.users().insertGroup(new GroupDto().setName("Group-3"));

    PermissionTemplateDto template = permissionTemplateDbTester.insertTemplate();
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), USER);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group1.getId(), ADMIN);
    permissionTemplateDbTester.addGroupToTemplate(template.getId(), group2.getId(), PROVISIONING);
}

```

```

PermissionTemplateDto anotherTemplate = permissionTemplateDbTester.insertTemplate();
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), null, USER);
permissionTemplateDbTester.addGroupToTemplate(anotherTemplate.getId(), group1.getId(), PROVISIONING);

assertThat(underTest.selectGroupPermissionsByTemplateId(session, template.getId()))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getGroupName,
PermissionTemplateGroupDto::getPermission)
    .containsOnly(
        tuple(group1.getId(), "Group-1", USER),
        tuple(group1.getId(), "Group-1", ADMIN),
        tuple(group2.getId(), "Group-2", PROVISIONING));
assertThat(underTest.selectGroupPermissionsByTemplateId(session, anotherTemplate.getId()))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getGroupName,
PermissionTemplateGroupDto::getPermission)
    .containsOnly(
        tuple(group1.getId(), "Group-1", PROVISIONING),
        tuple(0, "Anyone", USER));

assertThat(underTest.selectGroupPermissionsByTemplateId(session, 321L)).isEmpty();
}

private List<String> selectGroupNamesByQueryAndTemplate(PermissionQuery.Builder queryBuilder,
OrganizationDto organization, PermissionTemplateDto permissionTemplateDto) {
    return
selectGroupNamesByQueryAndTemplate(queryBuilder.setOrganizationUuid(organization.getUuid()).build(),
organization, permissionTemplateDto.getId());
}

private List<String> selectGroupNamesByQueryAndTemplate(PermissionQuery query, OrganizationDto
organization, long templateId) {
    return underTest.selectGroupNamesByQueryAndTemplate(session, query, templateId);
}

private int countGroupNamesByQueryAndTemplate(PermissionQuery.Builder queryBuilder, OrganizationDto
organization, PermissionTemplateDto permissionTemplateDto) {
    return countGroupNamesByQueryAndTemplate(queryBuilder.build(), organization,
permissionTemplateDto.getId());
}

private int countGroupNamesByQueryAndTemplate(PermissionQuery query, OrganizationDto organization, long
templateId) {
    return underTest.countGroupNamesByQueryAndTemplate(session, query, organization.getUuid(), templateId);
}

}
{
"permissionTemplate": {
    "id": "af8cb8cc-1e78-4c4e-8c00-ee8e814009a5",

```

```

    "name": "Finance",
    "description": "Permissions for financially related projects",
    "projectKeyPattern": ".*\\.finance\\..*",
    "createdAt": "2001-09-09T03:46:40+0200",
    "updatedAt": "2015-08-25T16:18:48+0200"
  }
}
// Jest Snapshot v1, https://goo.gl/fbAQLP

```

```

exports[`should render one qualifier 1`] = `
<div>
  <span
    className="badge spacer-right"
  >
    permission_template.default_for.qualifiers.DEV
  </span>
</div>
`;

```

```

exports[`should render only projects for custom organization 1`] = `
<div>
  <span
    className="badge spacer-right"
  >
    permission_template.default_for.qualifiers.TRK
  </span>
</div>
`;

```

```

exports[`should render several qualifiers 1`] = `
<div>
  <span
    className="badge spacer-right"
  >
    permission_template.default_for.qualifiers.TRK, qualifiers.VW
  </span>
</div>
`;

```

```

exports[`should render several qualifiers for default organization 1`] = `
<div>
  <span
    className="badge spacer-right"
  >
    permission_template.default_for.qualifiers.TRK, qualifiers.VW
  </span>
</div>
`;

```

Copyright (c) 2000,2001,2002,2003,2004 ymnk, JCraft,Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.server.permission.ws.template;

import org.sonar.api.resources.Qualifiers;

import org.sonar.api.resources.ResourceType;

```

import org.sonar.api.resources.ResourceTypes;
import org.sonar.db.organization.DefaultTemplates;

import static java.util.Optional.ofNullable;

public class DefaultTemplatesResolverImpl implements DefaultTemplatesResolver {
    private final ResourceTypes resourceTypes;

    public DefaultTemplatesResolverImpl(ResourceTypes resourceTypes) {
        this.resourceTypes = resourceTypes;
    }

    @Override
    public ResolvedDefaultTemplates resolve(DefaultTemplates defaultTemplates) {
        String projectDefaultTemplate = defaultTemplates.getProjectUuid();

        return new ResolvedDefaultTemplates(
            projectDefaultTemplate,
            isViewsEnabled(resourceTypes) ? ofNullable(defaultTemplates.getViewUuid()).orElse(projectDefaultTemplate)
            : null);
    }

    private static boolean isViewsEnabled(ResourceTypes resourceTypes) {
        return resourceTypes.getRoots()
            .stream()
            .map(ResourceType::getQualifier)
            .anyMatch(Qualifiers.VIEW::equals);
    }
}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

```

*/
package org.sonar.server.permission.indexer;

import java.util.Arrays;
import java.util.stream.Stream;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.es.EsTester;

import static java.util.Arrays.asList;

public class PermissionIndexerTester {

    private final PermissionIndexer permissionIndexer;

    public PermissionIndexerTester(EsTester esTester, NeedAuthorizationIndexer indexer,
    NeedAuthorizationIndexer... others) {
        NeedAuthorizationIndexer[] indexers = Stream.concat(Stream.of(indexer),
    Arrays.stream(others)).toArray(NeedAuthorizationIndexer[]::new);
        this.permissionIndexer = new PermissionIndexer(null, esTester.client(), indexers);
    }

    public PermissionIndexerTester allowOnlyAnyone(ComponentDto project) {
        PermissionIndexerDao.Dto dto = new PermissionIndexerDao.Dto(project.uuid(), project.qualifier());
        dto.allowAnyone();
        permissionIndexer.index(asList(dto));
        return this;
    }

    public PermissionIndexerTester allowOnlyUser(ComponentDto project, UserDto user) {
        PermissionIndexerDao.Dto dto = new PermissionIndexerDao.Dto(project.uuid(), project.qualifier())
        .addUserId(user.getId());
        permissionIndexer.index(asList(dto));
        return this;
    }

    public PermissionIndexerTester allowOnlyGroup(ComponentDto project, GroupDto group) {
        PermissionIndexerDao.Dto dto = new PermissionIndexerDao.Dto(project.uuid(), project.qualifier())
        .addGroupId(group.getId());
        permissionIndexer.index(asList(dto));
        return this;
    }

    public PermissionIndexerTester allow(PermissionIndexerDao.Dto access) {
        permissionIndexer.index(asList(access));
        return this;
    }
}

```

```

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;

import static org.assertj.core.api.Assertions.assertThat;

public class PermissionQueryTest {

    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    @Test
    public void create_query() {
        PermissionQuery query = PermissionQuery.builder()
            .setComponentUuid("COMPONENT_UUID")
            .setOrganizationUuid("ORGANIZATION_UUID")
            .setPermission("user")
            .setSearchQuery("sonar")
            .build();

        assertThat(query.getComponentUuid()).isEqualTo("COMPONENT_UUID");
        assertThat(query.getOrganizationUuid()).isEqualTo("ORGANIZATION_UUID");
        assertThat(query.getPermission()).isEqualTo("user");
        assertThat(query.getSearchQuery()).isEqualTo("sonar");
    }
}

```

```

@Test
public void create_query_with_pagination() {
    PermissionQuery quey = PermissionQuery.builder()
        .setOrganizationUuid("ORGANIZATION_UUID")
        .setPageSize(10)
        .setPageIndex(5)
        .build();

    assertThat(quey.getPageOffset()).isEqualTo(40);
    assertThat(quey.getPageSize()).isEqualTo(10);
}

@Test
public void create_query_with_default_pagination() {
    PermissionQuery quey = PermissionQuery.builder()
        .setOrganizationUuid("ORGANIZATION_UUID")
        .build();

    assertThat(quey.getPageOffset()).isEqualTo(0);
    assertThat(quey.getPageSize()).isEqualTo(20);
}

@Test
public void fail_when_no_organization() {
    expectedException.expect(NullPointerException.class);
    expectedException.expectMessage("Organization UUID cannot be null");

    PermissionQuery.builder().setOrganizationUuid(null).build();
}

@Test
public void fail_when_search_query_length_is_less_than_3_characters() {
    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("Search query should contains at least 3 characters");

    PermissionQuery.builder()
        .setOrganizationUuid("ORGANIZATION_UUID")
        .setSearchQuery("so")
        .build();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public

```


* License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.db.permission;
```

```
import java.util.HashMap;
import java.util.List;
import java.util.Map;
import java.util.Set;
import javax.annotation.Nullable;
import org.apache.ibatis.session.ResultHandler;
import org.apache.ibatis.session.RowBounds;
import org.sonar.api.security.DefaultGroups;
import org.sonar.db.Dao;
import org.sonar.db.DbSession;
import org.sonar.db.component.ComponentMapper;
import org.sonar.db.user.GroupMapper;
```

```
import static com.google.common.base.Preconditions.checkNotNull;
import static org.sonar.db.DatabaseUtils.executeLargeInputs;
import static org.sonar.db.DatabaseUtils.executeLargeInputsWithoutOutput;
```

```
public class GroupPermissionDao implements Dao {
```

```
    private static final String ANYONE_GROUP_PARAMETER = "anyoneGroup";
```

```
    /**
```

```
     * Returns the names of the groups that match the given query, for the given organization.
     * The virtual group "Anyone" may be returned as the value {@link DefaultGroups#ANYONE}.
     * @return group names, sorted in alphabetical order
    */
```

```
    public List<String> selectGroupNamesByQuery(DbSession dbSession, PermissionQuery query) {
        return mapper(dbSession).selectGroupNamesByQuery(query, new RowBounds(query.getPageOffset(),
            query.getPageSize()));
    }
```

```
    /**
```

```
     * Count the number of groups returned by {@link #selectGroupNamesByQuery(DbSession, PermissionQuery)},
     * without applying pagination.
    */
```

```

*/
public int countGroupsByQuery(DbSession dbSession, PermissionQuery query) {
    return mapper(dbSession).countGroupsByQuery(query);
}

/**
 * Select global or project permission of given groups and organization. Anyone virtual group is supported
 * through the value "zero" (0L) in { @code groupIds}.
 */
public List<GroupPermissionDto> selectByGroupIds(DbSession dbSession, String organizationUuid, List<Integer>
groupIds, @Nullable Long projectId) {
    return executeLargeInputs(groupIds, groups -> mapper(dbSession).selectByGroupIds(organizationUuid, groups,
projectId));
}

/**
 * Select global and project permissions of a given group (Anyone group is NOT supported)
 * Each row returns a { @link GroupPermissionDto}
 */
public void selectAllPermissionsByGroupId(DbSession dbSession, String organizationUuid, Integer groupId,
ResultHandler resultHandler) {
    mapper(dbSession).selectAllPermissionsByGroupId(organizationUuid, groupId, resultHandler);
}

/**
 * Each row returns a { @link CountPerProjectPermission}
 */
public void groupsCountByComponentIdAndPermission(DbSession dbSession, List<Long> componentIds,
ResultHandler resultHandler) {
    Map<String, Object> parameters = new HashMap<>(2);
    parameters.put(ANYONE_GROUP_PARAMETER, DefaultGroups.ANYONE);

    executeLargeInputsWithoutOutput(
        componentIds,
        partitionedComponentIds -> {
            parameters.put("componentIds", partitionedComponentIds);
            mapper(dbSession).groupsCountByProjectIdAndPermission(parameters, resultHandler);
        });
}

/**
 * Selects the global permissions granted to group. An empty list is returned if the
 * group does not exist.
 */
public List<String> selectGlobalPermissionsOfGroup(DbSession session, String organizationUuid, @Nullable
Integer groupId) {
    return mapper(session).selectGlobalPermissionsOfGroup(organizationUuid, groupId);
}

```

```

/**
 * Selects the permissions granted to group and project. An empty list is returned if the
 * group or project do not exist.
 */
public List<String> selectProjectPermissionsOfGroup(DbSession session, String organizationUuid, @Nullable
Integer groupId, long projectId) {
    return mapper(session).selectProjectPermissionsOfGroup(organizationUuid, groupId, projectId);
}

/**
 * Lists id of groups with at least one permission on the specified root component but which do not have the
 * specified
 * permission, <strong>excluding group "AnyOne" </strong> (which implies the returned { @code Set } can't
 * contain
 * { @code null }).
 */
public Set<Integer> selectGroupIdsWithPermissionOnProjectBut(DbSession session, long projectId, String
permission) {
    return mapper(session).selectGroupIdsWithPermissionOnProjectBut(projectId, permission);
}

public void insert(DbSession dbSession, GroupPermissionDto dto) {
    ensureComponentPermissionConsistency(dbSession, dto);
    ensureGroupPermissionConsistency(dbSession, dto);
    mapper(dbSession).insert(dto);
}

private static void ensureComponentPermissionConsistency(DbSession dbSession, GroupPermissionDto dto) {
    if (dto.getResourceId() == null) {
        return;
    }
    ComponentMapper componentMapper = dbSession.getMapper(ComponentMapper.class);
    checkArgument(
        componentMapper.countComponentByOrganizationAndId(dto.getOrganizationUuid(), dto.getResourceId()) ==
1,
        "Can't insert permission '%s' for component with id '%s' in organization with uuid '%s' because this component
does not belong to organization with uuid '%s'",
        dto.getRole(), dto.getResourceId(), dto.getOrganizationUuid(), dto.getOrganizationUuid());
}

private static void ensureGroupPermissionConsistency(DbSession dbSession, GroupPermissionDto dto) {
    if (dto.getGroupId() == null) {
        return;
    }
    GroupMapper groupMapper = dbSession.getMapper(GroupMapper.class);
    checkArgument(
        groupMapper.countGroupByOrganizationAndId(dto.getOrganizationUuid(), dto.getGroupId()) == 1,

```

```

    "Can't insert permission '%s' for group with id '%s' in organization with uuid '%s' because this group does not
    belong to organization with uuid '%s'",
    dto.getRole(), dto.getGroupId(), dto.getOrganizationUuid(), dto.getOrganizationUuid());
}

/**
 * Delete all the permissions associated to a root component (project)
 */
public void deleteByRootComponentId(DbSession dbSession, long rootComponentId) {
    mapper(dbSession).deleteByRootComponentId(rootComponentId);
}

/**
 * Delete all permissions of the specified group (group "AnyOne" if {@code groupId} is {@code null}) for the
    specified
 * component.
 */
public int deleteByRootComponentIdAndGroupId(DbSession dbSession, long rootComponentId, @Nullable
Integer groupId) {
    return mapper(dbSession).deleteByRootComponentIdAndGroupId(rootComponentId, groupId);
}

/**
 * Delete the specified permission for the specified component for any group (including group AnyOne).
 */
public int deleteByRootComponentIdAndPermission(DbSession dbSession, long rootComponentId, String
permission) {
    return mapper(dbSession).deleteByRootComponentIdAndPermission(rootComponentId, permission);
}

/**
 * Delete a single permission. It can be:
 * <ul>
 * <li>a global permission granted to a group</li>
 * <li>a global permission granted to anyone</li>
 * <li>a permission granted to a group for a project</li>
 * <li>a permission granted to anyone for a project</li>
 * </ul>
 * @param dbSession
 * @param permission the kind of permission
 * @param organizationUuid UUID of organization, even if parameter {@code groupId} is not null
 * @param groupId if null, then anyone, else id of group
 * @param rootComponentId if null, then global permission, else id of root component (project)
 */
public void delete(DbSession dbSession, String permission, String organizationUuid, @Nullable Integer groupId,
@Nullable Long rootComponentId) {
    mapper(dbSession).delete(permission, organizationUuid, groupId, rootComponentId);
}

```

```

public void deleteByOrganization(DbSession dbSession, String organizationUuid) {
    mapper(dbSession).deleteByOrganization(organizationUuid);
}

private static GroupPermissionMapper mapper(DbSession session) {
    return session.getMapper(GroupPermissionMapper.class);
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Test;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.component.ResourceTypesRule;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.i18n.I18nRule;
import org.sonarqube.ws.Permissions;

import static java.lang.String.format;

```

```

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.component.ComponentTesting.newProjectCopy;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;

public class SearchProjectPermissionsActionTest extends
BasePermissionWsTest<SearchProjectPermissionsAction> {

    private ComponentDbTester componentDb = new ComponentDbTester(db);
    private I18nRule i18n = new I18nRule();

    @Before
    public void setUp() {
        i18n.setProjectPermissions();
        userSession.logIn().setSystemAdministrator();
    }

    @Override
    protected SearchProjectPermissionsAction buildWsAction() {
        i18n.setProjectPermissions();
        ResourceTypesRule rootResourceTypes = newRootResourceTypes();
        PermissionWsSupport wsSupport = newPermissionWsSupport();
        return new SearchProjectPermissionsAction(db.getDbClient(), userSession, i18n, rootResourceTypes, wsSupport);
    }

    @Test
    public void
search_project_permissions_counts_0_users_and_0_groups_on_public_project_without_any_specified_permission_
in_DB() {
        ComponentDto project = db.components().insertPublicProject();

        String result = newRequest().execute().getInput();

        assertJson(result)
            .ignoreFields("permissions")
            .isSimilarTo("{ " +
                " \"paging\": { " +
                " \"pageIndex\": 1, " +
                " \"pageSize\": 25, " +
                " \"total\": 1 " +

```

```

    " }," +
    " \"projects\": [" +
    " {" +
    "   \"id\": \"\" + project.uuid() + "\",\" +
    "   \"key\": \"\" + project.getDbKey() + "\",\" +
    "   \"name\": \"\" + project.name() + "\",\" +
    "   \"qualifier\": \"TRK\",\" +
    "   \"permissions\": []" +
    " }" +
    "]" +
    "});
}

```

```

@Test
public void
search_project_permissions_counts_0_users_and_0_groups_on_private_project_without_any_specified_permission
_in_DB() {
    ComponentDto project = db.components().insertPrivateProject();

    String result = newRequest().execute().getInput();

    assertJson(result)
        .ignoreFields("permissions")
        .isSimilarTo("{ " +
            " \"paging\": { " +
            "   \"pageIndex\": 1,\" +
            "   \"pageSize\": 25,\" +
            "   \"total\": 1" +
            " }," +
            " \"projects\": [" +
            " {" +
            "   \"id\": \"\" + project.uuid() + "\",\" +
            "   \"key\": \"\" + project.getDbKey() + "\",\" +
            "   \"name\": \"\" + project.name() + "\",\" +
            "   \"qualifier\": \"TRK\",\" +
            "   \"permissions\": []" +
            " }" +
            "]" +
            "});
}

```

```

@Test
public void search_project_permissions() {
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();

    ComponentDto jdk7 = insertJdk7();
}

```

```

ComponentDto project2 = insertClang();
ComponentDto view = insertView();
insertProjectInView(jdk7, view);

db.users().insertProjectPermissionOnUser(user1, UserRole.ISSUE_ADMIN, jdk7);
db.users().insertProjectPermissionOnUser(user1, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnUser(user2, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnUser(user3, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnUser(user1, UserRole.ISSUE_ADMIN, project2);
db.users().insertProjectPermissionOnUser(user1, UserRole.ISSUE_ADMIN, view);
// global permission
db.users().insertPermissionOnUser(user1, ADMINISTER);

GroupDto group1 = db.users().insertGroup();
GroupDto group2 = db.users().insertGroup();
GroupDto group3 = db.users().insertGroup();

db.users().insertProjectPermissionOnAnyone(UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnGroup(group1, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnGroup(group2, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnGroup(group3, UserRole.ADMIN, jdk7);
db.users().insertProjectPermissionOnGroup(group2, UserRole.ADMIN, view);

db.commit();

String result = newRequest().execute().getInput();

assertJson(result)
    .ignoreFields("permissions")
    .isSimilarTo(getClass().getResource("search_project_permissions-example.json"));
}

@Test
public void empty_result() {
    String result = newRequest().execute().getInput();

    assertJson(result)
        .ignoreFields("permissions")
        .isSimilarTo(getClass().getResource("SearchProjectPermissionsActionTest/empty.json"));
}

@Test
public void search_project_permissions_with_project_permission() {
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.getDefaultOrganization(),
"project-uuid"));
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    String result = newRequest()

```



```

        .setParam(PARAM_PROJECT_ID, "project-uuid")
        .execute().getInput();

    assertThat(result).contains("project-uuid");
}

@Test
public void has_projects_ordered_by_name() {
    OrganizationDto organizationDto = db.organizations().insert();
    for (int i = 9; i >= 1; i--) {
        db.components().insertComponent(ComponentTesting.newPrivateProjectDto(organizationDto)
            .setName("project-name-" + i));
    }

    String result = newRequest()
        .setParam(PAGE, "1")
        .setParam(PAGE_SIZE, "3")
        .execute().getInput();

    assertThat(result)
        .contains("project-name-1", "project-name-2", "project-name-3")
        .doesNotContain("project-name-4");
}

@Test
public void search_by_query_on_name() {
    componentDb.insertProjectAndSnapshot(ComponentTesting.newPrivateProjectDto(db.getDefaultOrganization()).setName("project-name"));
    componentDb.insertProjectAndSnapshot(ComponentTesting.newPrivateProjectDto(db.getDefaultOrganization()).setName("another-name"));

    String result = newRequest()
        .setParam(TEXT_QUERY, "project")
        .execute().getInput();

    assertThat(result).contains("project-name")
        .doesNotContain("another-name");
}

@Test
public void search_by_query_on_key_must_match_exactly() {
    OrganizationDto organizationDto = db.organizations().insert();
    componentDb.insertProjectAndSnapshot(ComponentTesting.newPrivateProjectDto(organizationDto).setDbKey("project-key"));
    componentDb.insertProjectAndSnapshot(ComponentTesting.newPrivateProjectDto(organizationDto).setDbKey("another-key"));

    String result = newRequest()

```

```

        .setParam(TEXT_QUERY, "project-key")
        .execute()
        .getInput();

    assertThat(result).contains("project-key")
        .doesNotContain("another-key");
}

@Test
public void handle_more_than_1000_projects() {
    for (int i = 1; i <= 1001; i++) {
        componentDb.insertProjectAndSnapshot(newPrivateProjectDto(db.getDefaultOrganization(), "project-uuid-" +
i));
    }

    String result = newRequest()
        .setParam(TEXT_QUERY, "project")
        .setParam(PAGE_SIZE, "1001")
        .execute()
        .getInput();

    assertThat(result).contains("project-uuid-1", "project-uuid-999", "project-uuid-1001");
}

@Test
public void filter_by_qualifier() {
    OrganizationDto organizationDto = db.organizations().insert();
    db.components().insertComponent(newView(organizationDto, "view-uuid"));
    db.components().insertComponent(newPrivateProjectDto(organizationDto, "project-uuid"));

    Permissions.SearchProjectPermissionsWsResponse result = newRequest()
        .setParam(PARAM_QUALIFIER, Qualifiers.PROJECT)
        .executeProtobuf(Permissions.SearchProjectPermissionsWsResponse.class);

    assertThat(result.getProjectsList())
        .extracting("id")
        .contains("project-uuid")
        .doesNotContain("view-uuid");
}

@Test
public void fail_if_not_logged_in() {
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest().execute();
}

```

```

@Test
public void fail_if_not_admin() {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest().execute();
}

@Test
public void display_all_project_permissions() {
    String result = newRequest().execute().getInput();

    assertJson(result)
        .ignoreFields("permissions")
        .isSimilarTo(getClass().getResource("SearchProjectPermissionsActionTest/display_all_project_permissions.json"));
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    ComponentDto project = db.components().insertMainBranch();
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .execute();
}

private ComponentDto insertView() {
    return db.components().insertComponent(new View(db.getDefaultOrganization())
        .setUuid("752d8bfd-420c-4a83-a4e5-8ab19b13c8fc")
        .setName("Java")
        .setDbKey("Java"));
}

private ComponentDto insertProjectInView(ComponentDto project, ComponentDto view) {
    return db.components().insertComponent(new ProjectCopy("project-in-view-uuid", project, view));
}

private ComponentDto insertClang() {
    return db.components().insertComponent(new PrivateProjectDto(db.getDefaultOrganization(), "project-uuid-2")
        .setName("Clang")
        .setDbKey("clang"));
}

```

```

        .setUuid("ce4c03d6-430f-40a9-b777-ad877c00aa4d"));
    }

    private ComponentDto insertJdk7() {
        return db.components().insertComponent(ComponentTesting.newPublicProjectDto(db.getDefaultOrganization())
            .setName("JDK 7")
            .setDbKey("net.java.openjdk:jdk7")
            .setUuid("0bd7b1e7-91d6-439e-a607-4a3a9aad3c6a"));
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.ServerException;

import static java.lang.String.format;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;

```

```

import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.core.permission.GlobalPermissions.QUALITY_GATE_ADMIN;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.component.ComponentTesting.newDirectory;
import static org.sonar.db.component.ComponentTesting.newFileDto;
import static org.sonar.db.component.ComponentTesting.newModuleDto;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.component.ComponentTesting.newSubView;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

```

```

public class RemoveUserActionTest extends BasePermissionWsTest<RemoveUserAction> {

```

```

    private static final String A_PROJECT_UUID = "project-uuid";
    private static final String A_PROJECT_KEY = "project-key";
    private static final String A_LOGIN = "ray.bradbury";

```

```

    private UserDto user;

```

```

    @Before

```

```

    public void setUp() {
        user = db.users().insertUser(A_LOGIN);
    }

```

```

    @Override

```

```

    protected RemoveUserAction buildWsAction() {
        return new RemoveUserAction(db.getDbClient(), userSession, newPermissionUpdater(),
            newPermissionWsSupport());
    }

```

```

    @Test

```

```

    public void remove_permission_from_user() {
        db.users().insertPermissionOnUser(user, PROVISION_PROJECTS);
        db.users().insertPermissionOnUser(user, ADMINISTER_QUALITY_GATES);
        loginAsAdmin(db.getDefaultOrganization());

```

```

        newRequest()

```

```

            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PERMISSION, QUALITY_GATE_ADMIN)
            .execute();

```

```

    assertThat(db.users().selectPermissionsOfUser(user,
db.getDefaultOrganization()).containsOnly(PROVISION_PROJECTS);
}

@Test
public void fail_to_remove_admin_permission_if_last_admin() {
    db.users().insertPermissionOnUser(user, ADMINISTER);
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Last user with permission 'admin'. Permission cannot be removed.");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, ADMIN)
        .execute();
}

@Test
public void remove_permission_from_project() {
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.organizations().insert(),
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    db.users().insertProjectPermissionOnUser(user, CODEVIEWER, project);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();

    assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(ISSUE_ADMIN);
}

@Test
public void remove_with_project_key() {
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.organizations().insert(),
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);
    db.users().insertProjectPermissionOnUser(user, CODEVIEWER, project);
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)

```

```

        .execute();

        assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(CODEVIEWER);
    }

    @Test
    public void remove_with_view_uuid() {
        ComponentDto view = db.components().insertComponent(new View(db.organizations().insert(), "view-
        uuid").setDbKey("view-key"));
        db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, view);
        db.users().insertProjectPermissionOnUser(user, ADMIN, view);
        loginAsAdmin(db.getDefaultOrganization());

        newRequest()
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PROJECT_KEY, view.getDbKey())
            .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
            .execute();

        assertThat(db.users().selectProjectPermissionsOfUser(user, view)).containsOnly(ADMIN);
    }

    @Test
    public void fail_when_project_does_not_exist() {
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(NotFoundException.class);

        newRequest()
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PROJECT_ID, "unknown-project-uuid")
            .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
            .execute();
    }

    @Test
    public void fail_when_project_permission_without_permission() {
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(BadRequestException.class);

        newRequest()
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
            .execute();
    }

    @Test

```

```

public void fail_when_component_is_a_module() {
    ComponentDto module =
db.components().insertComponent(newModuleDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));

    failIfComponentIsNotAProjectOrView(module);
}

@Test
public void fail_when_component_is_a_directory() {
    ComponentDto file =
db.components().insertComponent(newDirectory(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), "A/B"));

    failIfComponentIsNotAProjectOrView(file);
}

@Test
public void fail_when_component_is_a_file() {
    ComponentDto file =
db.components().insertComponent(newFileDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), null, "file-uuid"));

    failIfComponentIsNotAProjectOrView(file);
}

@Test
public void fail_when_component_is_a_subview() {
    ComponentDto file =
db.components().insertComponent(newSubView(ComponentTesting.newView(db.organizations().insert()));

    failIfComponentIsNotAProjectOrView(file);
}

private void failIfComponentIsNotAProjectOrView(ComponentDto file) {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Component " + file.getDbKey() + " (id: " + file.uuid() + ") must be a project or a view.");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, file.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

```



```

@Test
public void fail_when_get_request() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(ServerException.class);

    newRequest()
        .setMethod("GET")
        .setParam(PARAM_USER_LOGIN, "george.orwell")
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

```

```

@Test
public void fail_when_user_login_is_missing() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

```

```

@Test
public void fail_when_permission_is_missing() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .execute();
}

```

```

@Test
public void fail_when_project_uuid_and_project_key_are_provided() {
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.organizations().insert(),
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Project id or project key can be provided, not both.");

    newRequest()
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())

```

```

        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
    }

@Test
public void removing_global_permission_fails_if_not_administrator_of_organization() {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .execute();
}

@Test
public void removing_project_permission_fails_if_not_administrator_of_project() {
    ComponentDto project = db.components().insertPrivateProject();
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
}

/**
 * User is project administrator but not system administrator
 */
@Test
public void removing_project_permission_is_allowed_to_project_administrators() {
    ComponentDto project = db.components().insertPrivateProject();
    db.users().insertProjectPermissionOnUser(user, CODEVIEWER, project);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();

    assertThat(db.users().selectProjectPermissionsOfUser(user, project)).containsOnly(CODEVIEWER);
}

```

```

@Test
public void fail_when_removing_USER_permission_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission user can't be removed from a public component");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, USER)
        .execute();
}

@Test
public void fail_when_removing_CODEVIEWER_permission_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)

```

```

        .execute();
    }

    @Test
    public void fail_when_using_branch_uuid() {
        OrganizationDto organization = db.organizations().insert();
        ComponentDto project = db.components().insertMainBranch(organization);
        userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
        ComponentDto branch = db.components().insertProjectBranch(project);

        expectedException.expect(NotFoundException.class);
        expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

        newRequest()
            .setParam(PARAM_ORGANIZATION, organization.getKey())
            .setParam(PARAM_PROJECT_ID, branch.uuid())
            .setParam(PARAM_USER_LOGIN, user.getLogin())
            .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
            .execute();
    }
}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission;

import java.util.List;
import java.util.Optional;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;

```

```

import org.sonar.db.permission.GroupPermissionDto;

import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.server.permission.PermissionChange.Operation.ADD;
import static org.sonar.server.permission.PermissionChange.Operation.REMOVE;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateNotAnyoneAndAdminPermission;
import static org.sonar.server.ws.WsUtils.checkRequest;

public class GroupPermissionChanger {

    private final DbClient dbClient;

    public GroupPermissionChanger(DbClient dbClient) {
        this.dbClient = dbClient;
    }

    public boolean apply(DbSession dbSession, GroupPermissionChange change) {
        ensureConsistencyWithVisibility(change);
        if (isImplicitlyAlreadyDone(change)) {
            return false;
        }
        switch (change.getOperation()) {
            case ADD:
                return addPermission(dbSession, change);
            case REMOVE:
                return removePermission(dbSession, change);
            default:
                throw new UnsupportedOperationException("Unsupported permission change: " + change.getOperation());
        }
    }

    private static boolean isImplicitlyAlreadyDone(GroupPermissionChange change) {
        return change.getProjectId()
            .map(projectId -> isImplicitlyAlreadyDone(projectId, change))
            .orElse(false);
    }

    private static boolean isImplicitlyAlreadyDone(ProjectId projectId, GroupPermissionChange change) {
        return isAttemptToAddPublicPermissionToPublicComponent(change, projectId)
            || isAttemptToRemovePermissionFromAnyoneOnPrivateComponent(change, projectId);
    }

    private static boolean isAttemptToAddPublicPermissionToPublicComponent(GroupPermissionChange change,
        ProjectId projectId) {
        return !projectId.isPrivate()
            && change.getOperation() == ADD
            && ProjectPermissions.PUBLIC_PERMISSIONS.contains(change.getPermission());
    }
}

```

```

private static boolean isAttemptToRemovePermissionFromAnyoneOnPrivateComponent(GroupPermissionChange
change, ProjectId projectId) {
    return projectId.isPrivate()
        && change.getOperation() == REMOVE
        && change.getGroupIdOrAnyone().isAnyone();
}

```

```

private static void ensureConsistencyWithVisibility(GroupPermissionChange change) {
    change.getProjectId()
        .ifPresent(projectId -> {
            checkRequest(
                isAttemptToAddPermissionToAnyoneOnPrivateComponent(change, projectId),
                "No permission can be granted to Anyone on a private component");
            checkRequest(
                isAttemptToRemovePublicPermissionFromPublicComponent(change, projectId),
                "Permission %s can't be removed from a public component", change.getPermission());
        });
}

```

```

private static boolean isAttemptToAddPermissionToAnyoneOnPrivateComponent(GroupPermissionChange
change, ProjectId projectId) {
    return projectId.isPrivate()
        && change.getOperation() == ADD
        && change.getGroupIdOrAnyone().isAnyone();
}

```

```

private static boolean isAttemptToRemovePublicPermissionFromPublicComponent(GroupPermissionChange
change, ProjectId projectId) {
    return !projectId.isPrivate()
        && change.getOperation() == REMOVE
        && ProjectPermissions.PUBLIC_PERMISSIONS.contains(change.getPermission());
}

```

```

private boolean addPermission(DbSession dbSession, GroupPermissionChange change) {
    if (loadExistingPermissions(dbSession, change).contains(change.getPermission())) {
        return false;
    }
}

```

```

validateNotAnyoneAndAdminPermission(change.getPermission(), change.getGroupIdOrAnyone());
GroupPermissionDto addedDto = new GroupPermissionDto()
    .setRole(change.getPermission())
    .setOrganizationUuid(change.getOrganizationUuid())
    .setGroupId(change.getGroupIdOrAnyone().getId())
    .setResourceId(change.getNullableProjectId());
dbClient.groupPermissionDao().insert(dbSession, addedDto);
return true;
}

```

```

private boolean removePermission(DbSession dbSession, GroupPermissionChange change) {
    if (!loadExistingPermissions(dbSession, change).contains(change.getPermission())) {
        return false;
    }
    checkIfRemainingGlobalAdministrators(dbSession, change);
    dbClient.groupPermissionDao().delete(dbSession,
        change.getPermission(),
        change.getOrganizationUuid(),
        change.getGroupIdOrAnyone().getId(),
        change.getNullableProjectId());
    return true;
}

private List<String> loadExistingPermissions(DbSession dbSession, GroupPermissionChange change) {
    Optional<ProjectId> projectId = change.getProjectId();
    if (projectId.isPresent()) {
        return dbClient.groupPermissionDao().selectProjectPermissionsOfGroup(dbSession,
            change.getOrganizationUuid(),
            change.getGroupIdOrAnyone().getId(),
            projectId.get().getId());
    }
    return dbClient.groupPermissionDao().selectGlobalPermissionsOfGroup(dbSession,
        change.getOrganizationUuid(),
        change.getGroupIdOrAnyone().getId());
}

private void checkIfRemainingGlobalAdministrators(DbSession dbSession, GroupPermissionChange change) {
    if (SYSTEM_ADMIN.equals(change.getPermission()) &&
        !change.getGroupIdOrAnyone().isAnyone() &&
        !change.getProjectId().isPresent()) {
        // removing global admin permission from group
        int remaining = dbClient.authorizationDao().countUsersWithGlobalPermissionExcludingGroup(dbSession,
            change.getOrganizationUuid(), SYSTEM_ADMIN, change.getGroupIdOrAnyone().getId());
        checkRequest(remaining > 0, "Last group with permission '%s'. Permission cannot be removed.",
SYSTEM_ADMIN);
    }
}

}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either

```

* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.db.permission;
```

```
import java.util.Collection;  
import java.util.Collections;  
import java.util.List;  
import java.util.Random;  
import java.util.Set;  
import java.util.stream.Collectors;  
import java.util.stream.IntStream;  
import org.junit.Before;  
import org.junit.Rule;  
import org.junit.Test;  
import org.sonar.api.utils.System2;  
import org.sonar.api.web.UserRole;  
import org.sonar.core.permission.ProjectPermissions;  
import org.sonar.core.util.stream.MoreCollectors;  
import org.sonar.db.DbSession;  
import org.sonar.db.DbTester;  
import org.sonar.db.component.BranchType;  
import org.sonar.db.component.ComponentDto;  
import org.sonar.db.organization.OrganizationDto;  
import org.sonar.db.user.GroupDto;  
import org.sonar.db.user.UserDto;  
  
import static com.google.common.collect.Sets.newHashSet;  
import static java.util.Collections.singleton;  
import static org.assertj.core.api.Assertions.assertThat;  
import static org.sonar.core.permission.GlobalPermissions.QUALITY_GATE_ADMIN;  
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;  
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;  
import static org.sonar.db.permission.OrganizationPermission.SCAN;  
  
public class AuthorizationDaoTest {
```



```

private static final Long PROJECT_ID = 300L;
private static final int MISSING_ID = -1;
private static final String A_PERMISSION = "a-permission";
private static final String DOES_NOT_EXIST = "does-not-exist";

@Rule
public DbTester db = DbTester.create(System2.INSTANCE);

private final Random random = new Random();
private DbSession dbSession = db.getSession();
private AuthorizationDao underTest = new AuthorizationDao();
private OrganizationDto organization;
private UserDto user;
private GroupDto group1;
private GroupDto group2;
private Set<Long> randomPublicProjectIds;
private Set<Long> randomPrivateProjectIds;
private Set<Integer> randomExistingUserIds;
private String randomPermission = "p" + random.nextInt();

@Before
public void setUp() throws Exception {
    organization = db.organizations().insert();
    user = db.users().insertUser();
    group1 = db.users().insertGroup(organization, "group1");
    group2 = db.users().insertGroup(organization, "group2");
    randomExistingUserIds = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))
        .map(i -> db.users().insertUser().getId())
        .boxed()
        .collect(MoreCollectors.toSet());
    randomPublicProjectIds = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))
        .mapToLong(i -> db.components().insertPublicProject(organization).getId())
        .boxed()
        .collect(MoreCollectors.toSet());
    randomPrivateProjectIds = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))
        .mapToLong(i -> db.components().insertPrivateProject(organization).getId())
        .boxed()
        .collect(MoreCollectors.toSet());
}

/**
 * Union of the permissions granted to:
 * - the user
 * - the groups which user is member
 * - anyone
 */
@Test
public void selectOrganizationPermissions_for_logged_in_user() {

```

```

ComponentDto project = db.components().insertPrivateProject(organization);
db.users().insertMember(group1, user);
db.users().insertPermissionOnUser(organization, user, "perm1");
db.users().insertProjectPermissionOnUser(user, "perm42", project);
db.users().insertPermissionOnGroup(group1, "perm2");
db.users().insertPermissionOnAnyone(organization, "perm3");

// ignored permissions, user is not member of this group
db.users().insertPermissionOnGroup(group2, "ignored");

Set<String> permissions = underTest.selectOrganizationPermissions(dbSession, organization.getUuid(),
user.getId());

assertThat(permissions).containsOnly("perm1", "perm2", "perm3");
}

/**
 * Anonymous user only benefits from the permissions granted to
 * "Anyone"
 */
@Test
public void selectOrganizationPermissions_for_anonymous_user() {
    db.users().insertPermissionOnAnyone(organization, "perm1");

    // ignored permissions
    db.users().insertPermissionOnUser(organization, user, "ignored");
    db.users().insertPermissionOnGroup(group1, "ignored");

    Set<String> permissions = underTest.selectOrganizationPermissionsOfAnonymous(dbSession,
organization.getUuid());

    assertThat(permissions).containsOnly("perm1");
}

@Test
public void countUsersWithGlobalPermissionExcludingGroup() {
    // users with global permission "perm1" :
    // - "u1" and "u2" through group "g1"
    // - "u1" and "u3" through group "g2"
    // - "u4"

    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();
    UserDto user4 = db.users().insertUser();
    UserDto user5 = db.users().insertUser();

    OrganizationDto organization = db.organizations().insert();

```

```

GroupDto group1 = db.users().insertGroup(organization, "g1");
db.users().insertPermissionOnGroup(group1, "perm1");
db.users().insertPermissionOnGroup(group1, "perm2");
db.users().insertMember(group1, user1);
db.users().insertMember(group1, user2);

GroupDto group2 = db.users().insertGroup(organization, "g2");
db.users().insertPermissionOnGroup(group2, "perm1");
db.users().insertPermissionOnGroup(group2, "perm2");
db.users().insertMember(group2, user1);
db.users().insertMember(group2, user3);

// group3 has the permission "perm1" but has no users
GroupDto group3 = db.users().insertGroup(organization, "g2");
db.users().insertPermissionOnGroup(group3, "perm1");

db.users().insertPermissionOnUser(organization, user4, "perm1");
db.users().insertPermissionOnUser(organization, user4, "perm2");
db.users().insertPermissionOnAnyone(organization, "perm1");

// other organizations are ignored
OrganizationDto org2 = db.organizations().insert();
db.users().insertPermissionOnUser(org2, user1, "perm1");

// excluding group "g1" -> remain u1, u3 and u4
assertThat(underTest.countUsersWithGlobalPermissionExcludingGroup(db.getSession(),
    organization.getUuid(), "perm1", group1.getId()).isEqualTo(3);

// excluding group "g2" -> remain u1, u2 and u4
assertThat(underTest.countUsersWithGlobalPermissionExcludingGroup(db.getSession(),
    organization.getUuid(), "perm1", group2.getId()).isEqualTo(3);

// excluding group "g3" -> remain u1, u2, u3 and u4
assertThat(underTest.countUsersWithGlobalPermissionExcludingGroup(db.getSession(),
    organization.getUuid(), "perm1", group3.getId()).isEqualTo(4);

// nobody has the permission
assertThat(underTest.countUsersWithGlobalPermissionExcludingGroup(db.getSession(),
    organization.getUuid(), "missingPermission", group1.getId()).isEqualTo(0);
}

@Test
public void countUsersWithGlobalPermissionExcludingUser() {
    // group g1 has the permission p1 and has members user1 and user2
    // user3 has the permission
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();

```

```

OrganizationDto organization = db.organizations().insert();
GroupDto group1 = db.users().insertGroup(organization, "g1");
db.users().insertPermissionOnGroup(group1, "p1");
db.users().insertPermissionOnGroup(group1, "p2");
db.users().insertMember(group1, user1);
db.users().insertMember(group1, user2);
db.users().insertPermissionOnUser(organization, user3, "p1");
db.users().insertPermissionOnAnyone(organization, "p1");

// other organizations are ignored
OrganizationDto org2 = db.organizations().insert();
db.users().insertPermissionOnUser(org2, user1, "p1");

// excluding user1 -> remain user2 and user3
assertThat(underTest.countUsersWithGlobalPermissionExcludingUser(db.getSession(),
    organization.getUuid(), "p1", user1.getId()).isEqualTo(2);

// excluding user3 -> remain the members of group g1
assertThat(underTest.countUsersWithGlobalPermissionExcludingUser(db.getSession(),
    organization.getUuid(), "p1", user3.getId()).isEqualTo(2);

// excluding unknown user
assertThat(underTest.countUsersWithGlobalPermissionExcludingUser(db.getSession(),
    organization.getUuid(), "p1", -1)).isEqualTo(3);

// nobody has the permission
assertThat(underTest.countUsersWithGlobalPermissionExcludingUser(db.getSession(),
    organization.getUuid(), "missingPermission", group1.getId()).isEqualTo(0);
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_group_AnyOne_if_project_set_is_empty_on_public_project() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, Collections.emptySet(), null, UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_returns_empty_for_user_if_project_set_is_empty_on_public_project() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, Collections.emptySet(), user.getId(),
UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_returns_empty_for_group_AnyOne_for_non_existent_projects() {
    Set<Long> randomNonProjectsSet = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))

```

```

        .mapToLong(i -> 3_562 + i)
        .boxed()
        .collect(MoreCollectors.toSet());

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomNonProjectsSet, null, UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_returns_empty_for_user_for_non_existent_projects() {
    Set<Long> randomNonProjectsSet = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))
        .mapToLong(i -> 9_666 + i)
        .boxed()
        .collect(MoreCollectors.toSet());

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomNonProjectsSet, user.getId(),
    UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_returns_any_public_project_for_group_AnyOne_without_any_permission_in_DB_and_
permission_USER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, null, UserRole.USER))
        .containsAll(randomPublicProjectIds);
}

@Test
public void keepAuthorizedProjectIds_returns_any_public_project_for_user_without_any_permission_in_DB_and_permission_
USER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, user.getId(),
    UserRole.USER))
        .containsAll(randomPublicProjectIds);
}

@Test
public void keepAuthorizedProjectIds_returns_any_public_project_for_group_AnyOne_without_any_permission_in_DB_and_
permission_CODEVIEWER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, null,
    UserRole.CODEVIEWER))
        .containsAll(randomPublicProjectIds);
}

@Test
public void

```

```

keepAuthorizedProjectIds_returns_any_public_project_for_user_without_any_permission_in_DB_and_permission_
CODEVIEWER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, user.getId(),
UserRole.CODEVIEWER))
        .containsAll(randomPublicProjectIds);
}

```

```

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_other_permission_for_group_AnyOne_on_public_project_without_a
ny_permission_in_DB() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, null, randomPermission))
        .isEmpty();
}

```

```

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_any_permission_for_user_on_public_project_without_any_permissio
n_in_DB() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPublicProjectIds, user.getId(),
randomPermission))
        .isEmpty();
}

```

```

@Test
public void keepAuthorizedProjectIds_returns_public_project_if_user_is_granted_project_permission_directly() {
    ComponentDto project = db.components().insertPublicProject(organization);
    ComponentDto otherProject = db.components().insertPublicProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, randomPermission, project);

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), otherUser.getId(),
randomPermission))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(otherProject.getId()), user.getId(),
randomPermission))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(),
randomPermission))
        .containsOnly(project.getId());
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(), "another
perm"))
        .isEmpty();
}

```

```

@Test
public void keepAuthorizedProjectIds_returns_public_project_if_user_is_granted_project_permission_by_group()
{

```

```

ComponentDto project = db.components().insertPublicProject(organization);
ComponentDto otherProject = db.components().insertPublicProject(organization);
UserDto otherUser = db.users().insertUser();
db.users().insertMember(group1, user);
db.users().insertProjectPermissionOnGroup(group1, randomPermission, project);

assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(),
randomPermission))
    .containsOnly(project.getId());
assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(otherProject.getId()), user.getId(),
randomPermission))
    .isEmpty();
assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), otherUser.getId(),
randomPermission))
    .isEmpty();
assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(), "another
perm"))
    .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_public_project_if_group_AnyOne_is_granted_project_permission_directly() {
    ComponentDto project = db.components().insertPublicProject(organization);
    ComponentDto otherProject = db.components().insertPublicProject(organization);
    db.users().insertProjectPermissionOnAnyone(randomPermission, project);

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), null, randomPermission))
        .containsOnly(project.getId());
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), null, "another perm"))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(otherProject.getId()), null,
randomPermission))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_user_on_private_project_without_any_permission_in_DB_and_perm
ission_USER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, user.getId(),
UserRole.USER))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_group_AnyOne_on_private_project_without_any_permission_in_DB

```

```

_and_permission_USER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, null, UserRole.USER))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_user_on_private_project_without_any_permission_in_DB_and_perm
ission_CODEVIEWER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, user.getId(),
UserRole.CODEVIEWER))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_group_AnyOne_on_private_project_without_any_permission_in_DB
_and_permission_CODEVIEWER() {
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, null,
UserRole.CODEVIEWER))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_user_and_any_permission_on_private_project_without_any_permissi
on_in_DB() {
    ProjectPermissions.ALL
        .forEach(perm -> {
            assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, user.getId(), perm))
                .isEmpty();
        });
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, user.getId(),
randomPermission))
        .isEmpty();
}

@Test
public void
keepAuthorizedProjectIds_returns_empty_for_group_AnyOne_and_any_permission_on_private_project_without_a
ny_permission_in_DB() {
    ProjectPermissions.ALL
        .forEach(perm -> {
            assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, null, perm))
                .isEmpty();
        });
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, randomPrivateProjectIds, null, randomPermission))
        .isEmpty();
}

```



```

}

@Test
public void keepAuthorizedProjectIds_returns_private_project_if_user_is_granted_project_permission_directly() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    ComponentDto otherProject = db.components().insertPrivateProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, randomPermission, project);

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(),
randomPermission))
        .containsOnly(project.getId());
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(), "another
perm"))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(otherProject.getId()), user.getId(),
randomPermission))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), otherUser.getId(),
randomPermission))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_returns_private_project_if_user_is_granted_project_permission_by_group()
{
    ComponentDto project = db.components().insertPrivateProject(organization);
    ComponentDto otherProject = db.components().insertPrivateProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertMember(group1, user);
    db.users().insertProjectPermissionOnGroup(group1, randomPermission, project);

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(),
randomPermission))
        .containsOnly(project.getId());
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), user.getId(), "another
perm"))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(otherProject.getId()), user.getId(),
randomPermission))
        .isEmpty();
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, singleton(project.getId()), otherUser.getId(),
randomPermission))
        .isEmpty();
}

@Test
public void user_should_be_authorized() {

```

```

ComponentDto project1 = db.components().insertPrivateProject(organization);
ComponentDto project2 = db.components().insertPrivateProject(organization);
ComponentDto project3 = db.components().insertPrivateProject(organization);
UserDto user = db.users().insertUser("u1");
GroupDto group = db.users().insertGroup(organization);
db.users().insertProjectPermissionOnUser(user, UserRole.USER, project2);
db.users().insertProjectPermissionOnUser(user, UserRole.USER, project3);
db.users().insertMember(group, user);
db.users().insertProjectPermissionOnGroup(group, UserRole.USER, project1);

assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project2.getId(), project3.getId()),
user.getId(), UserRole.USER))
    .containsOnly(project2.getId(), project3.getId());

// user does not have the role "admin"
assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project2.getId(), user.getId(),
UserRole.ADMIN))
    .isEmpty();

assertThat(underTest.keepAuthorizedProjectIds(dbSession, Collections.emptySet(), user.getId(),
UserRole.ADMIN))
    .isEmpty();
}

@Test
public void group_should_be_authorized() {
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    ComponentDto project3 = db.components().insertPrivateProject(organization);
    UserDto user1 = db.users().insertUser("u1");
    GroupDto group = db.users().insertGroup(organization);
    db.users().insertMembers(group, user1);
    db.users().insertProjectPermissionOnUser(user1, UserRole.USER, project1);
    db.users().insertProjectPermissionOnGroup(group, UserRole.USER, project2);
    db.users().insertProjectPermissionOnGroup(group, UserRole.USER, project3);

    assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project2.getId(), project3.getId()),
user1.getId(), UserRole.USER))
        .containsOnly(project2.getId(), project3.getId());

    // group does not have the role "admin"
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project2.getId(), project3.getId()),
user1.getId(), UserRole.ADMIN))
        .isEmpty();
}

@Test
public void anonymous_should_be_authorized() {

```

```

ComponentDto project1 = db.components().insertPublicProject(organization);
ComponentDto project2 = db.components().insertPublicProject(organization);
UserDto user1 = db.users().insertUser("u1");
GroupDto group = db.users().insertGroup(organization);
db.users().insertMembers(group, user1);

assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project1.getId(), project2.getId()), null,
UserRole.USER))
    .containsOnly(project1.getId(), project2.getId());

// group does not have the role "admin"
assertThat(underTest.keepAuthorizedProjectIds(dbSession, newHashSet(project1.getId(), null, "admin"))
    .isEmpty();
}

@Test
public void keepAuthorizedProjectIds_should_be_able_to_handle_lots_of_projects() {
    List<ComponentDto> projects = IntStream.range(0, 2000).mapToObj(i ->
db.components().insertPublicProject(organization)).collect(Collectors.toList());

    Collection<Long> ids = projects.stream().map(ComponentDto::getId).collect(Collectors.toSet());
    assertThat(underTest.keepAuthorizedProjectIds(dbSession, ids, null, UserRole.USER))
        .containsOnly(ids.toArray(new Long[0]));
}

@Test
public void keepAuthorizedProjectUuids_should_be_able_to_handle_lots_of_projects() {
    List<ComponentDto> projects = IntStream.range(0, 2000).mapToObj(i ->
db.components().insertPublicProject(organization)).collect(Collectors.toList());

    Collection<String> uuids = projects.stream().map(ComponentDto::uuid).collect(Collectors.toSet());
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, uuids, null, UserRole.USER))
        .containsOnly(uuids.toArray(new String[0]));
}

@Test
public void keepAuthorizedUsersForRoleAndProject_returns_empty_if_user_set_is_empty_on_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, Collections.emptySet(),
UserRole.USER, project.getId()))
        .isEmpty();
}

@Test
public void keepAuthorizedUsersForRoleAndProject_returns_empty_for_non_existent_users() {
    ComponentDto project = random.nextBoolean() ? db.components().insertPublicProject(organization) :

```

```

db.components().insertPrivateProject(organization);
Set<Integer> randomNonExistingUserIdsSet = IntStream.range(0, 1 + Math.abs(random.nextInt(5)))
    .map(i -> i + 1_990)
    .boxed()
    .collect(MoreCollectors.toSet());

assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomNonExistingUserIdsSet,
UserRole.USER, project.getId()))
    .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_any_users_for_public_project_without_any_permission_in_DB_a
nd_permission_USER() {
    ComponentDto project = db.components().insertPublicProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
UserRole.USER, project.getId()))
        .containsAll(randomExistingUserIds);
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_any_users_for_public_project_without_any_permission_in_DB_a
nd_permission_CODEVIEWER() {
    ComponentDto project = db.components().insertPublicProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
UserRole.CODEVIEWER, project.getId()))
        .containsAll(randomExistingUserIds);
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_empty_for_any_users_on_public_project_without_any_permissio
n_in_DB() {
    ComponentDto project = db.components().insertPublicProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
randomPermission, project.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_user_if_granted_project_permission_directly_on_public_project()
{

```

```

ComponentDto project = db.components().insertPublicProject(organization);
ComponentDto otherProject = db.components().insertPublicProject(organization);
UserDto otherUser = db.users().insertUser();
db.users().insertProjectPermissionOnUser(user, randomPermission, project);

assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, project.getId()))
    .containsOnly(user.getId());
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()), "another perm",
project.getId()))
    .isEmpty();
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(otherUser.getId()),
randomPermission, project.getId()))
    .isEmpty();
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, otherProject.getId()))
    .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_user_if_granted_project_permission_by_group_on_public_projec
t() {
    ComponentDto project = db.components().insertPublicProject(organization);
    ComponentDto otherProject = db.components().insertPublicProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertMember(group1, user);
    db.users().insertProjectPermissionOnGroup(group1, randomPermission, project);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, project.getId()))
        .containsOnly(user.getId());
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()), "another perm",
project.getId()))
        .isEmpty();
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, otherProject.getId()))
        .isEmpty();
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(otherUser.getId()),
randomPermission, project.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_does_not_return_user_if_granted_project_permission_by_AnyOne_on_p
ublic_project() {
    ComponentDto project = db.components().insertPublicProject(organization);

```

```

ComponentDto otherProject = db.components().insertPublicProject(organization);
UserDto otherUser = db.users().insertUser();
db.users().insertProjectPermissionOnAnyone(randomPermission, project);

assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, project.getId()))
    .isEmpty();
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()), "another perm",
project.getId()))
    .isEmpty();
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, otherProject.getId()))
    .isEmpty();
assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(otherUser.getId()),
randomPermission, project.getId()))
    .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_empty_for_any_user_on_private_project_without_any_permission_in_DB_and_permission_USER() {
    ComponentDto project = db.components().insertPrivateProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
UserRole.USER, project.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_empty_for_any_user_on_private_project_without_any_permission_in_DB_and_permission_CODEVIEWER() {
    ComponentDto project = db.components().insertPrivateProject(organization);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
UserRole.CODEVIEWER, project.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_empty_for_any_users_and_any_permission_on_private_project_without_any_permission_in_DB() {
    ComponentDto project = db.components().insertPrivateProject(organization);

    ProjectPermissions.ALL
        .forEach(perm -> {

```

```

        assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds, perm,
project.getId()))
            .isEmpty();
    });
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, randomExistingUserIds,
randomPermission, project.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_user_if_granted_project_permission_directly_on_private_project(
) {
    ComponentDto project = db.components().insertPrivateProject(organization);
    ComponentDto otherProject = db.components().insertPublicProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, randomPermission, project);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, project.getId()))
        .containsOnly(user.getId());
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()), "another perm",
project.getId()))
        .isEmpty();
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(otherUser.getId()),
randomPermission, project.getId()))
        .isEmpty();
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, otherProject.getId()))
        .isEmpty();
}

@Test
public void
keepAuthorizedUsersForRoleAndProject_returns_user_if_granted_project_permission_by_group_on_private_proje
ct() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    ComponentDto otherProject = db.components().insertPublicProject(organization);
    UserDto otherUser = db.users().insertUser();
    db.users().insertMember(group1, user);
    db.users().insertProjectPermissionOnGroup(group1, randomPermission, project);

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, project.getId()))
        .containsOnly(user.getId());
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()), "another perm",
project.getId()))
        .isEmpty();
}

```

```

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(user.getId()),
randomPermission, otherProject.getId()))
        .isEmpty();
    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession, singleton(otherUser.getId()),
randomPermission, project.getId()))
        .isEmpty();
}

```

@Test

```

public void keep_authorized_users_returns_empty_list_for_role_and_project_for_anonymous() {
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    ComponentDto project3 = db.components().insertPrivateProject(organization);
    UserDto user1 = db.users().insertUser("u1");
    UserDto user2 = db.users().insertUser("u2");
    UserDto user3 = db.users().insertUser("u3");
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    db.users().insertMembers(group1, user1, user2);
    db.users().insertMembers(group2, user3);
    db.users().insertProjectPermissionOnUser(user1, UserRole.USER, project1);
    db.users().insertProjectPermissionOnUser(user2, UserRole.USER, project1);
    db.users().insertProjectPermissionOnUser(user3, UserRole.USER, project1);
    db.users().insertProjectPermissionOnGroup(group2, UserRole.USER, project3);
}

```

```

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession,
// Only 100 and 101 has 'user' role on project
newHashSet(100, 101, 102), "user", PROJECT_ID)).isEmpty();
}

```

@Test

```

public void keepAuthorizedUsersForRoleAndProject_should_be_able_to_handle_lots_of_users() {
    List<UserDto> users = IntStream.range(0, 2000).mapToObj(i ->
db.users().insertUser()).collect(Collectors.toList());

    assertThat(underTest.keepAuthorizedUsersForRoleAndProject(dbSession,
users.stream().map(UserDto::getId).collect(Collectors.toSet()), "user", PROJECT_ID)).isEmpty();
}

```

@Test

```

public void countUsersWithGlobalPermissionExcludingGroupMember() {
// u1 has the direct permission, u2 and u3 have the permission through their group
UserDto u1 = db.users().insertUser();
db.users().insertPermissionOnUser(organization, u1, A_PERMISSION);
db.users().insertPermissionOnGroup(group1, A_PERMISSION);
db.users().insertPermissionOnGroup(group1, "another-permission");
UserDto u2 = db.users().insertUser();
db.users().insertMember(group1, u2);
}

```



```

    UserDto u3 = db.users().insertUser();
    db.users().insertMember(group1, u3);

    // excluding u2 membership --> remain u1 and u3
    int count = underTest.countUsersWithGlobalPermissionExcludingGroupMember(dbSession,
organization.getUuid(), A_PERMISSION, group1.getId(), u2.getId());
    assertThat(count).isEqualTo(2);

    // excluding unknown memberships
    count = underTest.countUsersWithGlobalPermissionExcludingGroupMember(dbSession, organization.getUuid(),
A_PERMISSION, group1.getId(), MISSING_ID);
    assertThat(count).isEqualTo(3);
    count = underTest.countUsersWithGlobalPermissionExcludingGroupMember(dbSession, organization.getUuid(),
A_PERMISSION, MISSING_ID, u2.getId());
    assertThat(count).isEqualTo(3);

    // another organization
    count = underTest.countUsersWithGlobalPermissionExcludingGroupMember(dbSession, DOES_NOT_EXIST,
A_PERMISSION, group1.getId(), u2.getId());
    assertThat(count).isEqualTo(0);

    // another permission
    count = underTest.countUsersWithGlobalPermissionExcludingGroupMember(dbSession, organization.getUuid(),
DOES_NOT_EXIST, group1.getId(), u2.getId());
    assertThat(count).isEqualTo(0);
}

@Test
public void countUsersWithGlobalPermissionExcludingUserPermission() {
    // u1 and u2 have the direct permission, u3 has the permission through his group
    UserDto u1 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization, u1, A_PERMISSION);
    UserDto u2 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization, u2, A_PERMISSION);
    db.users().insertPermissionOnGroup(group1, A_PERMISSION);
    UserDto u3 = db.users().insertUser();
    db.users().insertMember(group1, u3);

    // excluding u2 permission --> remain u1 and u3
    int count = underTest.countUsersWithGlobalPermissionExcludingUserPermission(dbSession,
organization.getUuid(), A_PERMISSION, u2.getId());
    assertThat(count).isEqualTo(2);

    // excluding unknown user
    count = underTest.countUsersWithGlobalPermissionExcludingUserPermission(dbSession, organization.getUuid(),
A_PERMISSION, MISSING_ID);
    assertThat(count).isEqualTo(3);
}

```

```

    // another organization
    count = underTest.countUsersWithGlobalPermissionExcludingUserPermission(dbSession, DOES_NOT_EXIST,
A_PERMISSION, u2.getId());
    assertThat(count).isEqualTo(0);

    // another permission
    count = underTest.countUsersWithGlobalPermissionExcludingUserPermission(dbSession, organization.getUuid(),
DOES_NOT_EXIST, u2.getId());
    assertThat(count).isEqualTo(0);
}

@Test
public void selectOrganizationUuidsOfUserWithGlobalPermission_returns_empty_set_if_user_does_not_exist() {
    // another user
    db.users().insertPermissionOnUser(user, ADMINISTER_QUALITY_GATES);

    Set<String> orgUuids = underTest.selectOrganizationUuidsOfUserWithGlobalPermission(dbSession,
MISSING_ID, SYSTEM_ADMIN);

    assertThat(orgUuids).isEmpty();
}

@Test
public void
selectOrganizationUuidsOfUserWithGlobalPermission_returns_empty_set_if_user_does_not_have_permission_at_a
ll() {
    db.users().insertPermissionOnUser(user, ADMINISTER_QUALITY_GATES);
    // user is not part of this group
    db.users().insertPermissionOnGroup(group1, SCAN_EXECUTION);

    Set<String> orgUuids = underTest.selectOrganizationUuidsOfUserWithGlobalPermission(dbSession, user.getId(),
SCAN_EXECUTION);

    assertThat(orgUuids).isEmpty();
}

@Test
public void
selectOrganizationUuidsOfUserWithGlobalPermission_returns_organizations_on_which_user_has_permission() {
    db.users().insertPermissionOnGroup(group1, SCAN_EXECUTION);
    db.users().insertPermissionOnGroup(group2, QUALITY_GATE_ADMIN);
    db.users().insertMember(group1, user);
    db.users().insertMember(group2, user);

    Set<String> orgUuids = underTest.selectOrganizationUuidsOfUserWithGlobalPermission(dbSession, user.getId(),
SCAN_EXECUTION);

    assertThat(orgUuids).containsExactly(group1.getOrganizationUuid());
}

```

```

}

@Test
public void
selectOrganizationUuidsOfUserWithGlobalPermission_handles_user_permissions_and_group_permissions() {
    // organization: through group membership
    db.users().insertPermissionOnGroup(group1, SCAN_EXECUTION);
    db.users().insertMember(group1, user);

    // org2 : direct user permission
    OrganizationDto org2 = db.organizations().insert();
    db.users().insertPermissionOnUser(org2, user, SCAN_EXECUTION);

    // org3 : another permission QUALITY_GATE_ADMIN
    OrganizationDto org3 = db.organizations().insert();
    db.users().insertPermissionOnUser(org3, user, QUALITY_GATE_ADMIN);

    // exclude project permission
    db.users().insertProjectPermissionOnUser(user, UserRole.ADMIN, db.components().insertPrivateProject());

    Set<String> orgUuids = underTest.selectOrganizationUuidsOfUserWithGlobalPermission(dbSession, user.getId(),
SCAN_EXECUTION);

    assertThat(orgUuids).containsOnly(organization.getUuid(), org2.getUuid());
}

@Test
public void selectOrganizationUuidsOfUserWithGlobalPermission_ignores_anonymous_permissions() {
    db.users().insertPermissionOnAnyone(organization, SCAN);
    db.users().insertPermissionOnUser(organization, user, ADMINISTER_QUALITY_GATES);

    Set<String> orgUuids = underTest.selectOrganizationUuidsOfUserWithGlobalPermission(dbSession, user.getId(),
SCAN.getKey());

    assertThat(orgUuids).isEmpty();
}

@Test
public void
selectProjectPermissionsOfAnonymous_returns_permissions_of_anonymous_user_on_specified_public_project() {
    ComponentDto project = db.components().insertPublicProject(organization);
    db.users().insertProjectPermissionOnAnyone("p1", project);
    db.users().insertProjectPermissionOnUser(db.users().insertUser(), "p2", project);
    ComponentDto otherProject = db.components().insertPublicProject();
    db.users().insertProjectPermissionOnAnyone("p3", otherProject);

    assertThat(underTest.selectProjectPermissionsOfAnonymous(dbSession, project.uuid()).containsOnly("p1"));
}

```

```

@Test
public void selectProjectPermissionsOfAnonymous_returns_empty_set_when_project_does_not_exist() {
    assertThat(underTest.selectProjectPermissionsOfAnonymous(dbSession, "does_not_exist").isEmpty());
}

@Test
public void selectProjectPermissions_returns_empty_set_when_logged_in_user_and_project_does_not_exist() {
    assertThat(underTest.selectProjectPermissions(dbSession, "does_not_exist", user.getId()).isEmpty());
}

@Test
public void
selectProjectPermissions_returns_permissions_of_logged_in_user_on_specified_public_project_through_anonymou
s_permissions() {
    ComponentDto project = db.components().insertPublicProject(organization);
    db.users().insertProjectPermissionOnAnyone("p1", project);
    db.users().insertProjectPermissionOnAnyone("p2", project);

    assertThat(underTest.selectProjectPermissions(dbSession, project.uuid(), user.getId())).containsOnly("p1", "p2");
}

@Test
public void selectProjectPermissions_returns_permissions_of_logged_in_user_on_specified_project() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    db.users().insertProjectPermissionOnUser(user, UserRole.CODEVIEWER, project);
    db.users().insertProjectPermissionOnUser(db.users().insertUser(), UserRole.ISSUE_ADMIN, project);

    assertThat(underTest.selectProjectPermissions(dbSession, project.uuid(),
user.getId())).containsOnly(UserRole.CODEVIEWER);
}

@Test
public void
selectProjectPermissions_returns_permissions_of_logged_in_user_on_specified_project_through_group_membershi
p() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    db.users().insertProjectPermissionOnGroup(group1, UserRole.CODEVIEWER, project);
    db.users().insertProjectPermissionOnGroup(group2, UserRole.ISSUE_ADMIN, project);
    db.users().insertMember(group1, user);

    assertThat(underTest.selectProjectPermissions(dbSession, project.uuid(),
user.getId())).containsOnly(UserRole.CODEVIEWER);
}

@Test
public void
selectProjectPermissions_returns_permissions_of_logged_in_user_on_specified_private_project_through_all_possi

```

```

ble_configurations() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    db.users().insertProjectPermissionOnUser(user, UserRole.CODEVIEWER, project);
    db.users().insertProjectPermissionOnGroup(group1, UserRole.USER, project);
    db.users().insertMember(group1, user);

    assertThat(underTest.selectProjectPermissions(dbSession, project.uuid(),
user.getId())).containsOnly(UserRole.CODEVIEWER, UserRole.USER);
}

@Test
public void
selectProjectPermissions_returns_permissions_of_logged_in_user_on_specified_public_project_through_all_possible_configurations() {
    ComponentDto project = db.components().insertPublicProject(organization);
    db.users().insertProjectPermissionOnUser(user, "p1", project);
    db.users().insertProjectPermissionOnAnyone("p2", project);
    db.users().insertProjectPermissionOnGroup(group1, "p3", project);
    db.users().insertMember(group1, user);

    assertThat(underTest.selectProjectPermissions(dbSession, project.uuid(), user.getId())).containsOnly("p1", "p2",
"p3");
}

@Test
public void keepAuthorizedProjectUuids_filters_projects_authorized_to_logged_in_user_by_direct_permission() {
    ComponentDto privateProject = db.components().insertPrivateProject(organization);
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    UserDto user = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, UserRole.ADMIN, privateProject);

    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(privateProject.uuid(),
publicProject.uuid()), user.getId(), UserRole.ADMIN))
        .containsOnly(privateProject.uuid());
    // user does not have the permission "issueadmin"
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(privateProject.uuid(),
publicProject.uuid()), user.getId(), UserRole.ISSUE_ADMIN))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectUuids_filters_projects_authorized_to_logged_in_user_by_group_permission() {
    ComponentDto privateProject = db.components().insertPrivateProject(organization);
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup(organization);
    db.users().insertMember(group, user);
    db.users().insertProjectPermissionOnGroup(group, UserRole.ADMIN, privateProject);
}

```

```

    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(privateProject.uuid(),
publicProject.uuid()), user.getId(), UserRole.ADMIN))
        .containsOnly(privateProject.uuid());
    // user does not have the permission "issueadmin"
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(privateProject.uuid(),
publicProject.uuid()), user.getId(), UserRole.ISSUE_ADMIN))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectUuids_returns_empty_list_if_input_is_empty() {
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    UserDto user = db.users().insertUser();

    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, Collections.emptySet(), user.getId(),
UserRole.USER))
        .isEmpty();

    // projects do not exist
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet("does_not_exist"), user.getId(),
UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectUuids_returns_empty_list_if_input_does_not_reference_existing_projects() {
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    UserDto user = db.users().insertUser();

    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet("does_not_exist"), user.getId(),
UserRole.USER))
        .isEmpty();
}

@Test
public void keepAuthorizedProjectUuids_returns_public_projects_if_permission_USER_or_CODEVIEWER() {
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    UserDto user = db.users().insertUser();

    // logged-in user
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), user.getId(),
UserRole.CODEVIEWER))
        .containsOnly(publicProject.uuid());
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), user.getId(),
UserRole.USER))
        .containsOnly(publicProject.uuid());
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), user.getId(),

```

```

UserRole.ADMIN))
    .isEmpty();

    // anonymous
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), null,
UserRole.CODEVIEWER))
        .containsOnly(publicProject.uuid());
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), null,
UserRole.USER))
        .containsOnly(publicProject.uuid());
    assertThat(underTest.keepAuthorizedProjectUuids(dbSession, newHashSet(publicProject.uuid()), null,
UserRole.ADMIN))
        .isEmpty();
}

@Test
public void
selectQualityProfileAdministratorLogins_return_users_with_quality_profile_administrator_permission() {
    OrganizationDto organization1 = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization1, user1, ADMINISTER_QUALITY_PROFILES);
    OrganizationDto organization2 = db.organizations().insert();
    UserDto user2 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization2, user2, ADMINISTER_QUALITY_PROFILES);

    List<String> logins = underTest.selectQualityProfileAdministratorLogins(dbSession);

    assertThat(logins).containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
}

@Test
public void selectQualityProfileAdministratorLogins_return_users_within_quality_profile_administrator_group() {
    OrganizationDto organization1 = db.organizations().insert();
    GroupDto qualityProfileAdministratorGroup1 = db.users().insertGroup(organization1);
    db.users().insertPermissionOnGroup(qualityProfileAdministratorGroup1,
ADMINISTER_QUALITY_PROFILES);
    UserDto user1 = db.users().insertUser();
    db.users().insertMember(qualityProfileAdministratorGroup1, user1);
    OrganizationDto organization2 = db.organizations().insert();
    GroupDto qualityProfileAdministratorGroup2 = db.users().insertGroup(organization2);
    db.users().insertPermissionOnGroup(qualityProfileAdministratorGroup2,
ADMINISTER_QUALITY_PROFILES);
    UserDto user2 = db.users().insertUser();
    db.users().insertMember(qualityProfileAdministratorGroup2, user2);

    List<String> logins = underTest.selectQualityProfileAdministratorLogins(dbSession);

    assertThat(logins).containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
}

```

```

}

@Test
public void selectQualityProfileAdministratorLogins_does_not_return_non_quality_profile_administrator_logins()
{
    OrganizationDto organization1 = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization1, user1, ADMINISTER);
    db.users().insertUser();

    List<String> logins = underTest.selectQualityProfileAdministratorLogins(dbSession);

    assertThat(logins).isEmpty();
}

```

```

@Test
public void selectGlobalAdministratorLogins() {
    OrganizationDto organization1 = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization1, user1, ADMINISTER);
    OrganizationDto organization2 = db.organizations().insert();
    UserDto user2 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization2, user2, ADMINISTER);

    GroupDto administratorGroup2 = db.users().insertGroup(organization2);
    db.users().insertPermissionOnGroup(administratorGroup2, ADMINISTER);
    UserDto user3 = db.users().insertUser();
    db.users().insertMember(administratorGroup2, user3);

    ComponentDto project = db.components().insertPrivateProject();

    UserDto user4 = db.users().insertUser();
    db.users().insertPermissionOnUser(organization1, user4, ADMINISTER_QUALITY_PROFILES);
    db.users().insertProjectPermissionOnUser(user4, "admin", project);
    db.users().insertUser();

    List<String> logins = underTest.selectGlobalAdministratorLogins(dbSession);

    assertThat(logins).containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin(), user3.getLogin());
}

```

```

@Test
public void keepAuthorizedLoginsOnProject_return_correct_users_on_public_project() {
    ComponentDto project = db.components().insertPublicProject(organization);

    UserDto user1 = db.users().insertUser();

    // admin with "direct" ADMIN role

```



```

UserDto admin1 = db.users().insertUser();
db.users().insertProjectPermissionOnUser(admin1, UserRole.ADMIN, project);

// admin2 with ADMIN role through group
UserDto admin2 = db.users().insertUser();
GroupDto adminGroup = db.users().insertGroup(organization, "ADMIN");
db.users().insertMember(adminGroup, admin2);
db.users().insertProjectPermissionOnGroup(adminGroup, UserRole.ADMIN, project);

assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(user1.getLogin()),
project.getKey(), UserRole.USER))
    .containsOnly(user1.getLogin());
assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(user1.getLogin(),
admin1.getLogin(), admin2.getLogin()), project.getKey(), UserRole.USER))
    .containsOnly(user1.getLogin(), admin1.getLogin(), admin2.getLogin());
assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(user1.getLogin(),
admin1.getLogin(), admin2.getLogin()), project.getKey(), UserRole.ADMIN))
    .containsOnly(admin1.getLogin(), admin2.getLogin());
}

@Test
public void keepAuthorizedLoginsOnProject_return_correct_users_on_private_project() {
    ComponentDto project = db.components().insertPrivateProject(organization);

    GroupDto userGroup = db.users().insertGroup(organization, "USERS");
    GroupDto adminGroup = db.users().insertGroup(organization, "ADMIN");
    db.users().insertProjectPermissionOnGroup(userGroup, UserRole.USER, project);
    db.users().insertProjectPermissionOnGroup(adminGroup, UserRole.ADMIN, project);

    // admin with "direct" ADMIN role
    UserDto admin1 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(admin1, UserRole.ADMIN, project);

    // admin2 with ADMIN role through group
    UserDto admin2 = db.users().insertUser();
    db.users().insertMember(adminGroup, admin2);

    // user1 with "direct" USER role
    UserDto user1 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user1, UserRole.USER, project);

    // user2 with USER role through group
    UserDto user2 = db.users().insertUser();
    db.users().insertMember(userGroup, user2);

    // user without role
    UserDto userWithNoRole = db.users().insertUser();

```

```

    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(userWithNoRole.getLogin()),
project.getKey(), UserRole.USER))
        .isEmpty();
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(user1.getLogin()),
project.getKey(), UserRole.USER))
        .containsOnly(user1.getLogin());

    Set<String> allLogins = newHashSet(admin1.getLogin(), admin2.getLogin(), user1.getLogin(), user2.getLogin(),
userWithNoRole.getLogin());

    // Admin does not have the USER permission set
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, allLogins, project.getKey(), UserRole.USER))
        .containsOnly(user1.getLogin(), user2.getLogin());
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, allLogins, project.getKey(),
UserRole.ADMIN))
        .containsOnly(admin1.getLogin(), admin2.getLogin());
}

@Test
public void keepAuthorizedLoginsOnProject_return_correct_users_on_branch() {
    ComponentDto project = db.components().insertPrivateProject(organization);
    ComponentDto branch = db.components().insertProjectBranch(project, c ->
c.setBranchType(random.nextBoolean() ? BranchType.SHORT : BranchType.LONG));

    GroupDto userGroup = db.users().insertGroup(organization, "USERS");
    GroupDto adminGroup = db.users().insertGroup(organization, "ADMIN");
    db.users().insertProjectPermissionOnGroup(userGroup, UserRole.USER, project);
    db.users().insertProjectPermissionOnGroup(adminGroup, UserRole.ADMIN, project);

    // admin with "direct" ADMIN role
    UserDto admin1 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(admin1, UserRole.ADMIN, project);

    // admin2 with ADMIN role through group
    UserDto admin2 = db.users().insertUser();
    db.users().insertMember(adminGroup, admin2);

    // user1 with "direct" USER role
    UserDto user1 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user1, UserRole.USER, project);

    // user2 with USER role through group
    UserDto user2 = db.users().insertUser();
    db.users().insertMember(userGroup, user2);

    // user without role
    UserDto userWithNoRole = db.users().insertUser();

```

```

    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(userWithNoRole.getLogin()),
branch.getKey(), UserRole.USER))
        .isEmpty();
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, newHashSet(user1.getLogin()),
branch.getKey(), UserRole.USER))
        .containsOnly(user1.getLogin());

    Set<String> allLogins = newHashSet(admin1.getLogin(), admin2.getLogin(), user1.getLogin(), user2.getLogin(),
userWithNoRole.getLogin());

    // Admin does not have the USER permission set
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, allLogins, branch.getKey(), UserRole.USER))
        .containsOnly(user1.getLogin(), user2.getLogin());
    assertThat(underTest.keepAuthorizedLoginsOnProject(dbSession, allLogins, branch.getKey(),
UserRole.ADMIN))
        .containsOnly(admin1.getLogin(), admin2.getLogin());
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import static com.google.common.base.Preconditions.checkNotNull;

public class PermissionTemplateCharacteristicDto {

    private static final int MAX_PERMISSION_KEY_LENGTH = 64;

    private Long id;
    private long templateId;
    private String permission;

```

```

private boolean withProjectCreator;
private long createdAt;
private long updatedAt;

public Long getId() {
    return id;
}

public PermissionTemplateCharacteristicDto setId(Long id) {
    this.id = id;
    return this;
}

public long getTemplateId() {
    return templateId;
}

public PermissionTemplateCharacteristicDto setTemplateId(long templateId) {
    this.templateId = templateId;
    return this;
}

public String getPermission() {
    return permission;
}

public PermissionTemplateCharacteristicDto setPermission(String permission) {
    checkArgument(permission.length() <= MAX_PERMISSION_KEY_LENGTH, "Permission key length (%s) is
longer than the maximum authorized (%s). '%s' was provided.",
    permission.length(), MAX_PERMISSION_KEY_LENGTH, permission);
    this.permission = permission;
    return this;
}

public boolean getWithProjectCreator() {
    return withProjectCreator;
}

public PermissionTemplateCharacteristicDto setWithProjectCreator(boolean withProjectCreator) {
    this.withProjectCreator = withProjectCreator;
    return this;
}

public long getCreatedAt() {
    return createdAt;
}

public PermissionTemplateCharacteristicDto setCreatedAt(long createdAt) {

```

```

        this.createdAt = createdAt;
        return this;
    }

    public long getUpdatedAt() {
        return updatedAt;
    }

    public PermissionTemplateCharacteristicDto setUpdatedAt(long updatedAt) {
        this.updatedAt = updatedAt;
        return this;
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import java.util.Optional;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.server.permission.PermissionChange;
import org.sonar.server.permission.PermissionUpdater;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.permission.UserId;
import org.sonar.server.permission.UserPermissionChange;
import org.sonar.server.user.UserSession;

```

```

import static java.util.Arrays.asList;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createUserLoginParameter;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class RemoveUserAction implements PermissionsWsAction {

    public static final String ACTION = "remove_user";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionUpdater permissionUpdater;
    private final PermissionWsSupport support;

    public RemoveUserAction(DbClient dbClient, UserSession userSession, PermissionUpdater permissionUpdater,
PermissionWsSupport support) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.permissionUpdater = permissionUpdater;
        this.support = support;
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction(ACTION)
            .setDescription("Remove permission from a user.<br /> " +
                "This service defaults to global permissions, but can be limited to project permissions by providing project id or
project key.<br /> " +
                "Requires one of the following permissions:" +
                "<ul>" +
                "<li>'Administer System'</li>" +
                "<li>'Administer' rights on the specified project</li>" +
                "</ul>")
            .setSince("5.2")
            .setPost(true)
            .setHandler(this);

        createPermissionParameter(action);
        createUserLoginParameter(action);
        createProjectParameters(action);
        createOrganizationParameter(action).setSince("6.2");
    }
}

```

```

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        UserId user = support.findUser(dbSession, request.mandatoryParam(PARAM_USER_LOGIN));
        Optional<ProjectId> projectId = support.findProjectId(dbSession, request);
        OrganizationDto org = support.findOrganization(dbSession, request.param(PARAM_ORGANIZATION));

        checkProjectAdmin(userSession, org.getUuid(), projectId);

        PermissionChange change = new UserPermissionChange(
            PermissionChange.Operation.REMOVE,
            org.getUuid(),
            request.mandatoryParam(PARAM_PERMISSION),
            projectId.orElse(null),
            user);
        permissionUpdater.apply(dbSession, asList(change));
        response.noContent();
    }
}
}
}

```

The MIT License (MIT)

Copyright (c) 2000 - 2013 The Legion of the Bouncy Castle Inc.
 (<http://www.bouncycastle.org>)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

```

<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN" "mybatis-3-mapper.dtd">
<mapper namespace="org.sonar.db.permission.template.PermissionTemplateCharacteristicMapper">
    <sql id="columns">
        ptc.id,
        ptc.template_id as templateId,
    
```

```

    ptc.permission_key as permission,
    ptc.with_project_creator as withProjectCreator,
    ptc.created_at as createdAt,
    ptc.updated_at as updatedAt
</sql>

<select id="selectById" parameterType="long" resultType="PermissionTemplateCharacteristic">
  select
  <include refid="columns" />
  from perm_tpl_characteristics ptc
  where ptc.id=#{id,jdbcType=BIGINT}
</select>

<select id="selectByTemplateIds" parameterType="long" resultType="PermissionTemplateCharacteristic">
  select
  <include refid="columns" />
  from perm_tpl_characteristics ptc
  where
  ptc.template_id in
  <foreach collection="templateIds" open="(" close=")" item="templateId" separator=",">
    #{templateId}
  </foreach>
  order by id
</select>

<select id="selectByPermissionAndTemplateId" parameterType="map"
resultType="PermissionTemplateCharacteristic">
  select
  <include refid="columns" />
  from perm_tpl_characteristics ptc
  where ptc.template_id=#{templateId}
  and ptc.permission_key=#{permission}
  order by id
</select>

<insert id="insert" parameterType="PermissionTemplateCharacteristic" keyColumn="id"
useGeneratedKeys="true" keyProperty="id">
  insert into perm_tpl_characteristics(template_id, permission_key, with_project_creator, created_at, updated_at)
  values("#{templateId,jdbcType=BIGINT}", #{permission,jdbcType=VARCHAR}, #{withProjectCreator,
jdbcType=BOOLEAN}, #{createdAt,jdbcType=BIGINT}, #{updatedAt,jdbcType=BIGINT})
</insert>

<update id="update" parameterType="PermissionTemplateCharacteristic" useGeneratedKeys="false">
  update perm_tpl_characteristics set
  with_project_creator=#{withProjectCreator,jdbcType=BOOLEAN},
  updated_at=#{updatedAt,jdbcType=BIGINT}
  where id=#{id}
</update>

```



```
<delete id="deleteByTemplateId" parameterType="long">
  DELETE FROM perm_tpl_characteristics
  WHERE template_id = #{permissionTemplateId}
</delete>
```

```
<delete id="deleteByTemplateIds" parameterType="long">
  delete from
    perm_tpl_characteristics
  where
    template_id in
    <foreach collection="templateIds" open="(" close=")" item="templateId" separator=",">
      #{templateId}
    </foreach>
</delete>
```

```
</mapper>
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
```

```
*
```

```
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
```

```
*
```

```
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

```
*/
```

```
package org.sonar.server.permission.ws.template;
```

```
import javax.annotation.Nullable;
```

```
import org.junit.Test;
```

```
import org.sonar.api.resources.Qualifiers;
```

```
import org.sonar.db.DbClient;
```

```
import org.sonar.db.DbSession;
```

```
import org.sonar.db.organization.DefaultTemplates;
```

```
import org.sonar.db.organization.OrganizationDto;
```

```
import org.sonar.db.permission.template.PermissionTemplateDto;
```

```
import org.sonar.db.permission.template.PermissionTemplateTesting;
```

```
import org.sonar.server.exceptions.BadRequestException;
```

```
import org.sonar.server.exceptions.ForbiddenException;
```

```

import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.i18n.I18nRule;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.resources.Qualifiers.APP;
import static org.sonar.api.resources.Qualifiers.PROJECT;
import static org.sonar.api.resources.Qualifiers.VIEW;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class SetDefaultTemplateActionTest extends BasePermissionWsTest<SetDefaultTemplateAction> {

    private DbClient dbClient = db.getDbClient();
    private I18nRule i18n = new I18nRule();

    @Override
    protected SetDefaultTemplateAction buildWsAction() {
        return new SetDefaultTemplateAction(db.getDbClient(), newPermissionWsSupport(), newRootResourceTypes(),
            userSession, i18n);
    }

    @Test
    public void update_project_default_template() throws Exception {
        PermissionTemplateDto viewDefaultTemplate =
            db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
        db.organizations().setDefaultTemplates(db.permissionTemplates().insertTemplate(db.getDefaultOrganization()),
            viewDefaultTemplate);
        PermissionTemplateDto template = insertTemplate(db.getDefaultOrganization());
        loginAsAdmin(db.getDefaultOrganization());

        newRequest(template.getUuid(), Qualifiers.PROJECT);

        assertDefaultTemplates(db.getDefaultOrganization(), template.getUuid(), viewDefaultTemplate.getUuid());
    }

    @Test
    public void update_project_default_template_without_qualifier_param() throws Exception {
        OrganizationDto organization = db.organizations().insert();
        db.organizations().setDefaultTemplates(organization, "any-project-template-uuid", "any-view-template-uuid");
        PermissionTemplateDto template = insertTemplate(organization);
        loginAsAdmin(organization);

        // default value is project qualifier's value
    }
}

```

```

newRequest(template.getUuid(), null);

assertDefaultTemplates(organization, template.getUuid(), "any-view-template-uuid");
}

@Test
public void update_project_default_template_by_template_name() {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto viewDefaultTemplate = db.permissionTemplates().insertTemplate(organization);
    db.organizations().setDefaultTemplates(db.permissionTemplates().insertTemplate(organization),
        viewDefaultTemplate);
    PermissionTemplateDto template = insertTemplate(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_TEMPLATE_NAME, template.getName().toUpperCase())
        .execute();
    db.getSession().commit();

    assertDefaultTemplates(organization, template.getUuid(), viewDefaultTemplate.getUuid());
}

@Test
public void update_view_default_template() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto projectDefaultTemplate = db.permissionTemplates().insertTemplate(organization);
    db.organizations().setDefaultTemplates(projectDefaultTemplate, null);
    PermissionTemplateDto template = insertTemplate(organization);
    loginAsAdmin(organization);

    newRequest(template.getUuid(), VIEW);

    assertDefaultTemplates(organization, projectDefaultTemplate.getUuid(), template.getUuid());
}

@Test
public void fail_if_update_default_template_with_app_qualifier() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto projectDefaultTemplate = db.permissionTemplates().insertTemplate(organization);
    db.organizations().setDefaultTemplates(projectDefaultTemplate, null);
    PermissionTemplateDto template = insertTemplate(organization);
    loginAsAdmin(organization);

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("Value of parameter 'qualifier' (APP) must be one of: [TRK, VW]");

    newRequest(template.getUuid(), APP);
}

```

```

}

@Test
public void fail_if_anonymous() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplate(organization);
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest(template.getUuid(), PROJECT);
}

@Test
public void fail_if_not_admin() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplate(organization);
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest(template.getUuid(), null);
}

@Test
public void fail_if_template_not_provided() throws Exception {
    expectedException.expect(BadRequestException.class);

    newRequest(null, PROJECT);
}

@Test
public void fail_if_template_does_not_exist() throws Exception {
    expectedException.expect(NotFoundException.class);

    newRequest("unknown-template-uuid", PROJECT);
}

@Test
public void fail_if_qualifier_is_not_root() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplate(organization);
    loginAsAdmin(organization);

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("Value of parameter 'qualifier' (FIL) must be one of: [TRK, VW]");

    newRequest(template.getUuid(), Qualifiers.FILE);
}

```

```

}

@Test
public void fail_if_organization_has_no_default_templates() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplate(organization);
    loginAsAdmin(organization);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("No Default templates for organization with uuid '" + organization.getUuid() +
    """);

    newRequest(template.getUuid(), null);
}

private String newRequest(@Nullable String templateUuid, @Nullable String qualifier) {
    TestRequest request = newRequest();
    if (templateUuid != null) {
        request.setParam(PARAM_TEMPLATE_ID, templateUuid);
    }
    if (qualifier != null) {
        request.setParam(PARAM_QUALIFIER, qualifier);
    }

    return request.execute().getInput();
}

private PermissionTemplateDto insertTemplate(OrganizationDto organization) {
    PermissionTemplateDto res = dbClient.permissionTemplateDao().insert(db.getSession(),
PermissionTemplateTesting.newPermissionTemplateDto()
        .setOrganizationUuid(organization.getUuid())
        .setUuid("permission-template-uuid"));
    db.commit();
    return res;
}

private void assertDefaultTemplates(OrganizationDto organizationDto,
    @Nullable String projectDefaultTemplateUuid, @Nullable String viewDefaultTemplateUuid) {
    DbSession dbSession = db.getSession();
    DefaultTemplates defaultTemplates = db.getDbClient().organizationDao().getDefaultTemplates(dbSession,
organizationDto.getUuid())
        .orElseThrow(() -> new IllegalStateException("No default templates for organization with uuid '" +
organizationDto.getUuid() + """));

    assertThat(defaultTemplates.getProjectUuid()).isEqualTo(projectDefaultTemplateUuid);
    assertThat(defaultTemplates.getViewUuid()).isEqualTo(viewDefaultTemplateUuid);
}
}

```

```

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```

```
package org.sonar.server.permission.ws.template;
```

```

import java.util.List;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.UserId;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createUserLoginParameter;
import static org.sonar.server.permission.ws.template.WsTemplateRef.newTemplateRef;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

```

```

import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class AddUserToTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport wsSupport;
    private final UserSession userSession;

    public AddUserToTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport, UserSession userSession)
    {
        this.dbClient = dbClient;
        this.wsSupport = wsSupport;
        this.userSession = userSession;
    }

    private static AddUserToTemplateRequest toAddUserToTemplateWsRequest(Request request) {
        return new AddUserToTemplateRequest()
            .setLogin(request.mandatoryParam(PARAM_USER_LOGIN))
            .setPermission(request.mandatoryParam(PARAM_PERMISSION))
            .setTemplateId(request.param(PARAM_TEMPLATE_ID))
            .setOrganization(request.param(PARAM_ORGANIZATION))
            .setTemplateName(request.param(PARAM_TEMPLATE_NAME));
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context
            .createAction("add_user_to_template")
            .setPost(true)
            .setSince("5.2")
            .setDescription("Add a user to a permission template.<br /> " +
                "Requires the following permission: 'Administer System'.")
            .setHandler(this);

        createTemplateParameters(action);
        createProjectPermissionParameter(action);
        createUserLoginParameter(action);
    }

    @Override
    public void handle(Request request, Response response) throws Exception {
        doHandle(toAddUserToTemplateWsRequest(request));
        response.noContent();
    }

    private void doHandle(AddUserToTemplateRequest request) {
        String permission = request.getPermission();
        String userLogin = request.getLogin();
    }

```

```

try (DbSession dbSession = dbClient.openSession(false)) {
    PermissionTemplateDto template = wsSupport.findTemplate(dbSession, newTemplateRef(
        request.getTemplateId(), request.getOrganization(), request.getTemplateName()));
    OrganizationDto organizationDto = wsSupport.findOrganization(dbSession, request.getOrganization());
    checkGlobalAdmin(userSession, organizationDto.getUuid());
    UserId user = wsSupport.findUser(dbSession, userLogin);
    wsSupport.checkMembership(dbSession, organizationDto, user);

    if (!isUserAlreadyAdded(dbSession, organizationDto, template.getId(), userLogin, permission)) {
        dbClient.permissionTemplateDao().insertUserPermission(dbSession, template.getId(), user.getId(), permission);
        dbSession.commit();
    }
}
}

```

```

private boolean isUserAlreadyAdded(DbSession dbSession, OrganizationDto organizationDto, long templateId,
String userLogin, String permission) {
    PermissionQuery permissionQuery =
PermissionQuery.builder().setOrganizationUuid(organizationDto.getUuid()).setPermission(permission).build();
    List<String> usersWithPermission =
dbClient.permissionTemplateDao().selectUserLoginsByQueryAndTemplate(dbSession, permissionQuery,
templateId);
    return usersWithPermission.stream().anyMatch(s -> s.equals(userLogin));
}

```

```

private static class AddUserToTemplateRequest {
    private String login;
    private String permission;
    private String templateId;
    private String organization;
    private String templateName;

    public String getLogin() {
        return login;
    }

    public AddUserToTemplateRequest setLogin(String login) {
        this.login = requireNonNull(login);
        return this;
    }

    public String getPermission() {
        return permission;
    }

    public AddUserToTemplateRequest setPermission(String permission) {
        this.permission = requireNonNull(permission);
        return this;
    }
}

```



```

}

@CheckForNull
public String getTemplateId() {
    return templateId;
}

public AddUserToTemplateRequest setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public AddUserToTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public AddUserToTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *

```

```

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
@ParametersAreNonnullByDefault
package org.sonar.db.permission;

import javax.annotation.ParametersAreNonnullByDefault;
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission;

import java.util.Locale;
import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
import javax.annotation.concurrent.Immutable;
import org.sonar.db.WildcardPosition;

import static com.google.common.base.MoreObjects.firstNonNull;
import static com.google.common.base.Preconditions.checkArgument;
import static java.util.Objects.requireNonNull;
import static org.apache.commons.lang.StringUtils.defaultIfBlank;
import static org.sonar.api.utils.Paging.offset;
import static org.sonar.db.DaoUtils.buildLikeValue;

/**
* Query used to get users and groups permissions
*/
@Immutable
public class PermissionQuery {
    public static final int RESULTS_MAX_SIZE = 100;

```

```

public static final int SEARCH_QUERY_MIN_LENGTH = 3;
public static final int DEFAULT_PAGE_SIZE = 20;
public static final int DEFAULT_PAGE_INDEX = 1;

// filter: return only the users or groups that are members of the organization
private final String organizationUuid;
// filter: return only the users or groups who have this permission
private final String permission;
// filter on project, else filter org permissions
private final String componentUuid;
private final String template;

// filter on login, email or name of users or groups
private final String searchQuery;
private final String searchQueryToSql;
private final String searchQueryToSqlLowercase;

// filter users or groups who have at least one permission. It does make
// sense when the filter "permission" is set.
private final boolean withAtLeastOnePermission;

private final int pageSize;
private final int pageOffset;

private PermissionQuery(Builder builder) {
    this.organizationUuid = builder.organizationUuid;
    this.permission = builder.permission;
    this.withAtLeastOnePermission = builder.withAtLeastOnePermission;
    this.componentUuid = builder.componentUuid;
    this.template = builder.template;
    this.searchQuery = builder.searchQuery;
    this.searchQueryToSql = builder.searchQuery == null ? null : buildLikeValue(builder.searchQuery,
WildcardPosition.BEFORE_AND_AFTER);
    this.searchQueryToSqlLowercase = searchQueryToSql == null ? null :
searchQueryToSql.toLowerCase(Locale.ENGLISH);
    this.pageSize = builder.pageSize;
    this.pageOffset = offset(builder.pageIndex, builder.pageSize);
}

public String getOrganizationUuid() {
    return organizationUuid;
}

@CheckForNull
public String getPermission() {
    return permission;
}

```

```

public boolean withAtLeastOnePermission() {
    return withAtLeastOnePermission;
}

// TODO remove it, it should not be in the query, but set as a separate parameter
@Deprecated
public String template() {
    return template;
}

@CheckForNull
public String getComponentUuid() {
    return componentUuid;
}

@CheckForNull
public String getSearchQuery() {
    return searchQuery;
}

@CheckForNull
public String getSearchQueryToSql() {
    return searchQueryToSql;
}

@CheckForNull
public String getSearchQueryToSqlLowercase() {
    return searchQueryToSqlLowercase;
}

public int getPageSize() {
    return pageSize;
}

public int getPageOffset() {
    return pageOffset;
}

public static Builder builder() {
    return new Builder();
}

public static class Builder {
    private String permission;
    private String organizationUuid;
    private String componentUuid;
    private String template;
    private String searchQuery;
}

```

```

private boolean withAtLeastOnePermission;

private Integer pageIndex;
private Integer pageSize;

private Builder() {
    // enforce method constructor
}

public Builder setPermission(@Nullable String permission) {
    this.withAtLeastOnePermission = permission != null;
    this.permission = permission;
    return this;
}

public Builder setTemplate(@Nullable String template) {
    this.template = template;
    return this;
}

public Builder setComponentUuid(@Nullable String componentUuid) {
    this.componentUuid = componentUuid;
    return this;
}

public Builder setOrganizationUuid(String organizationUuid) {
    this.organizationUuid = organizationUuid;
    return this;
}

public Builder setSearchQuery(@Nullable String s) {
    this.searchQuery = defaultIfBlank(s, null);
    return this;
}

public Builder setPageIndex(@Nullable Integer i) {
    this.pageIndex = i;
    return this;
}

public Builder setPageSize(@Nullable Integer i) {
    this.pageSize = i;
    return this;
}

public Builder withAtLeastOnePermission() {
    this.withAtLeastOnePermission = true;
    return this;
}

```

```

    }

    public PermissionQuery build() {
        requireNonNull(organizationUuid, "Organization UUID cannot be null");
        this.pageIndex = firstNonNull(pageIndex, DEFAULT_PAGE_INDEX);
        this.pageSize = firstNonNull(pageSize, DEFAULT_PAGE_SIZE);
        checkArgument(searchQuery == null || searchQuery.length() >= SEARCH_QUERY_MIN_LENGTH, "Search
query should contains at least %s characters", SEARCH_QUERY_MIN_LENGTH);
        return new PermissionQuery(this);
    }
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import java.util.List;
import java.util.Optional;
import org.sonar.db.Dao;
import org.sonar.db.DbSession;

import static com.google.common.base.Preconditions.checkArgument;
import static java.util.Collections.emptyList;
import static java.util.Objects.requireNonNull;

public class PermissionTemplateCharacteristicDao implements Dao {

    public List<PermissionTemplateCharacteristicDto> selectByTemplateIds(DbSession dbSession, List<Long>
templateIds) {
        return templateIds.isEmpty() ? emptyList() : mapper(dbSession).selectByTemplateIds(templateIds);
    }
}

```

```

public Optional<PermissionTemplateCharacteristicDto> selectByPermissionAndTemplateId(DbSession dbSession,
String permission, long templateId) {
    PermissionTemplateCharacteristicDto dto = mapper(dbSession).selectByPermissionAndTemplateId(permission,
templateId);
    return Optional.ofNullable(dto);
}

```

```

public PermissionTemplateCharacteristicDto insert(DbSession dbSession, PermissionTemplateCharacteristicDto
dto) {
    checkArgument(dto.getCreatedAt() != 0L && dto.getUpdatedAt() != 0L);
    mapper(dbSession).insert(dto);
    return dto;
}

```

```

public PermissionTemplateCharacteristicDto update(DbSession dbSession, PermissionTemplateCharacteristicDto
templatePermissionDto) {
    requireNonNull(templatePermissionDto.getId());
    mapper(dbSession).update(templatePermissionDto);
    return templatePermissionDto;
}

```

```

private static PermissionTemplateCharacteristicMapper mapper(DbSession dbSession) {
    return dbSession.getMapper(PermissionTemplateCharacteristicMapper.class);
}
}

```

```

/*

```

```

* SonarQube

```

```

* Copyright (C) 2009-2018 SonarSource SA

```

```

* mailto:info AT sonarsource DOT com

```

```

*

```

```

* This program is free software; you can redistribute it and/or

```

```

* modify it under the terms of the GNU Lesser General Public

```

```

* License as published by the Free Software Foundation; either

```

```

* version 3 of the License, or (at your option) any later version.

```

```

*

```

```

* This program is distributed in the hope that it will be useful,

```

```

* but WITHOUT ANY WARRANTY; without even the implied warranty of

```

```

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

```

```

* Lesser General Public License for more details.

```

```

*

```

```

* You should have received a copy of the GNU Lesser General Public License

```

```

* along with this program; if not, write to the Free Software Foundation,

```

```

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

```

*/

```

```

package org.sonar.server.permission.ws;

```

```

import org.junit.Test;

```

```

import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.server.ws.WebService.SelectionMode;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.issue.ws.AvatarResolverImpl;

import static java.lang.String.format;
import static org.apache.commons.lang.StringUtils.countMatches;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonar.db.user.UserTesting.newUserDto;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class UsersActionTest extends BasePermissionWsTest<UsersAction> {

    @Override
    protected UsersAction buildWsAction() {
        return new UsersAction(db.getDbClient(), userSession, new PermissionWsSupport(), new AvatarResolverImpl());
    }

    @Test
    public void search_for_users_with_response_example() {
        UserDto user1 =
            db.users().insertUser(new UserDto().setLogin("admin").setName("Administrator").setEmail("admin@admin.com"));
        db.organizations().addMember(db.getDefaultOrganization(), user1);
        UserDto user2 = db.users().insertUser(new UserDto().setLogin("george.orwell").setName("George

```



```

Orwell").setEmail("george.orwell@1984.net"));
db.organizations().addMember(db.getDefaultOrganization(), user2);
db.users().insertPermissionOnUser(user1, ADMINISTER_QUALITY_PROFILES);
db.users().insertPermissionOnUser(user1, ADMINISTER);
db.users().insertPermissionOnUser(user1, ADMINISTER_QUALITY_GATES);
db.users().insertPermissionOnUser(user2, SCAN);

loginAsAdmin(db.getDefaultOrganization());
String result = newRequest().execute().getInput();

assertJson(result).withStrictArrayOrder().isSimilarTo(getClass().getResource("users-example.json"));
}

@Test
public void search_for_users_with_one_permission() {
insertUsersHavingGlobalPermissions();

loginAsAdmin(db.getDefaultOrganization());
String result = newRequest().setParam("permission", "scan").execute().getInput();

assertJson(result).withStrictArrayOrder().isSimilarTo(getClass().getResource("UsersActionTest/users.json"));
}

@Test
public void search_for_users_with_permission_on_project() {
// User has permission on project
ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.getDefaultOrganization()));
UserDto user = db.users().insertUser(newUserDto());
db.organizations().addMember(db.getDefaultOrganization(), user);
db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);

// User has permission on another project
ComponentDto anotherProject =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.getDefaultOrganization()));
UserDto userHavePermissionOnAnotherProject = db.users().insertUser(newUserDto());
db.organizations().addMember(db.getDefaultOrganization(), userHavePermissionOnAnotherProject);
db.users().insertProjectPermissionOnUser(userHavePermissionOnAnotherProject, ISSUE_ADMIN,
anotherProject);

// User has no permission
UserDto withoutPermission = db.users().insertUser(newUserDto());
db.organizations().addMember(db.getDefaultOrganization(), withoutPermission);

userSession.logIn().addProjectPermission(SYSTEM_ADMIN, project);
String result = newRequest()
.setParam(PARAM_PERMISSION, ISSUE_ADMIN)
.setParam(PARAM_PROJECT_ID, project.uuid())

```

```

        .execute()
        .getInput();

    assertThat(result).contains(user.getLogin())
        .doesNotContain(userHavePermissionOnAnotherProject.getLogin())
        .doesNotContain(withoutPermission.getLogin());
}

@Test
public void search_only_for_users_with_permission_when_no_search_query() {
    // User have permission on project
    ComponentDto project = db.components().insertPrivateProject();
    UserDto user = db.users().insertUser();
    db.organizations().addMember(db.getDefaultOrganization(), user);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);

    // User has no permission
    UserDto withoutPermission = db.users().insertUser();
    db.organizations().addMember(db.getDefaultOrganization(), withoutPermission);

    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest()
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .execute()
        .getInput();

    assertThat(result)
        .contains(user.getLogin())
        .doesNotContain(withoutPermission.getLogin());
}

@Test
public void search_also_for_users_without_permission_when_filtering_name() {
    // User with permission on project
    ComponentDto project =
    db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));
    UserDto user = db.users().insertUser(newUserDto("with-permission-login", "with-permission-name", "with-
    permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), user);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);

    // User without permission
    UserDto withoutPermission = db.users().insertUser(newUserDto("without-permission-login", "without-
    permission-name", "without-permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), withoutPermission);
    UserDto anotherUser = db.users().insertUser(newUserDto("another-user", "another-user", "another-user"));
    db.organizations().addMember(db.getDefaultOrganization(), anotherUser);

```

```

loginAsAdmin(db.getDefaultOrganization());
String result = newRequest()
    .setParam(PARAM_PROJECT_ID, project.uuid())
    .setParam(TEXT_QUERY, "with")
    .execute()
    .getInput();

assertThat(result).contains(user.getLogin(),
withoutPermission.getLogin()).doesNotContain(anotherUser.getLogin());
}

@Test
public void search_also_for_users_without_permission_when_filtering_email() {
    // User with permission on project
    ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));
    UserDto user = db.users().insertUser(newUserDto("with-permission-login", "with-permission-name", "with-
permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), user);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);

    // User without permission
    UserDto withoutPermission = db.users().insertUser(newUserDto("without-permission-login", "without-
permission-name", "without-permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), withoutPermission);
    UserDto anotherUser = db.users().insertUser(newUserDto("another-user", "another-user", "another-user"));
    db.organizations().addMember(db.getDefaultOrganization(), anotherUser);

    loginAsAdmin(db.getDefaultOrganization());
    String result = newRequest().setParam(PARAM_PROJECT_ID, project.uuid()).setParam(TEXT_QUERY,
"email").execute().getInput();

    assertThat(result).contains(user.getLogin(),
withoutPermission.getLogin()).doesNotContain(anotherUser.getLogin());
}

@Test
public void search_also_for_users_without_permission_when_filtering_login() {
    // User with permission on project
    ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));
    UserDto user = db.users().insertUser(newUserDto("with-permission-login", "with-permission-name", "with-
permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), user);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);

    // User without permission
    UserDto withoutPermission = db.users().insertUser(newUserDto("without-permission-login", "without-

```

```

permission-name", "without-permission-email"));
    db.organizations().addMember(db.getDefaultOrganization(), withoutPermission);
    UserDto anotherUser = db.users().insertUser(new UserDto("another-user", "another-user", "another-user"));
    db.organizations().addMember(db.getDefaultOrganization(), anotherUser);

    loginAsAdmin(db.getDefaultOrganization());
    String result = new Request().setParam(PARAM_PROJECT_ID, project.uuid()).setParam(TEXT_QUERY,
"login").execute().getInput();

    assertThat(result).contains(user.getLogin(),
withoutPermission.getLogin()).doesNotContain(anotherUser.getLogin());
}

@Test
public void search_for_users_with_query_as_a_parameter() {
    insertUsersHavingGlobalPermissions();

    loginAsAdmin(db.getDefaultOrganization());
    String result = new Request()
        .setParam("permission", "scan")
        .setParam(TEXT_QUERY, "ame-1")
        .execute()
        .getInput();

    assertThat(result).contains("login-1")
        .doesNotContain("login-2")
        .doesNotContain("login-3");
}

@Test
public void search_for_users_with_select_as_a_parameter() {
    insertUsersHavingGlobalPermissions();

    loginAsAdmin(db.getDefaultOrganization());
    String result = new Request()
        .execute()
        .getInput();

    assertThat(result).contains("login-1", "login-2", "login-3");
}

@Test
public void search_for_users_is_paginated() {
    for (int i = 9; i >= 0; i--) {
        UserDto user = db.users().insertUser(new UserDto().setName("user-" + i));
        db.organizations().addMember(db.getDefaultOrganization(), user);
        db.users().insertPermissionOnUser(user, ADMINISTER);
        db.users().insertPermissionOnUser(user, ADMINISTER_QUALITY_GATES);
    }
}

```

```

    }
    loginAsAdmin(db.getDefaultOrganization());

    assertJson(newRequest().setParam(PAGE, "1").setParam(PAGE_SIZE,
"2").execute().getInput()).withStrictArrayOrder().isSimilarTo("{\n" +
    "  \"paging\": {\n" +
    "    \"pageIndex\": 1,\n" +
    "    \"pageSize\": 2,\n" +
    "    \"total\": 10\n" +
    "  },\n" +
    "  \"users\": [\n" +
    "    {\n" +
    "      \"name\": \"user-0\"\n" +
    "    },\n" +
    "    {\n" +
    "      \"name\": \"user-1\"\n" +
    "    }\n" +
    "  ]\n" +
    "}");

    assertJson(newRequest().setParam(PAGE, "3").setParam(PAGE_SIZE,
"4").execute().getInput()).withStrictArrayOrder().isSimilarTo("{\n" +
    "  \"paging\": {\n" +
    "    \"pageIndex\": 3,\n" +
    "    \"pageSize\": 4,\n" +
    "    \"total\": 10\n" +
    "  },\n" +
    "  \"users\": [\n" +
    "    {\n" +
    "      \"name\": \"user-8\"\n" +
    "    },\n" +
    "    {\n" +
    "      \"name\": \"user-9\"\n" +
    "    }\n" +
    "  ]\n" +
    "}");
  }

@Test
public void return_more_than_20_permissions() {
  loginAsAdmin(db.getDefaultOrganization());
  for (int i = 0; i < 30; i++) {
    UserDto user = db.users().insertUser(new UserDto().setLogin("user-" + i));
    db.organizations().addMember(db.getDefaultOrganization(), user);
    db.users().insertPermissionOnUser(user, SCAN);
    db.users().insertPermissionOnUser(user, PROVISION_PROJECTS);
  }

  String result = newRequest()

```

```

        .setParam(PAGE_SIZE, "100")
        .execute()
        .getInput();

    assertThat(countMatches(result, "scan")).isEqualTo(30);
}

@Test
public void fail_if_project_permission_without_project() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ISSUE_ADMIN)
        .setParam(Param.SELECTED, SelectionMode.ALL.value())
        .execute();
}

@Test
public void fail_if_insufficient_privileges() {
    userSession.login("login");

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam("permission", SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_if_not_logged_in() {
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest()
        .setParam("permission", SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_if_project_uuid_and_project_key_are_provided() {
    db.components().insertComponent(new PrivateProjectDto(db.organizations().insert(), "project-
    uuid").setDbKey("project-key"));
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
}

```

```

expectedException.expectMessage("Project id or project key can be provided, not both.");

newRequest()
    .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
    .setParam(PARAM_PROJECT_ID, "project-uuid")
    .setParam(PARAM_PROJECT_KEY, "project-key")
    .execute();
}

@Test
public void fail_if_search_query_is_too_short() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("'q' length (2) is shorter than the minimum authorized (3)");

    newRequest().setParam(TEXT_QUERY, "ab").execute();
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = db.users().insertUser(newUserDto());
    ComponentDto project = db.components().insertMainBranch(organization);
    ComponentDto branch = db.components().insertProjectBranch(project);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_using_branch_uuid() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = db.users().insertUser(newUserDto());
    ComponentDto project = db.components().insertMainBranch(organization);
    ComponentDto branch = db.components().insertProjectBranch(project);
    db.users().insertProjectPermissionOnUser(user, ISSUE_ADMIN, project);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
}

```

```

expectedException.expect(NotFoundException.class);
expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

newRequest()
    .setParam(PARAM_ORGANIZATION, organization.getKey())
    .setParam(PARAM_PROJECT_ID, branch.uuid())
    .setParam(PARAM_USER_LOGIN, user.getLogin())
    .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
    .execute();
}

private void insertUsersHavingGlobalPermissions() {
    UserDto user1 = db.users().insertUser(newUserDto("login-1", "name-1", "email-1"));
    db.organizations().addMember(db.getDefaultOrganization(), user1);
    UserDto user2 = db.users().insertUser(newUserDto("login-2", "name-2", "email-2"));
    db.organizations().addMember(db.getDefaultOrganization(), user2);
    UserDto user3 = db.users().insertUser(newUserDto("login-3", "name-3", "email-3"));
    db.organizations().addMember(db.getDefaultOrganization(), user3);
    db.users().insertPermissionOnUser(user1, SCAN);
    db.users().insertPermissionOnUser(user2, SCAN);
    db.users().insertPermissionOnUser(user3, ADMINISTER);
}

}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;

```



```

import org.sonar.api.utils.System2;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDao;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class RemoveProjectCreatorFromTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport wsSupport;
    private final UserSession userSession;
    private final System2 system;

    public RemoveProjectCreatorFromTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport,
        UserSession userSession, System2 system) {
        this.dbClient = dbClient;
        this.wsSupport = wsSupport;
        this.userSession = userSession;
        this.system = system;
    }

    private static RemoveProjectCreatorFromTemplateRequest toWsRequest(Request request) {
        RemoveProjectCreatorFromTemplateRequest wsRequest =
            RemoveProjectCreatorFromTemplateRequest.builder()
                .setPermission(request.mandatoryParam(PARAM_PERMISSION))
                .setTemplateId(request.param(PARAM_TEMPLATE_ID))
                .setOrganization(request.param(PARAM_ORGANIZATION))
                .setTemplateName(request.param(PARAM_TEMPLATE_NAME))
                .build();
        validateProjectPermission(wsRequest.getPermission());
        return wsRequest;
    }
}

```

```

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("remove_project_creator_from_template")
        .setDescription("Remove a project creator from a permission template.<br>" +
            "Requires the following permission: 'Administer System'.")
        .setSince("6.0")
        .setPost(true)
        .setHandler(this);

    createTemplateParameters(action);
    createProjectPermissionParameter(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    doHandle(toWsRequest(request));
    response.noContent();
}

private void doHandle(RemoveProjectCreatorFromTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, WsTemplateRef.newTemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName()));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        PermissionTemplateCharacteristicDao dao = dbClient.permissionTemplateCharacteristicDao();
        dao.selectByPermissionAndTemplateId(dbSession, request.getPermission(), template.getId())
            .ifPresent(permissionTemplateCharacteristicDto -> updateTemplateCharacteristic(dbSession,
                permissionTemplateCharacteristicDto));
    }
}

private void updateTemplateCharacteristic(DbSession dbSession, PermissionTemplateCharacteristicDto
    templatePermission) {
    PermissionTemplateCharacteristicDto targetTemplatePermission = templatePermission
        .setUpdatedAt(system.now())
        .setWithProjectCreator(false);
    dbClient.permissionTemplateCharacteristicDao().update(dbSession, targetTemplatePermission);
    dbSession.commit();
}

private static class RemoveProjectCreatorFromTemplateRequest {
    private final String templateId;
    private final String organization;
    private final String templateName;
    private final String permission;
}

```

```

private RemoveProjectCreatorFromTemplateRequest(Builder builder) {
    this.templateId = builder.templateId;
    this.organization = builder.organization;
    this.templateName = builder.templateName;
    this.permission = requireNonNull(builder.permission);
}

@CheckForNull
public String getTemplateId() {
    return templateId;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public String getPermission() {
    return permission;
}

public static Builder builder() {
    return new Builder();
}

public static class Builder {
    private String templateId;
    private String organization;
    private String templateName;
    private String permission;

    private Builder() {
        // enforce method constructor
    }

    public Builder setTemplateId(@Nullable String templateId) {
        this.templateId = templateId;
        return this;
    }

    public Builder setOrganization(@Nullable String s) {
        this.organization = s;
    }
}

```

```

    return this;
}

public Builder setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}

public Builder setPermission(@Nullable String permission) {
    this.permission = permission;
    return this;
}

public RemoveProjectCreatorFromTemplateRequest build() {
    return new RemoveProjectCreatorFromTemplateRequest(this);
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Collections;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.PermissionTemplateService;

```

```

import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.ProjectWsRef.newWsProjectRef;
import static org.sonar.server.permission.ws.template.WsTemplateRef.newTemplateRef;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class ApplyTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionTemplateService permissionTemplateService;
    private final PermissionWsSupport wsSupport;

    public ApplyTemplateAction(DbClient dbClient, UserSession userSession, PermissionTemplateService
permissionTemplateService,
    PermissionWsSupport wsSupport) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.permissionTemplateService = permissionTemplateService;
        this.wsSupport = wsSupport;
    }

    private static ApplyTemplateRequest toApplyTemplateWsRequest(Request request) {
        return new ApplyTemplateRequest()
            .setProjectId(request.param(PARAM_PROJECT_ID))
            .setProjectKey(request.param(PARAM_PROJECT_KEY))
            .setTemplateId(request.param(PARAM_TEMPLATE_ID))
            .setTemplateName(request.param(PARAM_TEMPLATE_NAME))
            .setOrganization(request.param(PARAM_ORGANIZATION));
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction("apply_template")
            .setDescription("Apply a permission template to one project.<br>" +
                "The project id or project key must be provided.<br>" +
                "The template id or name must be provided.<br>" +

```

```

        "Requires the following permission: 'Administer System'.")
        .setPost(true)
        .setSince("5.2")
        .setHandler(this);

createTemplateParameters(action);
createProjectParameters(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    doHandle(toApplyTemplateWsRequest(request));
    response.noContent();
}

private void doHandle(ApplyTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, new TemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName()));

        ComponentDto project = wsSupport.getRootComponentOrModule(dbSession,
            new WsProjectRef(request.getProjectId(), request.getProjectKey()));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        permissionTemplateService.applyAndCommit(dbSession, template, Collections.singletonList(project));
    }
}

private static class ApplyTemplateRequest {
    private String projectId;
    private String projectKey;
    private String templateId;
    private String organization;
    private String templateName;

    @CheckForNull
    public String getProjectId() {
        return projectId;
    }

    public ApplyTemplateRequest setProjectId(@Nullable String projectId) {
        this.projectId = projectId;
        return this;
    }

    @CheckForNull
    public String getProjectKey() {
        return projectKey;
    }
}

```

```

}

public ApplyTemplateRequest setProjectKey(@Nullable String projectKey) {
    this.projectKey = projectKey;
    return this;
}

@CheckForNull
public String getTemplateId() {
    return templateId;
}

public ApplyTemplateRequest setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public ApplyTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public ApplyTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}
}
}
}

```

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>
 Everyone is permitted to copy and distribute verbatim copies
 of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates
 the terms and conditions of version 3 of the GNU General Public
 License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

d) Do one of the following:

- 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
- b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version

published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data

and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
- b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
- d) Do one of the following:

- 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

- 1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

- e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.

b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

```
[
  {
    "key": "plugin.licenseHash.secured",
    "value": "987654321"
  },
  {
    "key": "foo",
    "value": "one"
  },
  {
    "key": "plugin.license.secured",
    "value": "ABCD"
  },
  {
    "key": "commercial.plugin",
    "value": "ABCD"
  }
]
```

```
]
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;
```

```
public class CountByTemplateAndPermissionDto {
    private long templateId;
    private String permission;
    private int count;

    public long getTemplateId() {
        return templateId;
    }

    public void setTemplateId(long templateId) {
        this.templateId = templateId;
    }

    public String getPermission() {
        return permission;
    }

    public void setPermission(String permission) {
        this.permission = permission;
    }

    public int getCount() {
        return count;
    }

    public void setCount(int count) {
```

```
    this.count = count;
  }
}
```

Apache Lucene

Copyright 2014 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

Includes software from other Apache Software Foundation projects,
including, but not limited to:

- Apache Ant
- Apache Jakarta Regexp
- Apache Commons
- Apache Xerces

ICU4J, (under analysis/icu) is licensed under an MIT styles license
and Copyright (c) 1995-2008 International Business Machines Corporation and others

Some data files (under analysis/icu/src/data) are derived from Unicode data such
as the Unicode Character Database. See <http://unicode.org/copyright.html> for more
details.

Brics Automaton (under core/src/java/org/apache/lucene/util/automaton) is
BSD-licensed, created by Anders Mller. See <http://www.brics.dk/automaton/>

The levenshtein automata tables (under core/src/java/org/apache/lucene/util/automaton) were
automatically generated with the moman/finenight FSA library, created by
Jean-Philippe Barrette-LaPierre. This library is available under an MIT license,
see <http://sites.google.com/site/rrettesite/moman> and
<http://bitbucket.org/jpbarrette/moman/overview/>

The class org.apache.lucene.util.WeakIdentityMap was derived from
the Apache CXF project and is Apache License 2.0.

The Google Code Prettify is Apache License 2.0.
See <http://code.google.com/p/google-code-prettify/>

JUnit (junit-4.10) is licensed under the Common Public License v. 1.0
See <http://junit.sourceforge.net/cpl-v10.html>

This product includes code (JaspellTernarySearchTrie) from Java Spelling Checkin
g Package (jaspell): <http://jaspell.sourceforge.net/>
License: The BSD License (<http://www.opensource.org/licenses/bsd-license.php>)

The snowball stemmers in
analysis/common/src/java/net/sf/snowball
were developed by Martin Porter and Richard Boulton.

The snowball stopword lists in
analysis/common/src/resources/org/apache/lucene/analysis/snowball
were developed by Martin Porter and Richard Boulton.
The full snowball package is available from
<http://snowball.tartarus.org/>

The KStem stemmer in
analysis/common/src/org/apache/lucene/analysis/en
was developed by Bob Krovetz and Sergio Guzman-Lara (CIIR-UMass Amherst)
under the BSD-license.

The Arabic,Persian,Romanian,Bulgarian, and Hindi analyzers (common) come with a default
stopword list that is BSD-licensed created by Jacques Savoy. These files reside in:
analysis/common/src/resources/org/apache/lucene/analysis/ar/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/fa/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/ro/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/bg/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/hi/stopwords.txt
See <http://members.unine.ch/jacques.savoy/clef/index.html>.

The German,Spanish,Finnish,French,Hungarian,Italian,Portuguese,Russian and Swedish light stemmers
(common) are based on BSD-licensed reference implementations created by Jacques Savoy and
Ljiljana Dolamic. These files reside in:
analysis/common/src/java/org/apache/lucene/analysis/de/GermanLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/de/GermanMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/es/SpanishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fi/FinnishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/it/ItalianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java

The Stempel analyzer (stempel) includes BSD-licensed software developed
by the Egothor project <http://egothor.sf.net/>, created by Leo Galambos, Martin Kvapil,
and Edmond Nolan.

The Polish analyzer (stempel) comes with a default
stopword list that is BSD-licensed created by the Carrot2 project. The file resides
in stempel/src/resources/org/apache/lucene/analysis/pl/stopwords.txt.
See <http://project.carrot2.org/license.html>.

The SmartChineseAnalyzer source code (smartcn) was
provided by Xiaoping Gao and copyright 2009 by www.imdict.net.

WordBreakTestUnicode_*.java (under modules/analysis/common/src/test/)

is derived from Unicode data such as the Unicode Character Database.
See <http://unicode.org/copyright.html> for more details.

The Morfologik analyzer (morfologik) includes BSD-licensed software developed by Dawid Weiss and Marcin Mikowski (<http://morfologik.blogspot.com/>).

Morfologik uses data from Polish ispell/myspell dictionary (<http://www.sjp.pl/slownik/en/>) licenced on the terms of (inter alia) LGPL and Creative Commons ShareAlike.

Morfologic includes data from BSD-licensed dictionary of Polish (SGJP) (<http://sgjp.pl/morfeusz/>)

Servlet-api.jar and javax.servlet-*.jar are under the CDDL license, the original source code for this can be found at <http://www.eclipse.org/jetty/downloads.php>

Kuromoji Japanese Morphological Analyzer - Apache Lucene Integration

This software includes a binary and/or source version of data from

mecab-ipadic-2.7.0-20070801

which can be obtained from

<http://atilika.com/releases/mecab-ipadic/mecab-ipadic-2.7.0-20070801.tar.gz>

or

<http://jaist.dl.sourceforge.net/project/mecab/mecab-ipadic/2.7.0-20070801/mecab-ipadic-2.7.0-20070801.tar.gz>

mecab-ipadic-2.7.0-20070801 Notice

Nara Institute of Science and Technology (NAIST), the copyright holders, disclaims all warranties with regard to this software, including all implied warranties of merchantability and fitness, in no event shall NAIST be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortuous action, arising out of or in connection with the use or performance of this software.

A large portion of the dictionary entries originate from ICOT Free Software. The following conditions for ICOT Free Software applies to the current dictionary as well.

Each User may also freely distribute the Program, whether in its original form or modified, to any third party or parties, PROVIDED that the provisions of Section 3 ("NO WARRANTY") will ALWAYS appear on, or be attached to, the Program, which is distributed substantially in the same form as set out herein and that such intended distribution, if actually made, will neither violate or otherwise contravene any of the laws and regulations of the countries having jurisdiction over the User or the intended distribution itself.

NO WARRANTY

The program was produced on an experimental basis in the course of the research and development conducted during the project and is provided to users as so produced on an experimental basis. Accordingly, the program is provided without any warranty whatsoever, whether express, implied, statutory or otherwise. The term "warranty" used herein includes, but is not limited to, any warranty of the quality, performance, merchantability and fitness for a particular purpose of the program and the nonexistence of any infringement or violation of any right of any third party.

Each user of the program will agree and understand, and be deemed to have agreed and understood, that there is no warranty whatsoever for the program and, accordingly, the entire risk arising from or otherwise connected with the program is assumed by the user.

Therefore, neither ICOT, the copyright holder, or any other organization that participated in or was otherwise related to the development of the program and their respective officials, directors, officers and other employees shall be held liable for any and all damages, including, without limitation, general, special, incidental and consequential damages, arising out of or otherwise in connection with the use or inability to use the program or any product, material or result produced or otherwise obtained by using the program, regardless of whether they have been advised of, or otherwise had knowledge of, the possibility of such damages at any time during the project or thereafter. Each user will be deemed to have agreed to the foregoing by his or her commencement of use of the program. The term "use" as used herein includes, but is not limited to, the use, modification, copying and distribution of the program and the production of secondary products from the program.

In the case where the program, whether in its original form or modified, was distributed or delivered to or received by a user from any person, organization or entity other than ICOT, unless it makes or grants independently of ICOT any specific warranty to the user in writing, such person, organization or entity, will also be exempted

from and not be held liable to the user for any such damages as noted above as far as the program is concerned.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

import * as React from 'react';

import { FormattedMessage } from 'react-intl';

import Tooltip from '../components/controls/Tooltip';

import { translate } from '../helpers/l10n';

interface Props {

license?: string;

}

export default function PluginLicense({ license }: Props) {

if (!license) {

return null;

}

return (

<Tooltip overlay={license}>

<li className="little-spacer-bottom marketplace-plugin-license">

<FormattedMessage

defaultMessage={translate('marketplace.licensed_under_x')}

id="marketplace.licensed_under_x"

values={{

license: {license}

}}>

/>

</Tooltip>

);

}

```

[
  {
    "key": "foo",
    "value": "1",
    "values": [
      "1"
    ]
  },
  {
    "key": "foo.1.key",
    "value": "key1"
  },
  {
    "key": "foo.1.plugin.license.secured",
    "value": "ABCD"
  },
  {
    "key": "foo.1.secret.secured",
    "value": "123456"
  }
]
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Test;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.organization.OrganizationDto;

```

```

import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class AddUserToTemplateActionTest extends BasePermissionWsTest<AddUserToTemplateAction> {

    private UserDto user;
    private PermissionTemplateDto permissionTemplate;

    @Override
    protected AddUserToTemplateAction buildWsAction() {
        return new AddUserToTemplateAction(db.getDbClient(), newPermissionWsSupport(), userSession);
    }

    @Before
    public void setUp() {
        user = db.users().insertUser("user-login");
        db.organizations().addMember(db.getDefaultOrganization(), user);
        permissionTemplate = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
    }

    @Test
    public void add_user_to_template() throws Exception {
        loginAsAdmin(db.getDefaultOrganization());

        newRequest(user.getLogin(), permissionTemplate.getUuid(), CODEVIEWER);

        assertThat(getLoginsInTemplateAndPermission(permissionTemplate,
            CODEVIEWER)).containsExactly(user.getLogin());
    }

    @Test
    public void add_user_to_template_by_name() {
        loginAsAdmin(db.getDefaultOrganization());
    }
}

```

```

newRequest()
    .setParam(PARAM_USER_LOGIN, user.getLogin())
    .setParam(PARAM_PERMISSION, CODEVIEWER)
    .setParam(PARAM_TEMPLATE_NAME, permissionTemplate.getName().toUpperCase())
    .execute();

    assertThat(getLoginsInTemplateAndPermission(permissionTemplate,
CODEVIEWER)).containsExactly(user.getLogin());
}

@Test
public void add_user_to_template_by_name_and_organization() {
    OrganizationDto organizationDto = db.organizations().insert();
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate(organizationDto);
    addUserAsMemberOfOrganization(organizationDto);
    loginAsAdmin(organizationDto);

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .setParam(PARAM_TEMPLATE_NAME, permissionTemplate.getName().toUpperCase())
        .setParam(PARAM_ORGANIZATION, organizationDto.getKey())
        .execute();

    assertThat(getLoginsInTemplateAndPermission(permissionTemplate,
CODEVIEWER)).containsExactly(user.getLogin());
}

@Test
public void does_not_add_a_user_twice() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest(user.getLogin(), permissionTemplate.getUuid(), ISSUE_ADMIN);
    newRequest(user.getLogin(), permissionTemplate.getUuid(), ISSUE_ADMIN);

    assertThat(getLoginsInTemplateAndPermission(permissionTemplate,
ISSUE_ADMIN)).containsExactly(user.getLogin());
}

@Test
public void fail_if_not_a_project_permission() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(user.getLogin(), permissionTemplate.getUuid(), GlobalPermissions.PROVISIONING);
}

```

```

@Test
public void fail_if_not_admin_of_default_organization() throws Exception {
    userSession.login().addPermission(ADMINISTER_QUALITY_PROFILES, db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    newRequest(user.getLogin(), permissionTemplate.getUuid(), CODEVIEWER);
}

```

```

@Test
public void fail_if_user_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(null, permissionTemplate.getUuid(), CODEVIEWER);
}

```

```

@Test
public void fail_if_permission_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(user.getLogin(), permissionTemplate.getUuid(), null);
}

```

```

@Test
public void fail_if_template_uuid_and_name_are_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(user.getLogin(), null, CODEVIEWER);
}

```

```

@Test
public void fail_if_user_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("User with login 'unknown-login' is not found");

    newRequest("unknown-login", permissionTemplate.getUuid(), CODEVIEWER);
}

```

```

@Test

```



```

public void fail_if_template_key_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-key' is not found");

    newRequest(user.getLogin(), "unknown-key", CODEVIEWER);
}

@Test
public void fail_if_organization_does_not_exist() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("No organization with key 'Unknown'");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .setParam(PARAM_TEMPLATE_NAME, permissionTemplate.getName().toUpperCase())
        .setParam(PARAM_ORGANIZATION, "Unknown")
        .execute(); }

@Test
public void fail_to_add_permission_when_user_is_not_member_of_given_organization() {
    // User is not member of given organization
    OrganizationDto otherOrganization = db.organizations().insert();
    addUserAsMemberOfOrganization(otherOrganization);
    OrganizationDto organization = db.organizations().insert(organizationDto ->
organizationDto.setKey("Organization key"));
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate(organization);
    loginAsAdmin(organization);

    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("User 'user-login' is not member of organization 'Organization key'");

    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .setParam(PARAM_TEMPLATE_NAME, permissionTemplate.getName().toUpperCase())
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .execute();
}

private void newRequest(@Nullable String userLogin, @Nullable String templateKey, @Nullable String
permission) {
    TestRequest request = newRequest();
    if (userLogin != null) {

```

```

    request.setParam(PARAM_USER_LOGIN, userLogin);
  }
  if (templateKey != null) {
    request.setParam(org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID,
templateKey);
  }
  if (permission != null) {
    request.setParam(PARAM_PERMISSION, permission);
  }

  request.execute();
}

private List<String> getLoginsInTemplateAndPermission(PermissionTemplateDto template, String permission) {
  PermissionQuery permissionQuery =
PermissionQuery.builder().setOrganizationUuid(template.getOrganizationUuid()).setPermission(permission).build()
;
  return db.getDbClient().permissionTemplateDao()
    .selectUserLoginsByQueryAndTemplate(db.getSession(), permissionQuery, template.getId());
}

private void addUserAsMemberOfOrganization(OrganizationDto organization) {
  db.organizations().addMember(organization, user);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import PropTypes from 'prop-types';
import Home from './Home';
import Template from './Template';

```

```

import OrganizationHelmet from '.././././components/common/OrganizationHelmet';
import Suggestions from '.././././app/components/embed-docs-modal/Suggestions';
import { getPermissionTemplates } from '.././././api/permissions';
import { sortPermissions, mergePermissionsToTemplates, mergeDefaultsToTemplates } from '../././utils';
import { translate } from '../././helpers/l10n';
import '../././permissions/styles.css';

export default class App extends React.PureComponent {
  static propTypes = {
    location: PropTypes.object.isRequired,
    organization: PropTypes.object,
    topQualifiers: PropTypes.array.isRequired
  };

  state = {
    ready: false,
    permissions: [],
    permissionTemplates: []
  };

  componentDidMount() {
    this.mounted = true;
    this.requestPermissions();
  }

  componentWillUnmount() {
    this.mounted = false;
  }

  requestPermissions = () => {
    const { organization } = this.props;
    const request = organization
      ? getPermissionTemplates(organization.key)
      : getPermissionTemplates();
    return request.then(r => {
      if (this.mounted) {
        const permissions = sortPermissions(r.permissions);
        const permissionTemplates = mergeDefaultsToTemplates(
          mergePermissionsToTemplates(r.permissionTemplates, permissions),
          r.defaultTemplates
        );
        this.setState({
          ready: true,
          permissionTemplates,
          permissions
        });
      }
    });
  };
}

```

```

};

renderTemplate(id) {
  if (!this.state.ready) {
    return null;
  }

  const template = this.state.permissionTemplates.find(t => t.id === id);
  return (
    <Template
      organization={this.props.organization}
      template={template}
      refresh={this.requestPermissions}
      topQualifiers={this.props.topQualifiers}
    />
  );
}

renderHome() {
  return (
    <Home
      organization={this.props.organization}
      topQualifiers={this.props.topQualifiers}
      permissions={this.state.permissions}
      permissionTemplates={this.state.permissionTemplates}
      ready={this.state.ready}
      refresh={this.requestPermissions}
    />
  );
}

render() {
  const { id } = this.props.location.query;
  return (
    <div>
      <Suggestions suggestions="permission_templates" />
      <OrganizationHelmet
        title={translate('permission_templates.page')}
        organization={this.props.organization}
      />

      {id && this.renderTemplate(id)}
      {!id && this.renderHome()}
    </div>
  );
}
}

```

```
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonarqube.ws.client.permission;
```

```
public class PermissionsWsParameters {
    public static final String CONTROLLER = "api/permissions";

    public static final String PARAM_PERMISSION = "permission";
    public static final String PARAM_ORGANIZATION = "organization";
    public static final String PARAM_GROUP_NAME = "groupName";
    public static final String PARAM_GROUP_ID = "groupId";
    public static final String PARAM_PROJECT_ID = "projectId";
    public static final String PARAM_PROJECT_KEY = "projectKey";
    public static final String PARAM_USER_LOGIN = "login";
    public static final String PARAM_TEMPLATE_ID = "templateId";
    public static final String PARAM_TEMPLATE_NAME = "templateName";
    public static final String PARAM_ID = "id";
    public static final String PARAM_NAME = "name";
    public static final String PARAM_DESCRIPTION = "description";
    public static final String PARAM_PROJECT_KEY_PATTERN = "projectKeyPattern";
    public static final String PARAM_QUALIFIER = "qualifier";

    private PermissionsWsParameters() {
        // static utils only
    }
}
```

This bundle contains Java Service Wrapper scripts and binaries version 3.2.3 from Tanukisoftware published under the following license:

Copyright (c) 2001 Silver Egg Technology

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sub-license, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

<http://web.archive.org/web/20070622164715/wrapper.tanukisoftware.org/doc/english/license.html>

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.server.permission;

import java.util.Collections;

import org.junit.Rule;

import org.junit.Test;

import org.junit.rules.ExpectedException;

import org.sonar.server.exceptions.BadRequestException;

```

import static com.google.common.collect.Lists.newArrayList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.server.permission.ApplyPermissionTemplateQuery.create;

public class ApplyPermissionTemplateQueryTest {

    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    @Test
    public void should_populate_with_params() {
        ApplyPermissionTemplateQuery query = create("my_template_key", newArrayList("1", "2", "3"));

        assertThat(query.getTemplateUuid()).isEqualTo("my_template_key");
        assertThat(query.getComponentKeys()).containsOnly("1", "2", "3");
    }

    @Test
    public void should_invalidate_query_with_empty_name() {
        expectedException.expect(BadRequestException.class);
        expectedException.expectMessage("Permission template is mandatory");

        ApplyPermissionTemplateQuery.create("", newArrayList("1", "2", "3"));
    }

    @Test
    public void should_invalidate_query_with_no_components() {
        expectedException.expect(BadRequestException.class);
        expectedException.expectMessage("No project provided. Please provide at least one project.");

        ApplyPermissionTemplateQuery.create("my_template_key", Collections.emptyList());
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.

```

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import { PermissionType } from '../propTypes';
import { translate } from '../../helpers/110n';

export default class PermissionCell extends React.PureComponent {
  static propTypes = {
    permission: PermissionType.isRequired
  };

  render() {
    const { permission: p } = this.props;

    return (
      <td className="permission-column" data-permission={p.key}>
        <div className="permission-column-inner">
          <ul>
            {p.withProjectCreator && (
              <li className="little-spacer-bottom">
                {translate('permission_templates.project_creators')}
              </li>
            )}
            <li className="little-spacer-bottom">
              <strong>{p.usersCount}</strong>
              { ' user(s)'}
            </li>
            <li>
              <strong>{p.groupsCount}</strong>
              { ' group(s)'}
            </li>
          </ul>
        </div>
      </td>
    );
  }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either

```



```

* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.index;

import org.sonar.api.config.internal.MapSettings;
import org.sonar.server.es.IndexDefinition;
import org.sonar.server.es.IndexType;
import org.sonar.server.es.NewIndex;

import static org.sonar.server.es.NewIndex.SettingsConfiguration.MANUAL_REFRESH_INTERVAL;
import static org.sonar.server.es.NewIndex.SettingsConfiguration.newBuilder;

public class FooIndexDefinition implements IndexDefinition {

    public static final String FOO_INDEX = "foos";
    public static final String FOO_TYPE = "foo";
    public static final IndexType INDEX_TYPE_FOO = new IndexType(FOO_INDEX, FOO_TYPE);
    public static final String FIELD_NAME = "name";
    public static final String FIELD_PROJECT_UUID = "projectUuid";

    @Override
    public void define(IndexDefinitionContext context) {
        NewIndex index = context.create(FOO_INDEX, newBuilder(new
MapSettings().asConfig()).setRefreshInterval(MANUAL_REFRESH_INTERVAL).build());

        NewIndex.NewIndexType type = index.createType(FOO_TYPE)
            .requireProjectAuthorization();

        type.keywordFieldBuilder(FIELD_NAME).build();
        type.keywordFieldBuilder(FIELD_PROJECT_UUID).build();
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public

```

* License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.db.permission.template;
```

```
import java.util.List;
```

```
import org.apache.ibatis.annotations.Param;
```

```
public interface PermissionTemplateCharacteristicMapper {
```

```
    PermissionTemplateCharacteristicDto selectById(@Param("id") long id);
```

```
    List<PermissionTemplateCharacteristicDto> selectByTemplateIds(@Param("templateIds") List<Long>  
    templateId);
```

```
    PermissionTemplateCharacteristicDto selectByPermissionAndTemplateId(@Param("permission") String  
    permission, @Param("templateId") long templateId);
```

```
    void insert(PermissionTemplateCharacteristicDto templatePermissionDto);
```

```
    void update(PermissionTemplateCharacteristicDto templatePermissionDto);
```

```
    void deleteByTemplateId(long id);
```

```
    void deleteByTemplateIds(@Param("templateIds") List<Long> subList);
```

```
}
```

```
[
```

```
{
```

```
    "key": "foo",
```

```
    "value": "one"
```

```
}
```

```
]
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or
```

```
* modify it under the terms of the GNU Lesser General Public
```

```

* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package com.sonarsource.plugins.license.api;

```

```

public interface FooBar {
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

```

```

import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.UserId;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

```

```

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createUserLoginParameter;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class RemoveUserFromTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport wsSupport;
    private final UserSession userSession;

    public RemoveUserFromTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport, UserSession
userSession) {
        this.dbClient = dbClient;
        this.wsSupport = wsSupport;
        this.userSession = userSession;
    }

    private static RemoveUserFromTemplateRequest toRemoveUserFromTemplateWsRequest(Request request) {
        return new RemoveUserFromTemplateRequest()
            .setPermission(request.mandatoryParam(PARAM_PERMISSION))
            .setLogin(request.mandatoryParam(PARAM_USER_LOGIN))
            .setTemplateId(request.param(PARAM_TEMPLATE_ID))
            .setOrganization(request.param(PARAM_ORGANIZATION))
            .setTemplateName(request.param(PARAM_TEMPLATE_NAME));
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context
            .createAction("remove_user_from_template")
            .setPost(true)
            .setSince("5.2")
            .setDescription("Remove a user from a permission template.<br /> " +
                "Requires the following permission: 'Administer System'.")
            .setHandler(this);

        createTemplateParameters(action);
        createProjectPermissionParameter(action);
    }
}

```

```

    createUserLoginParameter(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    doHandle(toRemoveUserFromTemplateWsRequest(request));
    response.noContent();
}

private void doHandle(RemoveUserFromTemplateRequest request) {
    String permission = request.getPermission();
    String userLogin = request.getLogin();

    try (DbSession dbSession = dbClient.openSession(false)) {
        validateProjectPermission(permission);
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, WsTemplateRef.newTemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName()));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        UserId user = wsSupport.findUser(dbSession, userLogin);

        dbClient.permissionTemplateDao().deleteUserPermission(dbSession, template.getId(), user.getId(), permission);
        dbSession.commit();
    }
}

private static class RemoveUserFromTemplateRequest {
    private String login;
    private String permission;
    private String templateId;
    private String organization;
    private String templateName;

    public String getLogin() {
        return login;
    }

    public RemoveUserFromTemplateRequest setLogin(String login) {
        this.login = requireNonNull(login);
        return this;
    }

    public String getPermission() {
        return permission;
    }

    public RemoveUserFromTemplateRequest setPermission(String permission) {
        this.permission = requireNonNull(permission);
    }
}

```

```

    return this;
}

@CheckForNull
public String getTemplateId() {
    return templateId;
}

public RemoveUserFromTemplateRequest setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public RemoveUserFromTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public RemoveUserFromTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.

```

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.index;

import com.google.common.annotations.VisibleForTesting;
import java.util.Arrays;
import java.util.Collection;
import java.util.HashMap;
import java.util.List;
import java.util.Map;
import java.util.Set;
import java.util.stream.Collectors;
import java.util.stream.Stream;
import org.elasticsearch.action.index.IndexRequest;
import org.sonar.core.util.stream.MoreCollectors;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.es.EsQueueDto;
import org.sonar.server.es.BulkIndexer;
import org.sonar.server.es.BulkIndexer.Size;
import org.sonar.server.es.EsClient;
import org.sonar.server.es.IndexType;
import org.sonar.server.es.IndexingResult;
import org.sonar.server.es.OneToOneResilientIndexingListener;
import org.sonar.server.es.ProjectIndexer;
import org.sonar.server.permission.index.PermissionIndexerDao.Dto;

import static java.util.Collections.emptyList;
import static org.sonar.core.util.stream.MoreCollectors.toArrayList;
import static org.sonar.core.util.stream.MoreCollectors.toSet;

/**
 * Populates the types "authorization" of each index requiring project
 * authorization.
 */
public class PermissionIndexer implements ProjectIndexer {

    private final DbClient dbClient;
    private final EsClient esClient;
    private final Collection<AuthorizationScope> authorizationScopes;
    private final Set<IndexType> indexTypes;

    public PermissionIndexer(DbClient dbClient, EsClient esClient, NeedAuthorizationIndexer...
    needAuthorizationIndexers) {
        this(dbClient, esClient, Arrays.stream(needAuthorizationIndexers)

```

```

        .map(NeedAuthorizationIndexer::getAuthorizationScope)
        .collect(MoreCollectors.toList(needAuthorizationIndexers.length));
    }

    @VisibleForTesting
    public PermissionIndexer(DbClient dbClient, EsClient esClient, Collection<AuthorizationScope>
authorizationScopes) {
        this.dbClient = dbClient;
        this.esClient = esClient;
        this.authorizationScopes = authorizationScopes;
        this.indexTypes = authorizationScopes.stream()
            .map(AuthorizationScope::getIndexType)
            .collect(toSet(authorizationScopes.size()));
    }

    @Override
    public Set<IndexType> getIndexTypes() {
        return indexTypes;
    }

    @Override
    public void indexOnStartup(Set<IndexType> uninitializedIndexTypes) {
        // TODO do not load everything in memory. Db rows should be scrolled.
        List<Dto> authorizations = getAllAuthorizations();
        Stream<AuthorizationScope> scopes = getScopes(uninitializedIndexTypes);
        index(authorizations, scopes, Size.LARGE);
    }

    @VisibleForTesting
    void index(List<Dto> authorizations) {
        index(authorizations, authorizationScopes.stream(), Size.REGULAR);
    }

    @Override
    public void indexOnAnalysis(String branchUuid) {
        // nothing to do, permissions don't change during an analysis
    }

    @Override
    public Collection<EsQueueDto> prepareForRecovery(DbSession dbSession, Collection<String> projectUuids,
ProjectIndexer.Cause cause) {
        switch (cause) {
            case MEASURE_CHANGE:
            case PROJECT_KEY_UPDATE:
            case PROJECT_TAGS_UPDATE:
                // nothing to change. Measures, project key and tags are not part of this index
                return emptyList();
        }
    }

```



```

    case PROJECT_CREATION:
    case PROJECT_DELETION:
    case PERMISSION_CHANGE:
        return insertIntoEsQueue(dbSession, projectUuids);

    default:
        // defensive case
        throw new IllegalStateException("Unsupported cause: " + cause);
    }
}

private Collection<EsQueueDto> insertIntoEsQueue(DbSession dbSession, Collection<String> projectUuids) {
    List<EsQueueDto> items = indexTypes.stream()
        .flatMap(indexType -> projectUuids.stream().map(projectUuid -> EsQueueDto.create(indexType.format(),
projectUuid, null, projectUuid)))
        .collect(toArrayList());

    dbClient.esQueueDao().insert(dbSession, items);
    return items;
}

private void index(Collection<PermissionIndexerDao.Dto> authorizations, Stream<AuthorizationScope> scopes,
Size bulkSize) {
    if (authorizations.isEmpty()) {
        return;
    }

    // index each authorization in each scope
    scopes.forEach(scope -> {
        IndexType indexType = scope.getIndexType();

        BulkIndexer bulkIndexer = new BulkIndexer(esClient, indexType, bulkSize);
        bulkIndexer.start();

        authorizations.stream()
            .filter(scope.getProjectPredicate())
            .map(dto -> newIndexRequest(dto, indexType))
            .forEach(bulkIndexer::add);

        bulkIndexer.stop();
    });
}

@Override
public IndexingResult index(DbSession dbSession, Collection<EsQueueDto> items) {
    IndexingResult result = new IndexingResult();

    List<BulkIndexer> bulkIndexers = items.stream()

```

```

        .map(EsQueueDto::getDocType)
        .distinct()
        .map(IndexType::parse)
        .filter(indexTypes::contains)
        .map(indexType -> new BulkIndexer(esClient, indexType, Size.REGULAR, new
OneToOneResilientIndexingListener(dbClient, dbSession, items)))
        .collect(Collectors.toList());

    if (bulkIndexers.isEmpty()) {
        return result;
    }

    bulkIndexers.forEach(BulkIndexer::start);

    PermissionIndexerDao permissionIndexerDao = new PermissionIndexerDao();
    Set<String> remainingProjectUuids =
items.stream().map(EsQueueDto::getDocId).collect(MoreCollectors.toHashSet());
    permissionIndexerDao.selectByUuids(dbClient, dbSession, remainingProjectUuids).forEach(p -> {
        remainingProjectUuids.remove(p.getProjectUuid());
        bulkIndexers.forEach(bi -> bi.add(new IndexRequest(p, bi.getIndexType())));
    });

    // the remaining references on projects that don't exist in db. They must
    // be deleted from index.
    remainingProjectUuids.forEach(projectUuid -> bulkIndexers.forEach(bi -> bi.addDeletion(bi.getIndexType(),
projectUuid, projectUuid)));

    bulkIndexers.forEach(b -> result.add(b.stop()));

    return result;
}

private static IndexRequest newIndexRequest(PermissionIndexerDao.Dto dto, IndexType indexType) {
    Map<String, Object> doc = new HashMap<>();
    if (dto.isAllowAnyone()) {
        doc.put(AuthorizationTypeSupport.FIELD_ALLOW_ANYONE, true);
        // no need to feed users and groups
    } else {
        doc.put(AuthorizationTypeSupport.FIELD_ALLOW_ANYONE, false);
        doc.put(AuthorizationTypeSupport.FIELD_GROUP_IDS, dto.getGroupIds());
        doc.put(AuthorizationTypeSupport.FIELD_USER_IDS, dto.getUserIds());
    }
    return new IndexRequest(indexType.getIndex(), indexType.getType())
        .id(dto.getProjectUuid())
        .routing(dto.getProjectUuid())
        .source(doc);
}

```

```

private Stream<AuthorizationScope> getScopes(Set<IndexType> indexTypes) {
    return authorizationScopes.stream()
        .filter(scope -> indexTypes.contains(scope.getIndexType()));
}

private List<Dto> getAllAuthorizations() {
    try (DbSession dbSession = dbClient.openSession(false)) {
        return new PermissionIndexerDao().selectAll(dbClient, dbSession);
    }
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;

import static org.assertj.core.api.Assertions.assertThat;

```

```

import static org.sonar.api.security.DefaultGroups.ANYONE;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class AddGroupToTemplateActionTest extends BasePermissionWsTest<AddGroupToTemplateAction> {

    private PermissionTemplateDto template;
    private GroupDto group;

    @Override
    protected AddGroupToTemplateAction buildWsAction() {
        return new AddGroupToTemplateAction(db.getClient(), newPermissionWsSupport(), userSession);
    }

    @Before
    public void setUp() {
        template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
        group = db.users().insertGroup(db.getDefaultOrganization(), "group-name");
    }

    @Test
    public void add_group_to_template() throws Exception {
        loginAsAdmin(db.getDefaultOrganization());

        newRequest(group.getName(), template.getUuid(), CODEVIEWER);

        assertThat(getGroupNamesInTemplateAndPermission(template,
CODEVIEWER)).containsExactly(group.getName());
    }

    @Test
    public void add_group_to_template_by_name() {
        loginAsAdmin(db.getDefaultOrganization());

        newRequest()
            .setParam(PARAM_GROUP_NAME, group.getName())
            .setParam(PARAM_PERMISSION, CODEVIEWER)
            .setParam(PARAM_TEMPLATE_NAME, template.getName().toUpperCase())
            .execute();

        assertThat(getGroupNamesInTemplateAndPermission(template,
CODEVIEWER)).containsExactly(group.getName());
    }
}

```

```

}

@Test
public void add_with_group_id() {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .setParam(PARAM_GROUP_ID, String.valueOf(group.getId()))
        .execute();

    assertThat(getGroupNamesInTemplateAndPermission(template,
CODEVIEWER)).containsExactly(group.getName());
}

@Test
public void does_not_add_a_group_twice() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest(group.getName(), template.getUuid(), ISSUE_ADMIN);
    newRequest(group.getName(), template.getUuid(), ISSUE_ADMIN);

    assertThat(getGroupNamesInTemplateAndPermission(template,
ISSUE_ADMIN)).containsExactly(group.getName());
}

@Test
public void add_anyone_group_to_template() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest(ANYONE, template.getUuid(), CODEVIEWER);

    assertThat(getGroupNamesInTemplateAndPermission(template, CODEVIEWER)).containsExactly(ANYONE);
}

@Test
public void fail_if_add_anyone_group_to_admin_permission() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage(String.format("It is not possible to add the '%s' permission to the group
'Anyone'", UserRole.ADMIN));

    newRequest(ANYONE, template.getUuid(), ADMIN);
}

@Test

```

```

public void fail_if_not_a_project_permission() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(group.getName(), template.getUuid(), GlobalPermissions.PROVISIONING);
}

@Test
public void fail_if_not_admin_of_default_organization() throws Exception {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest(group.getName(), template.getUuid(), CODEVIEWER);
}

@Test
public void fail_if_group_params_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(null, template.getUuid(), CODEVIEWER);
}

@Test
public void fail_if_permission_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(group.getName(), template.getUuid(), null);
}

@Test
public void fail_if_template_uuid_and_name_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(group.getName(), null, CODEVIEWER);
}

@Test
public void fail_if_group_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
}

```

```

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("No group with name 'unknown-group-name'");

    newRequest("unknown-group-name", template.getUuid(), CODEVIEWER);
}

@Test
public void fail_if_template_key_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-key' is not found");

    newRequest(group.getName(), "unknown-key", CODEVIEWER);
}

private void newRequest(@Nullable String groupName, @Nullable String templateKey, @Nullable String
permission) {
    TestRequest request = newRequest();
    if (groupName != null) {
        request.setParam(PARAM_GROUP_NAME, groupName);
    }
    if (templateKey != null) {
        request.setParam(PARAM_TEMPLATE_ID, templateKey);
    }
    if (permission != null) {
        request.setParam(PARAM_PERMISSION, permission);
    }

    request.execute();
}

private List<String> getGroupNamesInTemplateAndPermission(PermissionTemplateDto template, String
permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(template.getOrganizationUuid()).setPermission(permission).build()
;
    return db.getDbClient().permissionTemplateDao()
        .selectGroupNamesByQueryAndTemplate(db.getSession(), query, template.getId());
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public

```

```

* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

import org.junit.Test;
import org.sonar.core.platform.ComponentContainer;

import static org.assertj.core.api.Assertions.assertThat;
import static
org.sonar.core.platform.ComponentContainer.COMPONENTS_IN_EMPTY_COMPONENT_CONTAINER;

public class PermissionsWsModuleTest {
    @Test
    public void verify_count_of_added_components() {
        ComponentContainer container = new ComponentContainer();
        new PermissionsWsModule().configure(container);
        assertThat(container.size()).isEqualTo(COMPONENTS_IN_EMPTY_COMPONENT_CONTAINER + 25);
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```



```

package org.sonar.server.permission.ws.template;

import java.util.stream.Stream;
import org.junit.Test;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.resources.ResourceType;
import org.sonar.api.resources.ResourceTypeTree;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.db.organization.DefaultTemplates;

import static org.assertj.core.api.Assertions.assertThat;

public class DefaultTemplatesResolverImplTest {

    private static final ResourceTypes RESOURCE_TYPES_WITHOUT_VIEWS = new ResourceTypes(new
ResourceTypeTree[] {
        ResourceTypeTree.builder().addType(ResourceType.builder(Qualifiers.PROJECT).build()).build()
    });
    private static final ResourceTypes RESOURCE_TYPES_WITH_VIEWS = new ResourceTypes(new
ResourceTypeTree[] {
        ResourceTypeTree.builder().addType(ResourceType.builder(Qualifiers.PROJECT).build()).build(),
        ResourceTypeTree.builder().addType(ResourceType.builder(Qualifiers.VIEW).build()).build()
    });
    private DefaultTemplatesResolverImpl underTestWithoutViews = new
DefaultTemplatesResolverImpl(RESOURCE_TYPES_WITHOUT_VIEWS);
    private DefaultTemplatesResolverImpl underTestWithViews = new
DefaultTemplatesResolverImpl(RESOURCE_TYPES_WITH_VIEWS);

    @Test
    public void project_is_project_of_DefaultTemplates_no_matter_if_views_is_installed() {
        Stream.of(
            new DefaultTemplates().setProjectUuid("foo").setViewUuid(null),
            new DefaultTemplates().setProjectUuid("foo").setViewUuid("bar")).forEach(
            defaultTemplates -> {
                assertThat(underTestWithoutViews.resolve(defaultTemplates).getProject()).isEqualTo("foo");
                assertThat(underTestWithViews.resolve(defaultTemplates).getProject()).isEqualTo("foo");
            });
    }

    @Test
    public void view_is_empty_no_matter_view_in_DefaultTemplates_if_views_is_not_installed() {
        DefaultTemplates defaultTemplatesNoView = new DefaultTemplates().setProjectUuid("foo").setViewUuid(null);
        DefaultTemplates defaultTemplatesView = new DefaultTemplates().setProjectUuid("foo").setViewUuid("bar");

        assertThat(underTestWithoutViews.resolve(defaultTemplatesNoView).getView()).isEmpty();
        assertThat(underTestWithoutViews.resolve(defaultTemplatesView).getView()).isEmpty();
    }
}

```

```

@Test
public void view_is_project_of_DefaultTemplates_if_view_in_DefaultTemplates_is_null_and_views_is_installed()
{
    DefaultTemplates defaultTemplates = new DefaultTemplates().setProjectUuid("foo").setViewUuid(null);

    assertThat(underTestWithViews.resolve(defaultTemplates).getView()).contains("foo");
}

```

```

@Test
public void
view_is_view_of_DefaultTemplates_if_view_in_DefaultTemplates_is_not_null_and_views_is_installed() {
    DefaultTemplates defaultTemplates = new DefaultTemplates().setProjectUuid("foo").setViewUuid("bar");

    assertThat(underTestWithViews.resolve(defaultTemplates).getView()).contains("bar");
}
}

```

Sonar, open source software quality management tool.

Copyright (C) 2008-2012 SonarSource

mailto:contact AT sonarsource DOT com

Sonar is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.

Sonar is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with Sonar; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.index;
```

```
import com.google.common.collect.ImmutableMap;  
import com.google.common.collect.ImmutableSet;  
import java.util.Collection;  
import java.util.Set;  
import org.sonar.db.DbSession;  
import org.sonar.db.es.EsQueueDto;  
import org.sonar.server.es.EsClient;  
import org.sonar.server.es.IndexType;  
import org.sonar.server.es.IndexingResult;  
import org.sonar.server.es.ProjectIndexer;
```

```
import static org.sonar.server.permission.index.FooIndexDefinition.INDEX_TYPE_FOO;
```

```
public class FooIndexer implements ProjectIndexer, NeedAuthorizationIndexer {
```

```
    private static final AuthorizationScope AUTHORIZATION_SCOPE = new  
    AuthorizationScope(INDEX_TYPE_FOO, p -> true);
```

```
    private final EsClient esClient;
```

```
    public FooIndexer(EsClient esClient) {  
        this.esClient = esClient;  
    }
```

```
    @Override  
    public AuthorizationScope getAuthorizationScope() {  
        return AUTHORIZATION_SCOPE;  
    }
```

```
    @Override  
    public void indexOnAnalysis(String branchUuid) {  
        addToIndex(branchUuid, "bar");  
        addToIndex(branchUuid, "baz");  
    }
```

```
    @Override  
    public Collection<EsQueueDto> prepareForRecovery(DbSession dbSession, Collection<String> projectUuids,  
    Cause cause) {  
        throw new UnsupportedOperationException();  
    }
```

```
    private void addToIndex(String projectUuid, String name) {
```

```

esClient.prepareIndex(INDEX_TYPE_FOO)
    .setRouting(projectUuid)
    .setParent(projectUuid)
    .setSource(ImmutableMap.of(
        FooIndexDefinition.FIELD_NAME, name,
        FooIndexDefinition.FIELD_PROJECT_UUID, projectUuid))
    .get();
}

@Override
public void indexOnStartup(Set<IndexType> uninitializedIndexTypes) {
    throw new UnsupportedOperationException();
}

@Override
public Set<IndexType> getIndexTypes() {
    return ImmutableSet.of(INDEX_TYPE_FOO);
}

@Override
public IndexingResult index(DbSession dbSession, Collection<EsQueueDto> items) {
    throw new UnsupportedOperationException();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import com.google.common.base.Function;
import javax.annotation.Nonnull;
import org.sonar.api.utils.DateUtils;

```

```

import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonarqube.ws.Permissions.PermissionTemplate;

import static org.sonar.core.util.Protobuf.setNullable;

public class PermissionTemplateDtoToPermissionTemplateResponse {

    private PermissionTemplateDtoToPermissionTemplateResponse() {
        // prevent instantiation
    }

    public static PermissionTemplate toPermissionTemplateResponse(PermissionTemplateDto dto) {
        return Singleton.INSTANCE.apply(dto);
    }

    private enum Singleton implements Function<PermissionTemplateDto, PermissionTemplate> {
        INSTANCE;

        @Override
        public PermissionTemplate apply(@NonNull PermissionTemplateDto permissionTemplate) {
            PermissionTemplate.Builder permissionTemplateBuilder = PermissionTemplate.newBuilder()
                .setId(permissionTemplate.getUuid())
                .setName(permissionTemplate.getName())
                .setCreatedAt(DateUtils.formatDateTime(permissionTemplate.getCreatedAt()))
                .setUpdatedAt(DateUtils.formatDateTime(permissionTemplate.getUpdatedAt()));
            setNullable(permissionTemplate.getDescription(), permissionTemplateBuilder::setDescription);
            setNullable(permissionTemplate.getKeyPattern(), permissionTemplateBuilder::setProjectKeyPattern);
            return permissionTemplateBuilder.build();
        }
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

```

*/
package org.sonar.server.permission;

import java.util.List;

import static org.apache.commons.lang.StringUtils.isNotBlank;
import static org.sonar.server.ws.WsUtils.checkRequest;

public class ApplyPermissionTemplateQuery {

    private final String templateUuid;
    private List<String> componentKeys;

    private ApplyPermissionTemplateQuery(String templateUuid, List<String> componentKeys) {
        this.templateUuid = templateUuid;
        this.componentKeys = componentKeys;
        validate();
    }

    public static ApplyPermissionTemplateQuery create(String templateUuid, List<String> componentKeys) {
        return new ApplyPermissionTemplateQuery(templateUuid, componentKeys);
    }

    public String getTemplateUuid() {
        return templateUuid;
    }

    public List<String> getComponentKeys() {
        return componentKeys;
    }

    private void validate() {
        checkRequest(isNotBlank(templateUuid), "Permission template is mandatory");
        checkRequest(componentKeys != null && !componentKeys.isEmpty(), "No project provided. Please provide at
least one project.");
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,

```

* but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.server.permission.ws;
```

```
import org.sonar.api.server.ws.WebService.NewAction;
import org.sonar.api.server.ws.WebService.NewParam;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.core.util.Uuids;
```

```
import static java.lang.String.format;
import static org.sonar.server.ws.KeyExamples.KEY_PROJECT_EXAMPLE_001;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_DESCRIPTION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;
```

```
public class PermissionsWsParametersBuilder {
```

```
    private static final String PERMISSION_PARAM_DESCRIPTION = format("Permission" +
        "<ul>" +
        "<li>Possible values for global permissions: %s</li>" +
        "<li>Possible values for project permissions %s</li>" +
        "</ul>",
        GlobalPermissions.ALL_ON_ONE_LINE,
        ProjectPermissions.ALL_ON_ONE_LINE);
    public static final String PROJECT_PERMISSION_PARAM_DESCRIPTION = format("Permission" +
        "<ul>" +
        "<li>Possible values for project permissions %s</li>" +
        "</ul>",
        ProjectPermissions.ALL_ON_ONE_LINE);
```

```
    private PermissionsWsParametersBuilder() {
        // static methods only
```

```

}

public static NewParam createPermissionParameter(NewAction action) {
    return action.createParam(PARAM_PERMISSION)
        .setDescription(PERMISSION_PARAM_DESCRIPTION)
        .setRequired(true);
}

public static NewParam createProjectPermissionParameter(NewAction action, boolean required) {
    return action.createParam(PARAM_PERMISSION)
        .setDescription(PROJECT_PERMISSION_PARAM_DESCRIPTION)
        .setPossibleValues(ProjectPermissions.ALL)
        .setRequired(required);
}

public static NewParam createProjectPermissionParameter(NewAction action) {
    return createProjectPermissionParameter(action, true);
}

public static void createGroupNameParameter(NewAction action) {
    action.createParam(PARAM_GROUP_NAME)
        .setDescription("Group name or 'anyone' (case insensitive)")
        .setExampleValue("sonar-administrators");
}

public static NewParam createOrganizationParameter(NewAction action) {
    return action.createParam(PARAM_ORGANIZATION)
        .setDescription("Key of organization, used when group name is set")
        .setExampleValue("my-org")
        .setInternal(true);
}

public static void createGroupIdParameter(NewAction action) {
    action.createParam(PARAM_GROUP_ID)
        .setDescription("Group id")
        .setExampleValue("42");
}

public static void createProjectParameters(NewAction action) {
    createProjectIdParameter(action);
    createProjectKeyParameter(action);
}

private static void createProjectIdParameter(NewAction action) {
    action.createParam(PARAM_PROJECT_ID)
        .setDescription("Project id")
        .setExampleValue("ce4c03d6-430f-40a9-b777-ad877c00aa4d");
}

```



```

private static void createProjectKeyParameter(NewAction action) {
    action.createParam(PARAM_PROJECT_KEY)
        .setDescription("Project key")
        .setExampleValue(KEY_PROJECT_EXAMPLE_001);
}

public static void createUserLoginParameter(NewAction action) {
    action.createParam(PARAM_USER_LOGIN)
        .setRequired(true)
        .setDescription("User login")
        .setExampleValue("g.hopper");
}

public static void createTemplateParameters(NewAction action) {
    createTemplateIdParameter(action);
    createOrganizationParameter(action);
    createTemplateNameParameter(action);
}

private static void createTemplateIdParameter(NewAction action) {
    action.createParam(PARAM_TEMPLATE_ID)
        .setDescription("Template id")
        .setExampleValue(Uuids.UUID_EXAMPLE_01);
}

private static void createTemplateNameParameter(NewAction action) {
    action.createParam(PARAM_TEMPLATE_NAME)
        .setDescription("Template name")
        .setExampleValue("Default Permission Template for Projects");
}

public static void createTemplateProjectKeyPatternParameter(NewAction action) {
    action.createParam(PARAM_PROJECT_KEY_PATTERN)
        .setDescription("Project key pattern. Must be a valid Java regular expression")
        .setExampleValue(".*\\.finance\\..*");
}

public static void createTemplateDescriptionParameter(NewAction action) {
    action.createParam(PARAM_DESCRIPTION)
        .setDescription("Description")
        .setExampleValue("Permissions for all projects related to the financial service");
}

public static void createIdParameter(NewAction action) {
    action.createParam(PARAM_ID)
        .setRequired(true)
        .setDescription("Id")

```

```

        .setExampleValue("af8cb8cc-1e78-4c4e-8c00-ee8e814009a5");
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission;

import java.util.Optional;
import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.core.permission.ProjectPermissions;

import static java.util.Objects.requireNonNull;
import static org.sonar.server.ws.WsUtils.checkRequest;

public abstract class PermissionChange {

    public enum Operation {
        ADD, REMOVE
    }

    private final Operation operation;
    private final String organizationUuid;
    private final String permission;
    private final ProjectId projectId;

    public PermissionChange(Operation operation, String organizationUuid, String permission, @Nullable ProjectId
projectId) {
        this.operation = requireNonNull(operation);
        this.organizationUuid = requireNonNull(organizationUuid);

```

```

    this.permission = requireNonNull(permission);
    this.projectId = projectId;
    if (projectId == null) {
        checkRequest(GlobalPermissions.ALL.contains(permission), "Invalid global permission '%s'. Valid values are
%s", permission, GlobalPermissions.ALL);
    } else {
        checkRequest(ProjectPermissions.ALL.contains(permission), "Invalid project permission '%s'. Valid values are
%s", permission, ProjectPermissions.ALL);
    }
}

public Operation getOperation() {
    return operation;
}

public String getOrganizationUuid() {
    return organizationUuid;
}

public String getPermission() {
    return permission;
}

public Optional<ProjectId> getProjectId() {
    return Optional.ofNullable(projectId);
}

/**
 * Shortcut based on {@link #getProjectId()}
 */
@CheckForNull
public String getProjectUuid() {
    return projectId == null ? null : projectId.getUuid();
}

/**
 * Shortcut based on {@link #getProjectId()}
 */
@CheckForNull
public Long getNullableProjectId() {
    return projectId == null ? null : projectId.getId();
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *

```

```

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```

```
package org.sonar.server.permission.index;
```

```

import com.google.common.collect.ImmutableList;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.ArrayList;
import java.util.Collection;
import java.util.Collections;
import java.util.HashMap;
import java.util.List;
import java.util.Map;
import org.apache.commons.lang.StringUtils;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;

```

```

import static org.apache.commons.lang.StringUtils.repeat;
import static org.sonar.db.DatabaseUtils.executeLargeInputs;

```

```
/**
```

```

* No streaming because of union of joins -> no need to use ResultSetIterator
*/

```

```
public class PermissionIndexerDao {
```

```

    public static final class Dto {
        private final String projectUuid;
        private final String qualifier;
        private final List<Integer> userIds = new ArrayList<>();
        private final List<Integer> groupIds = new ArrayList<>();
        private boolean allowAnyone = false;
    }

```

```

    public Dto(String projectUuid, String qualifier) {
        this.projectUuid = projectUuid;
        this.qualifier = qualifier;
    }

```

```

    }

    public String getProjectUuid() {
        return projectUuid;
    }

    public String getQualifier() {
        return qualifier;
    }

    public List<Integer> getUserIds() {
        return userIds;
    }

    public Dto addUserId(int l) {
        userIds.add(l);
        return this;
    }

    public Dto addGroupId(int id) {
        groupIds.add(id);
        return this;
    }

    public List<Integer> getGroupIds() {
        return groupIds;
    }

    public void allowAnyone() {
        this.allowAnyone = true;
    }

    public boolean isAllowAnyone() {
        return allowAnyone;
    }
}

private enum RowKind {
    USER, GROUP, ANYONE, NONE
}

private static final String SQL_TEMPLATE = "SELECT " +
    " project_authorization.kind as kind, " +
    " project_authorization.project as project, " +
    " project_authorization.user_id as user_id, " +
    " project_authorization.group_id as group_id, " +
    " project_authorization.qualifier as qualifier " +
    "FROM ( " +

```

```

// users

"  SELECT "" + RowKind.USER + "" as kind," +
"  projects.uuid AS project, " +
"  projects.qualifier AS qualifier, " +
"  user_roles.user_id AS user_id, " +
"  NULL AS group_id " +
"  FROM projects " +
"  INNER JOIN user_roles ON user_roles.resource_id = projects.id AND user_roles.role = 'user' " +
"  WHERE " +
"    (projects.qualifier = 'TRK' " +
"     or projects.qualifier = 'VW' " +
"     or projects.qualifier = 'APP') " +
"  AND projects.copy_component_uuid is NULL " +
"    {projectsCondition} " +
"  UNION " +

// groups

"  SELECT "" + RowKind.GROUP + "" as kind," +
"  projects.uuid AS project, " +
"  projects.qualifier AS qualifier, " +
"  NULL AS user_id, " +
"  groups.id AS group_id " +
"  FROM projects " +
"  INNER JOIN group_roles ON group_roles.resource_id = projects.id AND group_roles.role = 'user' " +
"  INNER JOIN groups ON groups.id = group_roles.group_id " +
"  WHERE " +
"    (projects.qualifier = 'TRK' " +
"     or projects.qualifier = 'VW' " +
"     or projects.qualifier = 'APP') " +
"  AND projects.copy_component_uuid is NULL " +
"    {projectsCondition} " +
"  AND group_id IS NOT NULL " +
"  UNION " +

// public projects are accessible to any one

"  SELECT "" + RowKind.ANYONE + "" as kind," +
"  projects.uuid AS project, " +
"  projects.qualifier AS qualifier, " +
"  NULL AS user_id, " +
"  NULL AS group_id " +
"  FROM projects " +
"  WHERE " +
"    (projects.qualifier = 'TRK' " +
"     or projects.qualifier = 'VW' " +

```

```

"    or projects.qualifier = 'APP') " +
"    AND projects.copy_component_uuid is NULL " +
"    AND projects.private = ? " +
"    {projectsCondition} " +
"    UNION " +

// private project is returned when no authorization
"    SELECT "" + RowKind.NONE + "" as kind," +
"    projects.uuid AS project, " +
"    projects.qualifier AS qualifier, " +
"    NULL AS user_id, " +
"    NULL AS group_id " +
"    FROM projects " +
"    WHERE " +
"    (projects.qualifier = 'TRK' " +
"    or projects.qualifier = 'VW' " +
"    or projects.qualifier = 'APP') " +
"    AND projects.copy_component_uuid is NULL " +
"    AND projects.private = ? " +
"    {projectsCondition} " +

" ) project_authorization";

```

```

List<Dto> selectAll(DbClient dbClient, DbSession session) {
    return doSelectByProjects(dbClient, session, Collections.emptyList());
}

```

```

List<Dto> selectByUuids(DbClient dbClient, DbSession session, Collection<String> projectOrViewUuids) {
    return executeLargeInputs(projectOrViewUuids, subProjectOrViewUuids -> doSelectByProjects(dbClient,
session, subProjectOrViewUuids));
}

```

```

private static List<Dto> doSelectByProjects(DbClient dbClient, DbSession session, List<String> projectUuids) {
    try {
        Map<String, Dto> dtosByProjectUuid = new HashMap<>();
        try (PreparedStatement stmt = createStatement(dbClient, session, projectUuids);
            ResultSet rs = stmt.executeQuery()) {
            while (rs.next()) {
                processRow(rs, dtosByProjectUuid);
            }
            return ImmutableList.copyOf(dtosByProjectUuid.values());
        }
    } catch (SQLException e) {
        throw new IllegalStateException("Fail to select authorizations", e);
    }
}

```

```

private static PreparedStatement createStatement(DbClient dbClient, DbSession session, List<String>

```

```

projectUuids) throws SQLException {
    String sql;
    if (projectUuids.isEmpty()) {
        sql = StringUtils.replace(SQL_TEMPLATE, "{projectsCondition}", "");
    } else {
        sql = StringUtils.replace(SQL_TEMPLATE, "{projectsCondition}", " AND projects.uuid in (" + repeat("?", " ", " ",
projectUuids.size()) + ")");
    }
    PreparedStatement stmt = dbClient.getMyBatis().newScrollingSelectStatement(session, sql);
    int index = 1;
    // query for RowKind.USER
    index = populateProjectUuidPlaceholders(stmt, projectUuids, index);
    // query for RowKind.GROUP
    index = populateProjectUuidPlaceholders(stmt, projectUuids, index);
    // query for RowKind.ANYONE
    index = setPrivateProjectPlaceHolder(stmt, index, false);
    index = populateProjectUuidPlaceholders(stmt, projectUuids, index);
    // query for RowKind.NONE
    index = setPrivateProjectPlaceHolder(stmt, index, true);
    populateProjectUuidPlaceholders(stmt, projectUuids, index);
    return stmt;
}

```

```

private static int populateProjectUuidPlaceholders(PreparedStatement stmt, List<String> projectUuids, int index)
throws SQLException {
    int newIndex = index;
    for (String projectUuid : projectUuids) {
        stmt.setString(newIndex, projectUuid);
        newIndex++;
    }
    return newIndex;
}

```

```

private static int setPrivateProjectPlaceHolder(PreparedStatement stmt, int index, boolean isPrivate) throws
SQLException {
    int newIndex = index;
    stmt.setBoolean(newIndex, isPrivate);
    newIndex++;
    return newIndex;
}

```

```

private static void processRow(ResultSet rs, Map<String, Dto> dtosByProjectUuid) throws SQLException {
    RowKind rowKind = RowKind.valueOf(rs.getString(1));
    String projectUuid = rs.getString(2);

    Dto dto = dtosByProjectUuid.get(projectUuid);
    if (dto == null) {
        String qualifier = rs.getString(5);

```



```

    dto = new Dto(projectUuid, qualifier);
    dtosByProjectUuid.put(projectUuid, dto);
}
switch (rowKind) {
    case NONE:
        break;
    case USER:
        dto.addUserId(rs.getInt(3));
        break;
    case GROUP:
        dto.addGroupId(rs.getInt(4));
        break;
    case ANYONE:
        dto.allowAnyone();
        break;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import com.google.common.collect.HashBasedTable;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;

import static java.util.Collections.singletonList;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;

public class SearchTemplatesDataTest {

```

```
@Rule
public ExpectedException expectedException = ExpectedException.none();

SearchTemplatesData.Builder underTest = SearchTemplatesData.builder()
    .defaultTemplates(new DefaultTemplatesResolverImpl.ResolvedDefaultTemplates("template_uuid", null))
    .templates(singleList(new PermissionTemplateDto()))
    .userCountByTemplateIdAndPermission(HashBasedTable.create())
    .groupCountByTemplateIdAndPermission(HashBasedTable.create())
    .withProjectCreatorByTemplateIdAndPermission(HashBasedTable.create());
```

```
@Test
public void fail_if_templates_is_null() {
    expectedException.expect(IllegalStateException.class);
    underTest.templates(null);
```

```
    underTest.build();
}
```

```
@Test
public void fail_if_default_templates_are_null() {
    expectedException.expect(IllegalStateException.class);
    underTest.defaultTemplates(null);
```

```
    underTest.build();
}
```

```
@Test
public void fail_if_user_count_is_null() {
    expectedException.expect(IllegalStateException.class);
    underTest.userCountByTemplateIdAndPermission(null);
```

```
    underTest.build();
}
```

```
@Test
public void fail_if_group_count_is_null() {
    expectedException.expect(IllegalStateException.class);
    underTest.groupCountByTemplateIdAndPermission(null);
```

```
    underTest.build();
}
```

```
@Test
public void fail_if_with_project_creators_is_null() {
    expectedException.expect(IllegalStateException.class);
    underTest.withProjectCreatorByTemplateIdAndPermission(null);
```

```
    underTest.build();
}
```

```

    }
  }
  {
    "paging": {
      "pageIndex": 1,
      "pageSize": 100,
      "total": 3
    },
    "groups": [
      {
        "name": "Anyone",
        "permissions": []
      },
      {
        "id": "1",
        "name": "sonar-administrators",
        "description": "System administrators",
        "permissions": []
      },
      {
        "id": "2",
        "name": "sonar-users",
        "description": "Any new users created will automatically join this group",
        "permissions": []
      }
    ]
  }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
import React from 'react';
import PropTypes from 'prop-types';

```

```

import Helmet from 'react-helmet';
import Header from './Header';
import List from './List';
import { translate } from '../helpers/110n';

export default class Home extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    topQualifiers: PropTypes.array.isRequired,
    permissions: PropTypes.array.isRequired,
    permissionTemplates: PropTypes.array.isRequired,
    ready: PropTypes.bool.isRequired,
    refresh: PropTypes.func.isRequired
  };

  render() {
    return (
      <div className="page page-limited">
        <Helmet title={translate('permission_templates.page')} />

        <Header
          organization={this.props.organization}
          ready={this.props.ready}
          refresh={this.props.refresh}
        />

        <List
          organization={this.props.organization}
          permissionTemplates={this.props.permissionTemplates}
          permissions={this.props.permissions}
          topQualifiers={this.props.topQualifiers}
          refresh={this.props.refresh}
        />
      </div>
    );
  }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,

```

* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws.template;
```

```
import java.util.List;
```

```
import java.util.Locale;
```

```
import com.google.common.collect.Lists;
```

```
import com.google.common.collect.Table;
```

```
import com.google.common.collect.TreeBasedTable;
```

```
import org.sonar.api.i18n.I18n;
```

```
import org.sonar.api.resources.Qualifiers;
```

```
import org.sonar.api.server.ws.Request;
```

```
import org.sonar.api.server.ws.Response;
```

```
import org.sonar.api.server.ws.WebService;
```

```
import org.sonar.api.server.ws.WebService.Param;
```

```
import org.sonar.core.permission.ProjectPermissions;
```

```
import org.sonar.db.DbClient;
```

```
import org.sonar.db.DbSession;
```

```
import org.sonar.db.organization.DefaultTemplates;
```

```
import org.sonar.db.organization.OrganizationDto;
```

```
import org.sonar.db.permission.template.CountByTemplateAndPermissionDto;
```

```
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
```

```
import org.sonar.db.permission.template.PermissionTemplateDto;
```

```
import org.sonar.server.permission.ws.PermissionWsSupport;
```

```
import org.sonar.server.permission.ws.PermissionsWsAction;
```

```
import org.sonar.server.user.UserSession;
```

```
import org.sonarqube.ws.Permissions;
```

```
import org.sonarqube.ws.Permissions.Permission;
```

```
import org.sonarqube.ws.Permissions.PermissionTemplate;
```

```
import org.sonarqube.ws.Permissions.SearchTemplatesWsResponse;
```

```
import org.sonarqube.ws.Permissions.SearchTemplatesWsResponse.TemplateIdQualifier;
```

```
import javax.annotation.CheckForNull;
```

```
import javax.annotation.Nullable;
```

```
import static org.sonar.api.utils.DateUtils.formatDateTime;
```

```
import static org.sonar.core.util.Protobuf.setNullable;
```

```
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
```

```
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
```

```
import static org.sonar.server.permission.ws.template.SearchTemplatesData.builder;
```

```
import static org.sonar.server.ws.WsUtils.checkFoundWithOptional;
```

```

import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;

public class SearchTemplatesAction implements PermissionsWsAction {
    private static final String PROPERTY_PREFIX = "projects_role.";
    private static final String DESCRIPTION_SUFFIX = ".desc";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final I18n i18n;
    private final PermissionWsSupport support;
    private final DefaultTemplatesResolver defaultTemplatesResolver;

    public SearchTemplatesAction(DbClient dbClient, UserSession userSession, I18n i18n, PermissionWsSupport
support, DefaultTemplatesResolver defaultTemplatesResolver) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.i18n = i18n;
        this.support = support;
        this.defaultTemplatesResolver = defaultTemplatesResolver;
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction("search_templates")
            .setDescription("List permission templates.<br />" +
                "Requires the following permission: 'Administer System'.")
            .setResponseExample(getClass().getResource("search_templates-example.json"))
            .setSince("5.2")
            .addSearchQuery("defau", "permission template names")
            .setHandler(this);

        createOrganizationParameter(action).setSince("6.2");
    }

    @Override
    public void handle(Request wsRequest, Response wsResponse) throws Exception {
        try (DbSession dbSession = dbClient.openSession(false)) {
            OrganizationDto org = support.findOrganization(dbSession, wsRequest.param(PARAM_ORGANIZATION));
            SearchTemplatesRequest request = new SearchTemplatesRequest()
                .setOrganizationUuid(org.getUuid())
                .setQuery(wsRequest.param(Param.TEXT_QUERY));
            checkGlobalAdmin(userSession, request.getOrganizationUuid());

            SearchTemplatesWsResponse searchTemplatesWsResponse = buildResponse(load(dbSession, request));
            writeProtobuf(searchTemplatesWsResponse, wsRequest, wsResponse);
        }
    }
}

```

```

private static void buildDefaultTemplatesResponse(SearchTemplatesWsResponse.Builder response,
SearchTemplatesData data) {
    TemplateIdQualifier.Builder templateUuidQualifierBuilder = TemplateIdQualifier.newBuilder();

    DefaultTemplatesResolverImpl.ResolvedDefaultTemplates resolvedDefaultTemplates = data.defaultTemplates();
    response.addDefaultTemplates(templateUuidQualifierBuilder
        .setQualifier(Qualifiers.PROJECT)
        .setTemplateId(resolvedDefaultTemplates.getProject()));

    resolvedDefaultTemplates.getView()
        .ifPresent(viewDefaultTemplate -> response.addDefaultTemplates(
            templateUuidQualifierBuilder
                .clear()
                .setQualifier(Qualifiers.VIEW)
                .setTemplateId(viewDefaultTemplate)));
}

private static void buildTemplatesResponse(Permissions.SearchTemplatesWsResponse.Builder response,
SearchTemplatesData data) {
    Permission.Builder permissionResponse = Permission.newBuilder();
    PermissionTemplate.Builder templateBuilder = PermissionTemplate.newBuilder();

    for (PermissionTemplateDto templateDto : data.templates()) {
        templateBuilder
            .clear()
            .setId(templateDto.getUuid())
            .setName(templateDto.getName())
            .setCreatedAt(formatDateTime(templateDto.getCreatedAt()))
            .setUpdatedAt(formatDateTime(templateDto.getUpdatedAt()));
        setNullable(templateDto.getKeyPattern(), templateBuilder::setProjectKeyPattern);
        setNullable(templateDto.getDescription(), templateBuilder::setDescription);
        for (String permission : ProjectPermissions.ALL) {
            templateBuilder.addPermissions(
                permissionResponse
                    .clear()
                    .setKey(permission)
                    .setUsersCount(data.userCount(templateDto.getId(), permission))
                    .setGroupsCount(data.groupCount(templateDto.getId(), permission))
                    .setWithProjectCreator(data.withProjectCreator(templateDto.getId(), permission)));
        }
        response.addPermissionTemplates(templateBuilder);
    }
}

private Permissions.SearchTemplatesWsResponse buildResponse(SearchTemplatesData data) {
    SearchTemplatesWsResponse.Builder response = SearchTemplatesWsResponse.newBuilder();

```

```

    buildTemplatesResponse(response, data);
    buildDefaultTemplatesResponse(response, data);
    buildPermissionsResponse(response);

    return response.build();
}

private void buildPermissionsResponse(SearchTemplatesWsResponse.Builder response) {
    Permission.Builder permissionResponse = Permission.newBuilder();
    for (String permissionKey : ProjectPermissions.ALL) {
        response.addPermissions(
            permissionResponse
                .clear()
                .setKey(permissionKey)
                .setName(i18nName(permissionKey))
                .setDescription(i18nDescriptionMessage(permissionKey)));
    }
}

private String i18nDescriptionMessage(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey + DESCRIPTION_SUFFIX, "");
}

private String i18nName(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey, permissionKey);
}

private SearchTemplatesData load(DbSession dbSession, SearchTemplatesRequest request) {
    SearchTemplatesData.Builder data = builder();
    List<PermissionTemplateDto> templates = searchTemplates(dbSession, request);
    List<Long> templateIds = Lists.transform(templates, PermissionTemplateDto::getId);

    DefaultTemplates defaultTemplates = checkFoundWithOptional(
        dbClient.organizationDao().getDefaultTemplates(dbSession, request.getOrganizationUuid()),
        "No Default templates for organization with uuid '%s'", request.getOrganizationUuid());
    DefaultTemplatesResolver.ResolvedDefaultTemplates resolvedDefaultTemplates =
    defaultTemplatesResolver.resolve(defaultTemplates);

    data.templates(templates)
        .defaultTemplates(resolvedDefaultTemplates)
        .userCountByTemplateIdAndPermission(userCountByTemplateIdAndPermission(dbSession, templateIds))
        .groupCountByTemplateIdAndPermission(groupCountByTemplateIdAndPermission(dbSession,
    templateIds))
    .withProjectCreatorByTemplateIdAndPermission(withProjectCreatorsByTemplateIdAndPermission(dbSession, tem
    plateIds));

    return data.build();
}

```



```

private List<PermissionTemplateDto> searchTemplates(DbSession dbSession, SearchTemplatesRequest request) {
    return dbClient.permissionTemplateDao().selectAll(dbSession, request.getOrganizationUuid(),
request.getQuery());
}

private Table<Long, String, Integer> userCountByTemplateIdAndPermission(DbSession dbSession, List<Long>
templateIds) {
    final Table<Long, String, Integer> userCountByTemplateIdAndPermission = TreeBasedTable.create();

    dbClient.permissionTemplateDao().usersCountByTemplateIdAndPermission(dbSession, templateIds, context -> {
        CountByTemplateAndPermissionDto row = context.getResultObject();
        userCountByTemplateIdAndPermission.put(row.getTemplateId(), row.getPermission(), row.getCount());
    });

    return userCountByTemplateIdAndPermission;
}

private Table<Long, String, Integer> groupCountByTemplateIdAndPermission(DbSession dbSession, List<Long>
templateIds) {
    final Table<Long, String, Integer> userCountByTemplateIdAndPermission = TreeBasedTable.create();

    dbClient.permissionTemplateDao().groupsCountByTemplateIdAndPermission(dbSession, templateIds, context ->
{
        CountByTemplateAndPermissionDto row = context.getResultObject();
        userCountByTemplateIdAndPermission.put(row.getTemplateId(), row.getPermission(), row.getCount());
    });

    return userCountByTemplateIdAndPermission;
}

private Table<Long, String, Boolean> withProjectCreatorsByTemplateIdAndPermission(DbSession dbSession,
List<Long> templateIds) {
    final Table<Long, String, Boolean> templatePermissionsByTemplateIdAndPermission = TreeBasedTable.create();

    List<PermissionTemplateCharacteristicDto> templatePermissions =
dbClient.permissionTemplateCharacteristicDao().selectByTemplateIds(dbSession, templateIds);
    templatePermissions.stream()
        .forEach(templatePermission ->
templatePermissionsByTemplateIdAndPermission.put(templatePermission.getTemplateId(),
templatePermission.getPermission(),
        templatePermission.getWithProjectCreator()));

    return templatePermissionsByTemplateIdAndPermission;
}

private static class SearchTemplatesRequest {
    private String query;
}

```

```

private String organizationUuid;

@CheckForNull
public String getQuery() {
    return query;
}

public SearchTemplatesRequest setQuery(@Nullable String query) {
    this.query = query;
    return this;
}

public String getOrganizationUuid() {
    return organizationUuid;
}

public SearchTemplatesRequest setOrganizationUuid(String s) {
    this.organizationUuid = s;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.core.permission;

import org.junit.Test;
import org.sonar.api.web.UserRole;

import static org.assertj.core.api.Assertions.assertThat;

```

```

public class ProjectPermissionsTest {

    @Test
    public void all_permissions() {
        assertThat(ProjectPermissions.ALL).containsExactly(UserRole.ADMIN, UserRole.CODEVIEWER,
        UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION, UserRole.USER);
    }

    @Test
    public void all_permissions_as_string() {
        assertThat(ProjectPermissions.ALL_ON_ONE_LINE).isEqualTo("admin, codeviewer, issueadmin, scan, user");
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import PropTypes from 'prop-types';
import { Link } from 'react-router';
import ActionsCell from './ActionsCell';
import { translate } from '../helpers/I10n';

export default class TemplateHeader extends React.PureComponent {
    static propTypes = {
        organization: PropTypes.object,
        template: PropTypes.object.isRequired,
        loading: PropTypes.bool.isRequired,
        refresh: PropTypes.func.isRequired,
        topQualifiers: PropTypes.array.isRequired
    };

    render() {

```

```

const { template, organization } = this.props;

const pathname = organization
  ? `/_organizations/${organization.key}/permission_templates`
  : '/permission_templates';

return (
  <header id="project-permissions-header" className="page-header">
    <div className="note spacer-bottom">
      <Link to={pathname} className="text-muted">
        {translate('permission_templates.page')}
      </Link>
    </div>

    <h1 className="page-title">{template.name}</h1>

    {this.props.loading && <i className="spinner" />}

    <div className="pull-right">
      <ActionsCell
        organization={this.props.organization}
        permissionTemplate={this.props.template}
        topQualifiers={this.props.topQualifiers}
        refresh={this.props.refresh}
        fromDetails={true}
      />
    </div>
  </header>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,

```

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.db.permission;
```

```
import java.util.ArrayList;
import java.util.Arrays;
import java.util.Collection;
import java.util.List;
import java.util.Random;
import java.util.function.Consumer;
import java.util.stream.Collectors;
import org.assertj.core.groups.Tuple;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.UserDto;
```

```
import static java.util.Arrays.asList;
import static java.util.Arrays.stream;
import static java.util.Collections.emptyList;
import static java.util.Collections.singletonList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.tuple;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
```

```
public class UserPermissionDaoTest {
```

```
    @Rule
```

```
    public DbTester db = DbTester.create(System2.INSTANCE);
```

```
    private DbSession dbSession = db.getSession();
```

```
    private UserPermissionDao underTest = new UserPermissionDao();
```

```
    @Test
```

```
    public void select_global_permissions() {
```

```

OrganizationDto organization = db.organizations().insert();
OrganizationDto org2 = db.organizations().insert();
UserDto user1 = insertUser(u -> u.setLogin("login1").setName("Marius").setEmail("email1@email.com"),
organization, org2);
UserDto user2 = insertUser(u -> u.setLogin("login2").setName("Marie").setEmail("email2@email.com"),
organization, org2);
UserDto user3 = insertUser(u -> u.setLogin("zanother").setName("Zoe").setEmail("zanother3@another.com"),
organization);
ComponentDto project = db.components().insertPrivateProject(organization);
UserPermissionDto global1 = addGlobalPermission(organization, SYSTEM_ADMIN, user1);
UserPermissionDto global2 = addGlobalPermission(organization, SYSTEM_ADMIN, user2);
UserPermissionDto global3 = addGlobalPermission(organization, PROVISIONING, user2);
UserPermissionDto project1Perm = addProjectPermission(organization, USER, user3, project);
// permissions on another organization, to be excluded
UserPermissionDto org2Global1 = addGlobalPermission(org2, SYSTEM_ADMIN, user1);
UserPermissionDto org2Global2 = addGlobalPermission(org2, PROVISIONING, user2);

// global permissions of users who has at least one global permission, ordered by user name then permission
PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().build();
expectPermissions(query, asList(user2.getId(), user1.getId(), global2, global3, global1);

// default query returns all users, whatever their permissions nor organizations
// (that's a non-sense, but still this is required for api/permissions/groups
// when filtering users by name)
query = PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).build();
expectPermissions(query, asList(user2.getId(), user1.getId(), user3.getId(), global2, global3, org2Global2,
global1, org2Global1, project1Perm);

// global permissions "admin"
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setPermission(SYSTEM_ADMIN).build();
expectPermissions(query, asList(user2.getId(), user1.getId(), global2, global1);

// empty if nobody has the specified global permission
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setPermission("missing").build();
expectPermissions(query, emptyList());

// search by user name (matches 2 users)
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setSearchQue
ry("mari").build();
expectPermissions(query, asList(user2.getId(), user1.getId(), global2, global3, global1);

// search by user login
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setSearchQue

```

```

ry("ogin2").build();
    expectPermissions(query, singletonList(user2.getId()), global2, global3);

    // search by user email
    query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setSearchQue
ry("mail2").build();
    expectPermissions(query, singletonList(user2.getId()), global2, global3);

    // search by user name (matches 2 users) and global permission
    query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setSearchQuery("Mari").setPermission(PR
OVISIONING).build();
    expectPermissions(query, singletonList(user2.getId()), global3);

    // search by user name (no match)
    query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setSearchQuery("Unknown").build();
    expectPermissions(query, emptyList());
}

@Test
public void select_project_permissions() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(u -> u.setLogin("login1").setName("Marius").setEmail("email1@email.com"),
organization);
    UserDto user2 = insertUser(u -> u.setLogin("login2").setName("Marie").setEmail("email2@email.com"),
organization);
    UserDto user3 = insertUser(u -> u.setLogin("zanother").setName("Zoe").setEmail("zanother3@another.com"),
organization);
    addGlobalPermission(organization, SYSTEM_ADMIN, user1);
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    UserPermissionDto perm1 = addProjectPermission(organization, USER, user1, project1);
    UserPermissionDto perm2 = addProjectPermission(organization, ISSUE_ADMIN, user1, project1);
    UserPermissionDto perm3 = addProjectPermission(organization, ISSUE_ADMIN, user2, project1);
    addProjectPermission(organization, ISSUE_ADMIN, user3, project2);

    // project permissions of users who has at least one permission on this project
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setComponen
tUuid(project1.uuid()).build();
    expectPermissions(query, asList(user2.getId(), user1.getId(), perm3, perm2, perm1);

    // empty if nobody has the specified global permission
    query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setPermission("missing").setComponentUu
id(project1.uuid()).build();

```

```

expectPermissions(query, emptyList());

// search by user name (matches 2 users), users with at least one permission
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setSearchQuery("Mari").withAtLeastOneP
ermission().setComponentUuid(project1.uuid()).build();
expectPermissions(query, asList(user2.getId(), user1.getId()), perm3, perm2, perm1);

// search by user name (matches 2 users) and project permission
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setSearchQuery("Mari").setPermission(ISS
UE_ADMIN).setComponentUuid(project1.uuid()).build();
expectPermissions(query, asList(user2.getId(), user1.getId()), perm3, perm2);

// search by user name (no match)
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setSearchQuery("Unknown").setCompone
ntUuid(project1.uuid()).build();
expectPermissions(query, emptyList());

// permissions of unknown project
query =
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).setComponentUuid("missing").withAtLeas
tOnePermission().build();
expectPermissions(query, emptyList());
}

@Test
public void countUsersByProjectPermission() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    addGlobalPermission(organization, SYSTEM_ADMIN, user1);
    addProjectPermission(organization, USER, user1, project1);
    addProjectPermission(organization, ISSUE_ADMIN, user1, project1);
    addProjectPermission(organization, ISSUE_ADMIN, user2, project1);
    addProjectPermission(organization, ISSUE_ADMIN, user2, project2);

// no projects -> return empty list
assertThat(underTest.countUsersByProjectPermission(dbSession, emptyList())).isEmpty();

// one project
expectCount(singletonList(project1.getId()),
    new CountPerProjectPermission(project1.getId(), USER, 1),
    new CountPerProjectPermission(project1.getId(), ISSUE_ADMIN, 2));

```



```

// multiple projects
expectCount(asList(project1.getId(), project2.getId(), -1L),
    new CountPerProjectPermission(project1.getId(), USER, 1),
    new CountPerProjectPermission(project1.getId(), ISSUE_ADMIN, 2),
    new CountPerProjectPermission(project2.getId(), ISSUE_ADMIN, 1));
}

@Test
public void selectUserIdsByQuery() {
    OrganizationDto org1 = db.organizations().insert();
    OrganizationDto org2 = db.organizations().insert();
    UserDto user1 = insertUser(u -> u.setLogin("login1").setName("Marius").setEmail("email1@email.com"), org1,
org2);
    UserDto user2 = insertUser(u -> u.setLogin("login2").setName("Marie").setEmail("email2@email.com"), org1,
org2);
    ComponentDto project1 = db.components().insertPrivateProject(org1);
    ComponentDto project2 = db.components().insertPrivateProject(org2);
    addProjectPermission(org1, USER, user1, project1);
    addProjectPermission(org1, USER, user2, project1);
    addProjectPermission(org2, USER, user1, project2);
    addProjectPermission(org1, ISSUE_ADMIN, user2, project1);
    addProjectPermission(org2, ISSUE_ADMIN, user2, project2);

    // logins are ordered by user name: user2 ("Marie") then user1 ("Marius")
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(project1.getOrganizationUuid()).setComponentUuid(project1.uuid(
)).withAtLeastOnePermission().build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).containsExactly(user2.getId(), user1.getId());
    query =
PermissionQuery.builder().setOrganizationUuid("anotherOrg").setComponentUuid(project1.uuid()).withAtLeastOn
ePermission().build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).isEmpty();

    // on a project without permissions
    query =
PermissionQuery.builder().setOrganizationUuid(org1.getUuid()).setComponentUuid("missing").withAtLeastOnePer
mission().build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).isEmpty();

    // search all users whose name matches "mar", whatever the permissions
    query = PermissionQuery.builder().setOrganizationUuid(org1.getUuid()).setSearchQuery("mar").build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).containsExactly(user2.getId(), user1.getId());

    // search all users whose name matches "mariu", whatever the permissions
    query = PermissionQuery.builder().setOrganizationUuid(org1.getUuid()).setSearchQuery("mariu").build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).containsExactly(user1.getId());

    // search all users whose name matches "mariu", whatever the permissions

```

```

    query =
PermissionQuery.builder().setOrganizationUuid(org1.getUuid()).setSearchQuery("mariu").setComponentUuid(proje
ct1.uuid()).build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).containsExactly(user1.getId());

    // search all users whose name matches "mariu", whatever the organization
    query = PermissionQuery.builder().setOrganizationUuid("missingOrg").setSearchQuery("mariu").build();
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).isEmpty();
}

```

@Test

```

public void selectUserIdsByQuery_is_paginated() {
    OrganizationDto organization = db.organizations().insert();
    List<Integer> userIds = new ArrayList<>();
    for (int i = 0; i < 10; i++) {
        String name = "user-" + i;
        UserDto user = insertUser(u -> u.setName(name), organization);
        addGlobalPermission(organization, PROVISIONING, user);
        addGlobalPermission(organization, SYSTEM_ADMIN, user);
        userIds.add(user.getId());
    }

    assertThat(underTest.selectUserIdsByQuery(dbSession,
PermissionQuery.builder().setOrganizationUuid(organization.getUuid())
        .setPageSize(3).setPageIndex(1).build()))
        .containsExactly(userIds.get(0), userIds.get(1), userIds.get(2));
    assertThat(underTest.selectUserIdsByQuery(dbSession,
PermissionQuery.builder().setOrganizationUuid(organization.getUuid())
        .setPageSize(2).setPageIndex(3).build()))
        .containsExactly(userIds.get(4), userIds.get(5));
    assertThat(underTest.selectUserIdsByQuery(dbSession,
PermissionQuery.builder().setOrganizationUuid(organization.getUuid())
        .setPageSize(50).setPageIndex(1).build()))
        .hasSize(10);
}

```

@Test

```

public void selectUserIdsByQuery_is_sorted_by_insensitive_name() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(u -> u.setName("user1"), organization);
    addGlobalPermission(organization, PROVISIONING, user1);
    UserDto user3 = insertUser(u -> u.setName("user3"), organization);
    addGlobalPermission(organization, SYSTEM_ADMIN, user3);
    UserDto user2 = insertUser(u -> u.setName("User2"), organization);
    addGlobalPermission(organization, PROVISIONING, user2);

    assertThat(underTest.selectUserIdsByQuery(dbSession,
PermissionQuery.builder().setOrganizationUuid(organization.getUuid()).build()))

```

```

        .containsExactly(user1.getId(), user2.getId(), user3.getId());
    }

    @Test
    public void deleteGlobalPermission() {
        OrganizationDto organization = db.organizations().insert();
        UserDto user1 = insertUser(organization);
        UserDto user2 = insertUser(organization);
        ComponentDto project1 = db.components().insertPrivateProject(organization);
        ComponentDto project2 = db.components().insertPrivateProject(organization);
        addGlobalPermission(organization, "perm1", user1);
        addGlobalPermission(organization, "perm2", user1);
        addProjectPermission(organization, "perm1", user1, project1);
        addProjectPermission(organization, "perm3", user2, project1);
        addProjectPermission(organization, "perm4", user2, project2);

        // user2 does not have global permissions -> do nothing
        underTest.deleteGlobalPermission(dbSession, user2.getId(), "perm1", db.getDefaultOrganization().getUuid());
        assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(5);

        // global permission is not granted -> do nothing
        underTest.deleteGlobalPermission(dbSession, user1.getId(), "notGranted",
            db.getDefaultOrganization().getUuid());
        assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(5);

        // permission is on project -> do nothing
        underTest.deleteGlobalPermission(dbSession, user1.getId(), "perm3", db.getDefaultOrganization().getUuid());
        assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(5);

        // global permission on another organization -> do nothing
        underTest.deleteGlobalPermission(dbSession, user1.getId(), "notGranted", "anotherOrg");
        assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(5);

        // global permission exists -> delete it, but not the project permission with the same name !
        underTest.deleteGlobalPermission(dbSession, user1.getId(), "perm1", organization.getUuid());
        assertThat(db.countSql(dbSession, "select count(id) from user_roles where role='perm1' and resource_id is
            null").isEqualTo(0);
        assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(4);
    }

    @Test
    public void deleteProjectPermission() {
        OrganizationDto organization = db.organizations().insert();
        UserDto user1 = insertUser(organization);
        UserDto user2 = insertUser(organization);
        ComponentDto project1 = db.components().insertPrivateProject(organization);
        ComponentDto project2 = db.components().insertPrivateProject(organization);
        addGlobalPermission(organization, "perm", user1);
    }

```

```

addProjectPermission(organization, "perm", user1, project1);
addProjectPermission(organization, "perm", user1, project2);
addProjectPermission(organization, "perm", user2, project1);

// no such provision -> ignore
underTest.deleteProjectPermission(dbSession, user1.getId(), "anotherPerm", project1.getId());
assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(4);

underTest.deleteProjectPermission(dbSession, user1.getId(), "perm", project1.getId());
assertThatProjectPermissionDoesNotExist(user1, "perm", project1);
assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(3);
}

```

@Test

```

public void deleteProjectPermissions() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    addGlobalPermission(organization, "perm", user1);
    addProjectPermission(organization, "perm", user1, project1);
    addProjectPermission(organization, "perm", user2, project1);
    addProjectPermission(organization, "perm", user1, project2);

    underTest.deleteProjectPermissions(dbSession, project1.getId());
    assertThat(db.countRowsOfTable(dbSession, "user_roles").isEqualTo(2);
    assertThatProjectHasNoPermissions(project1);
}

```

@Test

```

public void selectGlobalPermissionsOfUser() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    UserDto user3 = insertUser(organization);
    OrganizationDto org = db.organizations().insert();
    ComponentDto project = db.components().insertPrivateProject(organization);
    addGlobalPermission(db.getDefaultOrganization(), "perm1", user1);
    addGlobalPermission(org, "perm2", user2);
    addGlobalPermission(org, "perm3", user1);
    addProjectPermission(organization, "perm4", user1, project);
    addProjectPermission(organization, "perm5", user1, project);

    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user1.getId(),
org.getUuid()).containsOnly("perm3"));
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user1.getId(),
db.getDefaultOrganization().getUuid()).containsOnly("perm1"));
}

```

```

    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user1.getId(), "otherOrg")).isEmpty();
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user3.getId(), org.getUuid())).isEmpty();
}

```

@Test

```

public void selectProjectPermissionsOfUser() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    ComponentDto project3 = db.components().insertPrivateProject(organization);
    addGlobalPermission(organization, "perm1", user1);
    addProjectPermission(organization, "perm2", user1, project1);
    addProjectPermission(organization, "perm3", user1, project1);
    addProjectPermission(organization, "perm4", user1, project2);
    addProjectPermission(organization, "perm5", user2, project1);

    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(),
project1.getId())).containsOnly("perm2", "perm3");
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(),
project2.getId())).containsOnly("perm4");
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(), project3.getId())).isEmpty();
}

```

@Test

```

public void selectGroupIdsWithPermissionOnProjectBut_returns_empty_if_project_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    UserDto user = insertUser(organization);
    db.users().insertProjectPermissionOnUser(user, "foo", project);

    assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, 1234, UserRole.USER))
        .isEmpty();
}

```

@Test

```

public void
selectGroupIdsWithPermissionOnProjectBut_returns_only_users_of_projects_which_do_not_have_permission() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    db.users().insertProjectPermissionOnUser(user1, "p1", project);
    db.users().insertProjectPermissionOnUser(user2, "p2", project);

    assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p2"))
        .containsOnly(user1.getId());
}

```

```

assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p1"))
    .containsOnly(user2.getId());
assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p3"))
    .containsOnly(user1.getId(), user2.getId());
}

@Test
public void
selectGroupIdsWithPermissionOnProjectBut_does_not_return_groups_which_have_no_permission_at_all_on_speci
fied_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    db.users().insertProjectPermissionOnUser(user1, "p1", project);
    db.users().insertProjectPermissionOnUser(user2, "p2", project);

    assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p2"))
        .containsOnly(user1.getId());
    assertThat(underTest.selectUserIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p1"))
        .containsOnly(user2.getId());
}

@Test
public void deleteByOrganization_does_not_fail_if_table_is_empty() {
    underTest.deleteByOrganization(dbSession, "some uuid");
    dbSession.commit();
}

@Test
public void deleteByOrganization_does_not_fail_if_organization_has_no_user_permission() {
    OrganizationDto organization = db.organizations().insert();

    underTest.deleteByOrganization(dbSession, organization.getUuid());
    dbSession.commit();
}

@Test
public void deleteByOrganization_deletes_all_user_permission_of_specified_organization() {
    OrganizationDto organization1 = db.organizations().insert();
    OrganizationDto organization2 = db.organizations().insert();
    OrganizationDto organization3 = db.organizations().insert();
    UserDto user1 = insertUser(organization1, organization2, organization3);
    UserDto user2 = insertUser(organization1, organization2, organization3);
    UserDto user3 = insertUser(organization1, organization2, organization3);
    db.users().insertPermissionOnUser(organization1, user1, "foo");
    db.users().insertPermissionOnUser(organization1, user2, "foo");
    db.users().insertPermissionOnUser(organization1, user2, "bar");
}

```

```

db.users().insertPermissionOnUser(organization2, user2, "foo");
db.users().insertPermissionOnUser(organization2, user3, "foo");
db.users().insertPermissionOnUser(organization2, user3, "bar");
db.users().insertPermissionOnUser(organization3, user3, "foo");
db.users().insertPermissionOnUser(organization3, user1, "foo");
db.users().insertPermissionOnUser(organization3, user1, "bar");

underTest.deleteByOrganization(dbSession, organization3.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable(organization1.getUuid(), organization2.getUuid());

underTest.deleteByOrganization(dbSession, organization2.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable(organization1.getUuid());

underTest.deleteByOrganization(dbSession, organization1.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable();
}

@Test
public void delete_permissions_of_an_organization_member() {
    OrganizationDto organization1 = db.organizations().insert();
    OrganizationDto organization2 = db.organizations().insert();
    ComponentDto project = db.components().insertPrivateProject(organization1);
    UserDto user1 = insertUser(organization1, organization2);
    UserDto user2 = insertUser(organization1, organization2);
    // user 1 permissions
    db.users().insertPermissionOnUser(organization1, user1, SCAN);
    db.users().insertPermissionOnUser(organization1, user1, ADMINISTER);
    db.users().insertProjectPermissionOnUser(user1, UserRole.CODEVIEWER, project);
    db.users().insertPermissionOnUser(organization2, user1, SCAN);
    // user 2 permission
    db.users().insertPermissionOnUser(organization1, user2, SCAN);
    db.users().insertProjectPermissionOnUser(user2, UserRole.CODEVIEWER, project);

    underTest.deleteOrganizationMemberPermissions(dbSession, organization1.getUuid(), user1.getId());
    dbSession.commit();

    // user 1 permissions
    assertOrgPermissionsOfUser(user1, organization1);
    assertOrgPermissionsOfUser(user1, organization2, SCAN);
    assertProjectPermissionsOfUser(user1, project);
    // user 2 permissions
    assertOrgPermissionsOfUser(user2, organization1, SCAN);
    assertProjectPermissionsOfUser(user2, project, CODEVIEWER);
}

```

```

@Test
public void deleteByUserId() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    ComponentDto project = db.components().insertPrivateProject(organization);
    db.users().insertPermissionOnUser(user1, SCAN);
    db.users().insertPermissionOnUser(user1, ADMINISTER);
    db.users().insertProjectPermissionOnUser(user1, ADMINISTER_QUALITY_GATES.getKey(), project);
    db.users().insertPermissionOnUser(user2, SCAN);
    db.users().insertProjectPermissionOnUser(user2, ADMINISTER_QUALITY_GATES.getKey(), project);

    underTest.deleteByUserId(dbSession, user1.getId());
    dbSession.commit();

    assertThat(db.select("select user_id as \"userId\", resource_id as \"projectId\", role as \"permission\" from
user_roles"))
        .extracting((row) -> row.get("userId"), (row) -> row.get("projectId"), (row) -> row.get("permission"))
        .containsOnly(tuple(user2.getId().longValue(), null, SCAN.getKey()), tuple(user2.getId().longValue(),
project.getId(), ADMINISTER_QUALITY_GATES.getKey()));
}

```

```

@Test
public void deleteProjectPermissionOfAnyUser_has_no_effect_if_specified_component_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = insertUser(organization);
    db.users().insertPermissionOnUser(organization, user, SCAN);

    int deletedCount = underTest.deleteProjectPermissionOfAnyUser(dbSession, 124L, SCAN.getKey());

    assertThat(deletedCount).isEqualTo(0);
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
}

```

```

@Test
public void
deleteProjectPermissionOfAnyUser_has_no_effect_if_specified_component_has_no_permission_at_all() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = insertUser(organization);
    db.users().insertPermissionOnUser(organization, user, SCAN);
    ComponentDto project = randomPublicOrPrivateProject(organization);

    int deletedCount = underTest.deleteProjectPermissionOfAnyUser(dbSession, project.getId(), SCAN.getKey());

    assertThat(deletedCount).isEqualTo(0);
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
}

```



```

}

@Test
public void
deleteProjectPermissionOfAnyUser_has_no_effect_if_specified_component_does_not_have_specified_permission()
{
    OrganizationDto organization = db.organizations().insert();
    UserDto user = insertUser(organization);
    db.users().insertPermissionOnUser(organization, user, SCAN);
    ComponentDto project = randomPublicOrPrivateProject(organization);
    db.users().insertProjectPermissionOnUser(user, SCAN.getKey(), project);

    int deletedCount = underTest.deleteProjectPermissionOfAnyUser(dbSession, project.getId(), "p1");

    assertThat(deletedCount).isEqualTo(0);
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user.getId(),
project.getId())).containsOnly(SCAN.getKey());
}

@Test
public void
deleteProjectPermissionOfAnyUser_deletes_specified_permission_for_any_user_on_the_specified_component() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = insertUser(organization);
    UserDto user2 = insertUser(organization);
    db.users().insertPermissionOnUser(organization, user1, SCAN);
    db.users().insertPermissionOnUser(organization, user2, SCAN);
    ComponentDto project1 = randomPublicOrPrivateProject(organization);
    ComponentDto project2 = randomPublicOrPrivateProject(organization);
    db.users().insertProjectPermissionOnUser(user1, SCAN.getKey(), project1);
    db.users().insertProjectPermissionOnUser(user2, SCAN.getKey(), project1);
    db.users().insertProjectPermissionOnUser(user1, SCAN.getKey(), project2);
    db.users().insertProjectPermissionOnUser(user2, SCAN.getKey(), project2);
    db.users().insertProjectPermissionOnUser(user2, PROVISION_PROJECTS.getKey(), project2);

    int deletedCount = underTest.deleteProjectPermissionOfAnyUser(dbSession, project1.getId(), SCAN.getKey());

    assertThat(deletedCount).isEqualTo(2);
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user1.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user2.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(), project1.getId())).isEmpty();
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user2.getId(), project1.getId())).isEmpty();
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(),
project2.getId())).containsOnly(SCAN.getKey());
}

```

```

    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user2.getId(),
project2.getId())).containsOnly(SCAN.getKey(), PROVISION_PROJECTS.getKey());

    deletedCount = underTest.deleteProjectPermissionOfAnyUser(dbSession, project2.getId(), SCAN.getKey());

    assertThat(deletedCount).isEqualTo(2);
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user1.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user2.getId(),
organization.getUuid())).containsOnly(SCAN.getKey());
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(), project1.getId())).isEmpty();
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user2.getId(), project1.getId())).isEmpty();
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user1.getId(), project2.getId())).containsOnly();
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user2.getId(),
project2.getId())).containsOnly(PROVISION_PROJECTS.getKey());
}

private ComponentDto randomPublicOrPrivateProject(OrganizationDto organization) {
    return new Random().nextBoolean() ? db.components().insertPrivateProject(organization) :
db.components().insertPublicProject(organization);
}

private UserDto insertUser(Consumer<UserDto> populateUserDto, OrganizationDto... organizations) {
    UserDto user = db.users().insertUser(populateUserDto);
    stream(organizations).forEach(organization -> db.organizations().addMember(organization, user));
    return user;
}

private UserDto insertUser(OrganizationDto... organizations) {
    UserDto user = db.users().insertUser();
    stream(organizations).forEach(organization -> db.organizations().addMember(organization, user));
    return user;
}

private void verifyOrganizationUuidsInTable(String... organizationUuids) {
    assertThat(db.select("select organization_uuid as \"organizationUuid\" from user_roles"))
        .extracting((row) -> (String) row.get("organizationUuid"))
        .containsOnly(organizationUuids);
}

private void expectCount(List<Long> projectIds, CountPerProjectPermission... expected) {
    List<CountPerProjectPermission> got = underTest.countUsersByProjectPermission(dbSession, projectIds);
    assertThat(got).hasSize(expected.length);

    for (CountPerProjectPermission expect : expected) {
        boolean found = got.stream().anyMatch(b -> b.getPermission().equals(expect.getPermission()) &&
b.getCount() == expect.getCount() &&
b.getComponentId() == expect.getComponentId());
    }
}

```

```

    assertThat(found).isTrue();
}
}

private void expectPermissions(PermissionQuery query, Collection<Integer> expectedUserIds,
UserPermissionDto... expectedPermissions) {
    assertThat(underTest.selectUserIdsByQuery(dbSession, query)).containsExactly(expectedUserIds.toArray(new
Integer[0]));
    List<UserPermissionDto> currentPermissions = underTest.selectUserPermissionsByQuery(dbSession, query,
expectedUserIds);
    assertThat(currentPermissions).hasSize(expectedPermissions.length);
    List<Tuple> expectedPermissionsAsTuple = Arrays.stream(expectedPermissions)
        .map(expectedPermission -> tuple(expectedPermission.getUserId(), expectedPermission.getPermission(),
expectedPermission.getComponentId(),
        expectedPermission.getOrganizationUuid()))
        .collect(Collectors.toList());
    assertThat(currentPermissions)
        .extracting(UserPermissionDto::getUserId, UserPermissionDto::getPermission,
UserPermissionDto::getComponentId, UserPermissionDto::getOrganizationUuid)
        .containsOnly(expectedPermissionsAsTuple.toArray(new Tuple[0]));

    // test method "countUsers()"
    long distinctUsers = stream(expectedPermissions).mapToLong(UserPermissionDto::getUserId).distinct().count();
    assertThat((long) underTest.countUsersByQuery(dbSession, query)).isEqualTo(distinctUsers);
}

private UserPermissionDto addGlobalPermission(OrganizationDto org, String permission, UserDto user) {
    UserPermissionDto dto = new UserPermissionDto(org.getUuid(), permission, user.getId(), null);
    underTest.insert(dbSession, dto);
    db.commit();
    return dto;
}

private UserPermissionDto addProjectPermission(OrganizationDto org, String permission, UserDto user,
ComponentDto project) {
    UserPermissionDto dto = new UserPermissionDto(org.getUuid(), permission, user.getId(), project.getId());
    underTest.insert(dbSession, dto);
    db.commit();
    return dto;
}

private void assertThatProjectPermissionDoesNotExist(UserDto user, String permission, ComponentDto project) {
    assertThat(db.countSql(dbSession, "select count(id) from user_roles where role='" + permission + "' and user_id="
+ user.getId() + " and resource_id=" + project.getId()))
        .isEqualTo(0);
}

private void assertThatProjectHasNoPermissions(ComponentDto project) {

```

```

    assertThat(db.countSql(dbSession, "select count(id) from user_roles where resource_id=" +
project.getId()).isEqualTo(0);
}

private void assertOrgPermissionsOfUser(UserDto user, OrganizationDto organization, OrganizationPermission...
permissions) {
    assertThat(underTest.selectGlobalPermissionsOfUser(dbSession, user.getId(), organization.getUuid()).stream()
        .map(OrganizationPermission::fromKey))
        .containsOnly(permissions);
}

private void assertProjectPermissionsOfUser(UserDto user, ComponentDto project, String... permissions) {
    assertThat(underTest.selectProjectPermissionsOfUser(dbSession, user.getId(),
project.getId()).containsOnly(permissions);
}
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import * as React from 'react';
import { PermissionTemplate } from '../..../app/types';
import SimpleModal from '../..../components/controls/SimpleModal';
import DeferredSpinner from '../..../components/common/DeferredSpinner';
import { SubmitButton, ResetButtonLink } from '../..../components/ui/buttons';
import { translate, translateWithParameters } from '../..../helpers/110n';

interface Props {
    onClose: () => void;
    onSubmit: () => Promise<void>;
    permissionTemplate: PermissionTemplate;
}

```

```

export default function DeleteForm({ onClose, onSubmit, permissionTemplate: t }: Props) {
  const header = translate('permission_template.delete_confirm_title');

  return (
    <SimpleModal header={header} onClose={onClose} onSubmit={onSubmit}>
      ({ onCloseClick, onFormSubmit, submitting }) => (
        <form onSubmit={onFormSubmit}>
          <header className="modal-head">
            <h2>{header}</h2>
          </header>

          <div className="modal-body">
            {translateWithParameters(
              'permission_template.do_you_want_to_delete_template_xxx',
              t.name
            )}
          </div>

          <footer className="modal-foot">
            <DeferredSpinner className="spacer-right" loading={submitting} />
            <SubmitButton className="button-red" disabled={submitting}>
              {translate('delete')}
            </SubmitButton>
            <ResetButtonLink disabled={submitting} onClick={onCloseClick}>
              {translate('cancel')}
            </ResetButtonLink>
          </footer>
        </form>
      )}
    </SimpleModal>
  );
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License

```

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.server.platform.db.migration.version.v67;
```

```
import java.sql.SQLException;
```

```
import org.sonar.db.Database;
```

```
import org.sonar.server.platform.db.migration.step.DataChange;
```

```
import org.sonar.server.platform.db.migration.step.MassUpdate;
```

```
public class DropOldLicenses extends DataChange {
```

```
    private static final String LICENSE_HASH_SECURED_SUFFIX = ".licenseHash.secured";
```

```
    private static final String LICENSE_SECURED_SUFFIX = ".license.secured";
```

```
    public DropOldLicenses(Database db) {
```

```
        super(db);
```

```
    }
```

```
    @Override
```

```
    protected void execute(Context context) throws SQLException {
```

```
        MassUpdate massUpdate = context.prepareMassUpdate();
```

```
        massUpdate.select("select prop_key from properties where prop_key like ?")
```

```
            .setString(1, "%" + LICENSE_HASH_SECURED_SUFFIX);
```

```
        massUpdate.update("delete from properties where prop_key = ? or prop_key = ?");
```

```
        massUpdate.rowPluralName("old license properties");
```

```
        massUpdate.execute((row, update) -> {
```

```
            String licenseHashKey = row.getString(1);
```

```
            String licenseKey = licenseHashKey.replace(LICENSE_HASH_SECURED_SUFFIX, "") +
```

```
            LICENSE_SECURED_SUFFIX;
```

```
            update.setString(1, licenseHashKey);
```

```
            update.setString(2, licenseKey);
```

```
            return true;
```

```
        });
```

```
    }
```

```
}
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or
```

```
* modify it under the terms of the GNU Lesser General Public
```

```
* License as published by the Free Software Foundation; either
```

```
* version 3 of the License, or (at your option) any later version.
```

```
*
```

```
* This program is distributed in the hope that it will be useful,
```

```
* but WITHOUT ANY WARRANTY; without even the implied warranty of
```

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission;
```

```
import java.text.MessageFormat;  
import java.util.ArrayList;  
import java.util.Collection;  
import java.util.Iterator;  
import java.util.List;  
import java.util.Set;  
import javax.annotation.CheckForNull;  
import javax.annotation.Nullable;  
import org.apache.commons.lang.StringUtils;  
import org.sonar.api.resources.Qualifiers;  
import org.sonar.api.server.ServerSide;  
import org.sonar.core.permission.ProjectPermissions;  
import org.sonar.db.DbClient;  
import org.sonar.db.DbSession;  
import org.sonar.db.component.ComponentDto;  
import org.sonar.db.organization.DefaultTemplates;  
import org.sonar.db.permission.GroupPermissionDto;  
import org.sonar.db.permission.OrganizationPermission;  
import org.sonar.db.permission.UserPermissionDto;  
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;  
import org.sonar.db.permission.template.PermissionTemplateDto;  
import org.sonar.db.permission.template.PermissionTemplateGroupDto;  
import org.sonar.db.permission.template.PermissionTemplateUserDto;  
import org.sonar.server.es.ProjectIndexer;  
import org.sonar.server.es.ProjectIndexers;  
import org.sonar.server.permission.ws.template.DefaultTemplatesResolver;  
import org.sonar.server.permission.ws.template.DefaultTemplatesResolverImpl;  
import org.sonar.server.user.UserSession;
```

```
import static com.google.common.base.Preconditions.checkNotNull;  
import static java.lang.String.format;  
import static java.util.Arrays.asList;  
import static java.util.Collections.singletonList;  
import static org.sonar.api.security.DefaultGroups.isAnyone;
```

```
@ServerSide  
public class PermissionTemplateService {
```

```
    private final DbClient dbClient;
```

```

private final ProjectIndexers projectIndexers;
private final UserSession userSession;
private final DefaultTemplatesResolver defaultTemplatesResolver;

public PermissionTemplateService(DbClient dbClient, ProjectIndexers projectIndexers, UserSession userSession,
    DefaultTemplatesResolver defaultTemplatesResolver) {
    this.dbClient = dbClient;
    this.projectIndexers = projectIndexers;
    this.userSession = userSession;
    this.defaultTemplatesResolver = defaultTemplatesResolver;
}

public boolean wouldUserHaveScanPermissionWithDefaultTemplate(DbSession dbSession,
    String organizationUuid, @Nullable Integer userId,
    String projectKey, String qualifier) {
    if (userSession.hasPermission(OrganizationPermission.SCAN, organizationUuid)) {
        return true;
    }

    ComponentDto dto = new
ComponentDto().setOrganizationUuid(organizationUuid).setDbKey(projectKey).setQualifier(qualifier);
    PermissionTemplateDto template = findTemplate(dbSession, organizationUuid, dto);
    if (template == null) {
        return false;
    }

    List<String> potentialPermissions =
dbClient.permissionTemplateDao().selectPotentialPermissionsByUserIdAndTemplateId(dbSession, userId,
template.getId());
    return potentialPermissions.contains(OrganizationPermission.SCAN.getKey());
}

/**
 * Apply a permission template to a set of projects. Authorization to administrate these projects
 * is not verified. The projects must exist, so the "project creator" permissions defined in the
 * template are ignored.
 */
public void applyAndCommit(DbSession dbSession, PermissionTemplateDto template,
Collection<ComponentDto> projects) {
    if (projects.isEmpty()) {
        return;
    }

    for (ComponentDto project : projects) {
        copyPermissions(dbSession, template, project, null);
    }
    projectIndexers.commitAndIndex(dbSession, projects, ProjectIndexer.Cause.PERMISSION_CHANGE);
}

```



```

/**
 * Apply the default permission template to project. The project can already exist (so it has permissions) or
 * can be provisioned (so has no permissions yet).
 * @param projectCreatorUserId id of the user who creates the project, only if project is provisioned. He will
 */
public void applyDefault(DbSession dbSession, String organizationUuid, ComponentDto component, @Nullable
Integer projectCreatorUserId) {
    PermissionTemplateDto template = findTemplate(dbSession, organizationUuid, component);
    checkArgument(template != null, "Cannot retrieve default permission template");
    copyPermissions(dbSession, template, component, projectCreatorUserId);
}

public boolean hasDefaultTemplateWithPermissionOnProjectCreator(DbSession dbSession, String
organizationUuid, ComponentDto component) {
    PermissionTemplateDto template = findTemplate(dbSession, organizationUuid, component);
    return hasProjectCreatorPermission(dbSession, template);
}

private boolean hasProjectCreatorPermission(DbSession dbSession, @Nullable PermissionTemplateDto template)
{
    return template != null && dbClient.permissionTemplateCharacteristicDao().selectByTemplateIds(dbSession,
singletonList(template.getId())).stream()
        .anyMatch(PermissionTemplateCharacteristicDto::getWithProjectCreator);
}

private void copyPermissions(DbSession dbSession, PermissionTemplateDto template, ComponentDto project,
@Nullable Integer projectCreatorUserId) {
    dbClient.groupPermissionDao().deleteByRootComponentId(dbSession, project.getId());
    dbClient.userPermissionDao().deleteProjectPermissions(dbSession, project.getId());

    List<PermissionTemplateUserDto> usersPermissions =
dbClient.permissionTemplateDao().selectUserPermissionsByTemplateId(dbSession, template.getId());
    String organizationUuid = template.getOrganizationUuid();
    usersPermissions
        .stream()
        .filter(up -> permissionValidForProject(project, up.getPermission()))
        .forEach(up -> {
            UserPermissionDto dto = new UserPermissionDto(organizationUuid, up.getPermission(), up.getUserId(),
project.getId());
            dbClient.userPermissionDao().insert(dbSession, dto);
        });

    List<PermissionTemplateGroupDto> groupsPermissions =
dbClient.permissionTemplateDao().selectGroupPermissionsByTemplateId(dbSession, template.getId());
    groupsPermissions
        .stream()
        .filter(gp -> groupNameValidForProject(project, gp.getGroupName()))

```

```

.filter(gp -> permissionValidForProject(project, gp.getPermission()))
.forEach(gp -> {
    GroupPermissionDto dto = new GroupPermissionDto()
        .setOrganizationUuid(organizationUuid)
        .setGroupId(isAnyone(gp.getGroupName()) ? null : gp.getGroupId())
        .setRole(gp.getPermission())
        .setResourceId(project.getId());
    dbClient.groupPermissionDao().insert(dbSession, dto);
});

List<PermissionTemplateCharacteristicDto> characteristics =
dbClient.permissionTemplateCharacteristicDao().selectByTemplateIds(dbSession, asList(template.getId()));
if (projectCreatorUserId != null) {
    Set<String> permissionsForCurrentUserAlreadyInDb = usersPermissions.stream()
        .filter(userPermission -> projectCreatorUserId.equals(userPermission.getUserId()))
        .map(PermissionTemplateUserDto::getPermission)
        .collect(java.util.stream.Collectors.toSet());
    characteristics.stream()
        .filter(PermissionTemplateCharacteristicDto::getWithProjectCreator)
        .filter(up -> permissionValidForProject(project, up.getPermission()))
        .filter(characteristic -> !permissionsForCurrentUserAlreadyInDb.contains(characteristic.getPermission()))
        .forEach(c -> {
            UserPermissionDto dto = new UserPermissionDto(organizationUuid, c.getPermission(), projectCreatorUserId,
project.getId());
            dbClient.userPermissionDao().insert(dbSession, dto);
        });
}
}

private static boolean permissionValidForProject(ComponentDto project, String permission) {
    return project.isPrivate() || !ProjectPermissions.PUBLIC_PERMISSIONS.contains(permission);
}

private static boolean groupNameValidForProject(ComponentDto project, String groupName) {
    return !project.isPrivate() || !isAnyone(groupName);
}

/**
 * Return the permission template for the given component. If no template key pattern match then consider default
 * template for the component qualifier.
 */
@CheckForNull
private PermissionTemplateDto findTemplate(DbSession dbSession, String organizationUuid, ComponentDto
component) {
    List<PermissionTemplateDto> allPermissionTemplates = dbClient.permissionTemplateDao().selectAll(dbSession,
organizationUuid, null);
    List<PermissionTemplateDto> matchingTemplates = new ArrayList<>();
    for (PermissionTemplateDto permissionTemplateDto : allPermissionTemplates) {

```

```

String keyPattern = permissionTemplateDto.getKeyPattern();
if (StringUtils.isNotBlank(keyPattern) && component.getDbKey().matches(keyPattern)) {
    matchingTemplates.add(permissionTemplateDto);
}
}
checkAtMostOneMatchForComponentKey(component.getDbKey(), matchingTemplates);
if (matchingTemplates.size() == 1) {
    return matchingTemplates.get(0);
}

DefaultTemplates defaultTemplates = dbClient.organizationDao().getDefaultTemplates(dbSession,
organizationUuid)
    .orElseThrow(() -> new IllegalStateException(
        format("No Default templates defined for organization with uuid '%s'", organizationUuid)));

String qualifier = component.qualifier();
DefaultTemplatesResolverImpl.ResolvedDefaultTemplates resolvedDefaultTemplates =
defaultTemplatesResolver.resolve(defaultTemplates);
switch (qualifier) {
    case Qualifiers.PROJECT:
        return dbClient.permissionTemplateDao().selectByUuid(dbSession, resolvedDefaultTemplates.getProject());
    case Qualifiers.VIEW:
    case Qualifiers.APP:
        String viewDefaultTemplateUuid = resolvedDefaultTemplates.getView().orElseThrow(
            () -> new IllegalStateException("Attempt to create a view when Governance plugin is not installed"));
        return dbClient.permissionTemplateDao().selectByUuid(dbSession, viewDefaultTemplateUuid);
    default:
        throw new IllegalArgumentException(format("Qualifier '%s' is not supported", qualifier));
}
}

private static void checkAtMostOneMatchForComponentKey(String componentKey,
List<PermissionTemplateDto> matchingTemplates) {
    if (matchingTemplates.size() > 1) {
        StringBuilder templatesNames = new StringBuilder();
        for (Iterator<PermissionTemplateDto> it = matchingTemplates.iterator(); it.hasNext(); ) {
            templatesNames.append("\").append(it.next().getName()).append("\");
            if (it.hasNext()) {
                templatesNames.append(", ");
            }
        }
        throw new IllegalStateException(MessageFormat.format(
            "The \"{0}\" key matches multiple permission templates: {1}."
            + " A system administrator must update these templates so that only one of them matches the key.",
            componentKey,
            templatesNames.toString()));
    }
}

```

```

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;

import static java.lang.String.format;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupIdParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupNameParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.template.WsTemplateRef.fromRequest;
import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class AddGroupToTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport support;

```

```

private final UserSession userSession;

public AddGroupToTemplateAction(DbClient dbClient, PermissionWsSupport support, UserSession userSession) {
    this.dbClient = dbClient;
    this.support = support;
    this.userSession = userSession;
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context
        .createAction("add_group_to_template")
        .setPost(true)
        .setSince("5.2")
        .setDescription("Add a group to a permission template.<br /> " +
            "The group id or group name must be provided. <br />" +
            "Requires the following permission: 'Administer System'.")
        .setHandler(this);

    createTemplateParameters(action);
    createProjectPermissionParameter(action);
    createGroupIdParameter(action);
    createGroupNameParameter(action);
}

@Override
public void handle(Request request, Response response) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        String permission = request.mandatoryParam(PARAM_PERMISSION);
        GroupIdOrAnyone groupId = support.findGroup(dbSession, request);
        checkRequest(!SYSTEM_ADMIN.equals(permission) || !groupId.isAnyone(),
            format("It is not possible to add the '%s' permission to the group 'Anyone'.", permission));

        PermissionTemplateDto template = support.findTemplate(dbSession, fromRequest(request));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        if (!groupAlreadyAdded(dbSession, template.getId(), permission, groupId)) {
            dbClient.permissionTemplateDao().insertGroupPermission(dbSession, template.getId(), groupId.getId(),
                permission);
            dbSession.commit();
        }
    }
    response.noContent();
}

private boolean groupAlreadyAdded(DbSession dbSession, long templateId, String permission, GroupIdOrAnyone
group) {
    return dbClient.permissionTemplateDao().hasGroupsWithPermission(dbSession, templateId, permission,

```

```

group.getId());
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission;

import javax.annotation.Nullable;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;

public class GroupPermissionChange extends PermissionChange {

    private final GroupIdOrAnyone groupId;

    public GroupPermissionChange(Operation operation, String permission, @Nullable ProjectId projectId,
        GroupIdOrAnyone groupId) {
        super(operation, groupId.getOrganizationUuid(), permission, projectId);
        this.groupId = groupId;
    }

    public GroupIdOrAnyone getGroupIdOrAnyone() {
        return groupId;
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public

```

* License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.server.permission.ws;
```

```
import java.util.Optional;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.server.permission.GroupPermissionChange;
import org.sonar.server.permission.PermissionChange;
import org.sonar.server.permission.PermissionUpdater;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.user.UserSession;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;
```

```
import static java.util.Arrays.asList;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupIdParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupNameParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
```

```
public class RemoveGroupAction implements PermissionsWsAction {

    public static final String ACTION = "remove_group";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionUpdater permissionUpdater;
    private final PermissionWsSupport support;

    public RemoveGroupAction(DbClient dbClient, UserSession userSession, PermissionUpdater permissionUpdater,
    PermissionWsSupport support) {
        this.dbClient = dbClient;
```

```

this.userSession = userSession;
this.permissionUpdater = permissionUpdater;
this.support = support;
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction(ACTION)
        .setDescription("Remove a permission from a group.<br /> " +
            "This service defaults to global permissions, but can be limited to project permissions by providing project id or
project key.<br /> " +
            "The group id or group name must be provided, not both.<br />" +
            "Requires one of the following permissions:" +
            "<ul>" +
            "<li>'Administer System'</li>" +
            "<li>'Administer' rights on the specified project</li>" +
            "</ul>")
        .setSince("5.2")
        .setPost(true)
        .setHandler(this);

    createPermissionParameter(action);
    createOrganizationParameter(action).setSince("6.2");
    createGroupNameParameter(action);
    createGroupIdParameter(action);
    createProjectParameters(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        GroupIdOrAnyone group = support.findGroup(dbSession, request);
        Optional<ProjectId> projectId = support.findProjectId(dbSession, request);

        checkProjectAdmin(userSession, group.getOrganizationUuid(), projectId);

        PermissionChange change = new GroupPermissionChange(
            PermissionChange.Operation.REMOVE,
            request.mandatoryParam(PARAM_PERMISSION),
            projectId.orElse(null),
            group);
        permissionUpdater.apply(dbSession, asList(change));
    }
    response.noContent();
}
}
/*
* SonarQube

```



```

* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission;

```

```

import java.util.Collection;
import java.util.List;
import java.util.Set;
import org.apache.ibatis.annotations.Param;

```

```

/**

```

```

 * @see AuthorizationDao

```

```

 */

```

```

public interface AuthorizationMapper {

```

```

    Set<String> selectOrganizationPermissions(@Param("organizationUuid") String organizationUuid,
@Param("userId") int userId);

```

```

    Set<String> selectOrganizationPermissionsOfAnonymous(@Param("organizationUuid") String organizationUuid);

```

```

    int countUsersWithGlobalPermissionExcludingGroup(@Param("organizationUuid") String organizationUuid,
@Param("permission") String permission, @Param("excludedGroupId") int excludedGroupId);

```

```

    int countUsersWithGlobalPermissionExcludingUser(@Param("organizationUuid") String organizationUuid,
@Param("permission") String permission,
@Param("excludedUserId") int excludedUserId);

```

```

    int countUsersWithGlobalPermissionExcludingGroupMember(@Param("organizationUuid") String
organizationUuid,
@Param("permission") String permission, @Param("groupId") int groupId, @Param("userId") int userId);

```

```

    int countUsersWithGlobalPermissionExcludingUserPermission(@Param("organizationUuid") String
organizationUuid,
@Param("permission") String permission, @Param("userId") int userId);

```

```

Set<String> selectOrganizationUuidsOfUserWithGlobalPermission(@Param("userId") int userId,
@Param("permission") String permission);

Set<Long> keepAuthorizedProjectIdsForAnonymous(@Param("role") String role, @Param("componentIds")
Collection<Long> componentIds);

Set<Long> keepAuthorizedProjectIdsForUser(@Param("userId") int userId, @Param("role") String role,
@Param("componentIds") Collection<Long> componentIds);

List<Integer> keepAuthorizedUsersForRoleAndProject(@Param("role") String role, @Param("componentId") long
componentId, @Param("userIds") List<Integer> userIds);

Set<String> keepAuthorizedProjectUuidsForUser(@Param("userId") int userId, @Param("permission") String
permission, @Param("projectUuids") Collection<String> projectUuids);

Set<String> keepAuthorizedProjectUuidsForAnonymous(@Param("permission") String permission,
@Param("projectUuids") Collection<String> projectUuids);

Set<String> selectProjectPermissions(@Param("projectUuid") String projectUuid, @Param("userId") long userId);

Set<String> selectProjectPermissionsOfAnonymous(@Param("projectUuid") String projectUuid);

List<String> selectQualityProfileAdministratorLogins(@Param("permission") String permission);

Set<String> keepAuthorizedLoginsOnProject(@Param("logins") List<String> logins, @Param("projectKey")
String projectKey, @Param("permission") String permission);

List<String> selectLoginsWithGlobalPermission(@Param("permission") String permission);
}

```

SonarQube

Copyright (C) 2009-2017 SonarSource SA

mailto:info AT sonarsource DOT com

This product includes software developed at
SonarSource (<http://www.sonarsource.com/>).

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of

```
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
```

```
package org.sonar.server.permission;
```

```
import javax.annotation.concurrent.Immutable;
import org.sonar.db.component.ComponentDto;
import org.sonar.server.permission.ws.ProjectWsRef;
```

```
import static java.util.Objects.requireNonNull;
```

```
/**
```

```
* Reference to a project by its db id or uuid. The field "id" should
* be removed as soon as backend is fully based on uuids.
```

```
*
```

```
* @see ProjectWsRef
```

```
*/
```

```
@Immutable
```

```
public class ProjectId {
```

```
    private final long id;
    private final String uuid;
    private final boolean isPrivate;
```

```
    public ProjectId(ComponentDto project) {
        this.id = requireNonNull(project.getId());
        this.uuid = requireNonNull(project.uuid());
        this.isPrivate = project.isPrivate();
    }
```

```
    public long getId() {
        return id;
    }
```

```
    public String getUuid() {
        return uuid;
    }
```

```
    public boolean isPrivate() {
        return isPrivate;
    }
```

```
}
```

```
/**
```

```
* SonarQube
```

* Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
import * as React from 'react';
import * as PropTypes from 'prop-types';
import { difference } from 'lodash';
import DeleteForm from './DeleteForm';
import Form from './Form';
import {
  setDefaultPermissionTemplate,
  deletePermissionTemplate,
  updatePermissionTemplate
} from '../api/permissions';
import { PermissionTemplate } from '../app/types';
import ActionsDropdown, { ActionsDropdownItem } from '../components/controls/ActionsDropdown';
import QualifierIcon from '../components/icons-components/QualifierIcon';
import { translate } from '../helpers/i10n';

export interface Props {
  fromDetails?: boolean;
  organization?: { isDefault?: boolean; key: string };
  permissionTemplate: PermissionTemplate;
  refresh: () => void;
  topQualifiers: string[];
}

interface State {
  deleteForm: boolean;
  updateModal: boolean;
}

export default class ActionsCell extends React.PureComponent<Props, State> {
  mounted = false;
```

```

static contextTypes = {
  router: PropTypes.object
};

state: State = { deleteForm: false, updateModal: false };

componentDidMount() {
  this.mounted = true;
}

componentWillUnmount() {
  this.mounted = false;
}

handleUpdateClick = () => {
  this.setState({ updateModal: true });
};

handleCloseUpdateModal = () => {
  if (this.mounted) {
    this.setState({ updateModal: false });
  }
};

handleSubmitUpdateModal = (data: {
  description: string;
  name: string;
  projectKeyPattern: string;
}) => {
  return updatePermissionTemplate({ id: this.props.permissionTemplate.id, ...data }).then(
    this.props.refresh
  );
};

handleDeleteClick = () => {
  this.setState({ deleteForm: true });
};

handleCloseDeleteForm = () => {
  if (this.mounted) {
    this.setState({ deleteForm: false });
  }
};

handleDeleteSubmit = () => {
  return deletePermissionTemplate({ templateId: this.props.permissionTemplate.id }).then(() => {
    const pathname = this.props.organization
      ? `~/organizations/${this.props.organization.key}/permission_templates`
  });
};

```

```

        : '/permission_templates';
        this.context.router.replace(pathname);
        this.props.refresh();
    });
};

setDefault = (qualifier: string) => () => {
    setDefaultPermissionTemplate(this.props.permissionTemplate.id, qualifier).then(
        this.props.refresh,
        () => {}
    );
};

getAvailableQualifiers() {
    const topQualifiers =
        this.props.organization && !this.props.organization.isDefault
            ? ['TRK']
            : this.props.topQualifiers;
    return difference(topQualifiers, this.props.permissionTemplate.defaultFor);
}

renderSetDefaultsControl() {
    const availableQualifiers = this.getAvailableQualifiers();

    if (availableQualifiers.length === 0) {
        return null;
    }

    return this.props.topQualifiers.length === 1
        ? this.renderIfSingleTopQualifier(availableQualifiers)
        : this.renderIfMultipleTopQualifiers(availableQualifiers);
}

renderSetDefaultLink(qualifier: string, child: React.ReactNode) {
    return (
        <ActionsDropdownItem
            className="js-set-default"
            data-qualifier={qualifier}
            key={qualifier}
            onClick={this.setDefault(qualifier)}>
            {child}
        </ActionsDropdownItem>
    );
}

renderIfSingleTopQualifier(availableQualifiers: string[]) {
    return availableQualifiers.map(qualifier =>
        this.renderSetDefaultLink(

```

```

    qualifier,
    <span>{translate('permission_templates.set_default')}</span>
  )
);
}

renderIfMultipleTopQualifiers(availableQualifiers: string[]) {
  return availableQualifiers.map(qualifier =>
    this.renderSetDefaultLink(
      qualifier,
      <span>
        {translate('permission_templates.set_default_for')}{' '}
        <QualifierIcon qualifier={qualifier} /> {translate('qualifiers', qualifier)}
      </span>
    )
  );
}

render() {
  const { permissionTemplate: t, organization } = this.props;

  const pathname = organization
    ? `~/organizations/${organization.key}/permission_templates`
    : '/permission_templates';

  return (
    <>
      <ActionsDropdown>
        {this.renderSetDefaultsControl()}

        {!this.props.fromDetails && (
          <ActionsDropdownItem to={{ pathname, query: { id: t.id } }}>
            {translate('edit_permissions')}
          </ActionsDropdownItem>
        )}

        <ActionsDropdownItem className="js-update" onClick={this.handleUpdateClick}>
          {translate('update_details')}
        </ActionsDropdownItem>

        {t.defaultFor.length === 0 && (
          <ActionsDropdownItem
            className="js-delete"
            destructive={true}
            onClick={this.handleDeleteClick}>
            {translate('delete')}
          </ActionsDropdownItem>
        )}
    </>
  );
}

```

```

</ActionsDropdown>

    {this.state.updateModal && (
      <Form
        confirmButtonText={translate('update_verb')}
        header={translate('permission_template.edit_template')}
        onClose={this.handleCloseUpdateModal}
        onSubmit={this.handleSubmitUpdateModal}
        permissionTemplate={t}
      />
    )}

    {this.state.deleteForm && (
      <DeleteForm
        onClose={this.handleCloseDeleteForm}
        onSubmit={this.handleDeleteSubmit}
        permissionTemplate={t}
      />
    )}
  </>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

import org.junit.Test;
import org.sonar.api.web.UserRole;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.component.ComponentDto;

```



```

import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.ServerException;

import static java.lang.String.format;
import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.fail;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.component.ComponentTesting.newDirectory;
import static org.sonar.db.component.ComponentTesting.newFileDto;
import static org.sonar.db.component.ComponentTesting.newModuleDto;
import static org.sonar.db.component.ComponentTesting.newPrivateProjectDto;
import static org.sonar.db.component.ComponentTesting.newSubView;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;

```

```

public class AddGroupActionTest extends BasePermissionWsTest<AddGroupAction> {

```

```

    private static final String A_PROJECT_UUID = "project-uuid";
    private static final String A_PROJECT_KEY = "project-key";

```

```

    @Override

```

```

    protected AddGroupAction buildWsAction() {
        return new AddGroupAction(db.getDbClient(), userSession, newPermissionUpdater(),
            newPermissionWsSupport());
    }

```

```

    @Test

```

```

    public void add_permission_to_group_referenced_by_its_name() {
        GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
        loginAsAdmin(db.getDefaultOrganization());

```

```

        newRequest()
            .setParam(PARAM_GROUP_NAME, "sonar-administrators")

```

```

        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void reference_group_by_its_name_in_organization() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group = db.users().insertGroup(org, "the-group");
    loginAsAdmin(org);

    newRequest()
        .setParam(PARAM_ORGANIZATION, org.getKey())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).containsOnly(PROVISIONING);
}

@Test
public void add_permission_to_group_referenced_by_its_id() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_GROUP_ID, group.getId().toString())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void add_permission_to_project_referenced_by_its_id() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.getDefaultOrganization(),
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, A_PROJECT_UUID)
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
}

```

```

    assertThat(db.users().selectGroupPermissions(group, project)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void add_permission_to_project_referenced_by_its_key() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(db.getDefaultOrganization(),
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_KEY, A_PROJECT_KEY)
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
    assertThat(db.users().selectGroupPermissions(group, project)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void add_with_view_uuid() {
    OrganizationDto organizationDto = db.getDefaultOrganization();
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    ComponentDto view = db.components().insertComponent(new View(organizationDto, "view-
uuid").setDbKey("view-key"));
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, view.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
    assertThat(db.users().selectGroupPermissions(group, view)).containsOnly(SYSTEM_ADMIN);
}

@Test
public void fail_if_project_uuid_is_not_found() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, "not-found")
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)

```

```

        .execute();
    }

    @Test
    public void fail_when_component_is_a_module() {
        ComponentDto module =
        db.components().insertComponent(newModuleDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));

        failIfComponentIsNotAProjectOrView(module);
    }

    @Test
    public void fail_when_component_is_a_directory() {
        ComponentDto file =
        db.components().insertComponent(newDirectory(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), "A/B"));

        failIfComponentIsNotAProjectOrView(file);
    }

    @Test
    public void fail_when_component_is_a_file() {
        ComponentDto file =
        db.components().insertComponent(newFileDto(ComponentTesting.newPrivateProjectDto(db.organizations().insert()), null, "file-uuid"));

        failIfComponentIsNotAProjectOrView(file);
    }

    @Test
    public void fail_when_component_is_a_subview() {
        ComponentDto file =
        db.components().insertComponent(newSubView(ComponentTesting.newView(db.organizations().insert()));

        failIfComponentIsNotAProjectOrView(file);
    }

    private void failIfComponentIsNotAProjectOrView(ComponentDto file) {
        GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
        loginAsAdmin(db.getDefaultOrganization());

        expectedException.expect(BadRequestException.class);
        expectedException.expectMessage("Component '" + file.getDbKey() + "' (id: " + file.uuid() + ") must be a project or a view.");

        newRequest()
            .setParam(PARAM_GROUP_NAME, group.getName())

```

```

        .setParam(PARAM_PROJECT_ID, file.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
    }

@Test
public void adding_a_project_permission_fails_if_project_is_not_set() throws Exception {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    executeRequest(group, UserRole.ISSUE_ADMIN);
}

@Test
public void adding_a_project_permission_fails_if_component_is_not_a_project() {
    OrganizationDto organizationDto = db.getDefaultOrganization();
    GroupDto group = db.users().insertGroup(organizationDto, "sonar-administrators");
    ComponentDto project = db.components().insertComponent(new PrivateProjectDto(organizationDto,
A_PROJECT_UUID).setDbKey(A_PROJECT_KEY));
    ComponentDto file = db.components().insertComponent(ComponentTesting.newFileDto(project, null, "file-
uuid"));
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, file.uuid())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_get_request() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(ServerException.class);

    newRequest()
        .setMethod("GET")
        .setParam(PARAM_GROUP_NAME, "sonar-administrators")
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test

```

```

public void fail_when_group_name_and_group_id_are_missing() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Group name or group id must be provided");

    newRequest()
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .execute();
}

@Test
public void fail_when_permission_is_missing() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .execute();
}

@Test
public void fail_if_not_administrator_of_organization() {
    GroupDto group = db.users().insertGroup();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .execute();
}

@Test
public void fail_if_administrator_of_other_organization_only() {
    OrganizationDto org1 = db.organizations().insert();
    OrganizationDto org2 = db.organizations().insert();
    GroupDto group = db.users().insertGroup(org1, "the-group");
    loginAsAdmin(org2);

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_GROUP_ID, group.getId().toString())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .execute();
}

```

```

}

@Test
public void fail_when_project_uuid_and_project_key_are_provided() {
    GroupDto group = db.users().insertGroup();
    ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(db.organizations().insert()));
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Project id or project key can be provided, not both.");

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, SYSTEM_ADMIN)
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
}

@Test
public void adding_global_permission_fails_if_not_administrator_of_organization() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    // user is administrator of another organization
    userSession.logIn().addPermission(ADMINISTER, "anotherOrg");

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .execute();
}

@Test
public void adding_project_permission_fails_if_not_administrator_of_project() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    ComponentDto project = db.components().insertPrivateProject();
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, PROVISIONING)
        .setParam(PARAM_PROJECT_KEY, project.getDbKey())
        .execute();
}

```

```

/**
 * User is project administrator but not system administrator
 */
@Test
public void adding_project_permission_is_allowed_to_project_administrators() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "sonar-administrators");
    ComponentDto project = db.components().insertPrivateProject();
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();

    assertThat(db.users().selectGroupPermissions(group, project)).containsOnly(ISSUE_ADMIN);
}

@Test
public void fails_when_adding_any_permission_to_group_AnyOne_on_a_private_project() {
    ComponentDto project = db.components().insertPrivateProject();
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    ProjectPermissions.ALL
        .forEach(permission -> {
            try {
                newRequest()
                    .setParam(PARAM_GROUP_NAME, "anyone")
                    .setParam(PARAM_PROJECT_ID, project.uuid())
                    .setParam(PARAM_PERMISSION, permission)
                    .execute();
                fail("a BadRequestException should have been raised for " + permission);
            } catch (BadRequestException e) {
                assertThat(e).hasMessage("No permission can be granted to Anyone on a private component");
            }
        });
}

@Test
public void no_effect_when_adding_USER_permission_to_group_AnyOne_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_GROUP_NAME, "anyone")
        .setParam(PARAM_PROJECT_ID, project.uuid())

```



```

        .setParam(PARAM_PERMISSION, USER)
        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void no_effect_when_adding_CODEVIEWER_permission_to_group_AnyOne_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_GROUP_NAME, "anyone")
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void no_effect_when_adding_USER_permission_to_group_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, USER)
        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void no_effect_when_adding_CODEVIEWER_permission_to_group_on_a_public_project() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertPublicProject(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_GROUP_NAME, group.getName())

```

```

        .setParam(PARAM_PROJECT_ID, project.uuid())
        .setParam(PARAM_PERMISSION, CODEVIEWER)
        .execute();

    assertThat(db.users().selectAnyonePermissions(organization, project)).isEmpty();
}

@Test
public void fail_when_using_branch_db_key() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project key '%s' not found", branch.getDbKey()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_KEY, branch.getDbKey())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();
}

@Test
public void fail_when_using_branch_uuid() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = db.components().insertMainBranch(organization);
    userSession.logIn().addProjectPermission(UserRole.ADMIN, project);
    ComponentDto branch = db.components().insertProjectBranch(project);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage(format("Project id '%s' not found", branch.uuid()));

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_PROJECT_ID, branch.uuid())
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
        .execute();
}

private void executeRequest(GroupDto groupDto, String permission) {
    newRequest()
        .setParam(PARAM_GROUP_NAME, groupDto.getName())

```

```

        .setParam(PARAM_PERMISSION, permission)
        .execute();
    }

}

<dataset>

<!-- user 100 has the role "user" on the project 300 and in group 200 -->
<user_roles id="1"
    user_id="100"
    resource_id="300"
    role="user"
    organization_uuid="org1"/>
<groups_users user_id="100"
    group_id="200"/>
<group_roles id="1"
    group_id="200"
    resource_id="999"
    role="user"
    organization_uuid="org1"/>

<projects organization_uuid="org1"
    id="300"
    uuid="ABCD"
    uuid_path="NOT_USED"
    root_uuid="ABCD"
    project_uuid="ABCD"
    module_uuid="[null]"
    kee="pj-w-snapshot"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="301"
    uuid="BCDE"
    uuid_path="NOT_USED"
    root_uuid="BCDE"
    project_uuid="BCDE"
    module_uuid="[null]"
    kee="pj-w-snapshot1"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="302"
    uuid="CDEF"

```

```
uuid_path="NOT_USED"  
root_uuid="CDEF"  
project_uuid="CDEF"  
module_uuid="[null]"  
kee="pj-w-snapshot2"  
scope="PRJ"  
qualifier="TRK"  
enabled="[true]"  
private="[false]"/>
```

```
<projects organization_uuid="org1"  
id="303"  
uuid="DEFG"  
uuid_path="NOT_USED"  
root_uuid="DEFG"  
project_uuid="DEFG"  
module_uuid="[null]"  
kee="pj-w-snapshot3"  
scope="PRJ"  
qualifier="TRK"  
enabled="[true]"  
private="[false]"/>
```

```
</dataset>
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or  
* modify it under the terms of the GNU Lesser General Public  
* License as published by the Free Software Foundation; either  
* version 3 of the License, or (at your option) any later version.
```

```
*
```

```
* This program is distributed in the hope that it will be useful,  
* but WITHOUT ANY WARRANTY; without even the implied warranty of  
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU  
* Lesser General Public License for more details.
```

```
*
```

```
* You should have received a copy of the GNU Lesser General Public License  
* along with this program; if not, write to the Free Software Foundation,  
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

```
*/
```

```
import React from 'react';  
import PropTypes from 'prop-types';  
import { Link } from 'react-router';  
import Defaults from './Defaults';  
import { PermissionTemplateType } from './propTypes';
```

```

export default class NameCell extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    permissionTemplate: PermissionTemplateType.isRequired
  };

  render() {
    const { permissionTemplate: t, organization } = this.props;

    const pathname = organization
      ? `/_organizations/${organization.key}/permission_templates`
      : '/permission_templates';

    return (
      <td>
        <Link to={{ pathname, query: { id: t.id } }}>
          <strong className="js-name">{t.name}</strong>
        </Link>

        {t.defaultFor.length > 0 && (
          <div className="spacer-top js-defaults">
            <Defaults
              permissionTemplate={this.props.permissionTemplate}
              organization={organization}
            />
          </div>
        )}

        {!!t.description && <div className="spacer-top js-description">{t.description}</div>}

        {!!t.projectKeyPattern && (
          <div className="spacer-top js-project-key-pattern">
            Project Key Pattern: <code>{t.projectKeyPattern}</code>
          </div>
        )}
      </td>
    );
  }
}
{
  "permissionTemplates": [
    {
      "id": "AU-Tpxb--iU5OvuD2FLy",
      "name": "Default template for Projects",
      "description": "Template for new projects",
      "createdAt": "2001-09-09T03:46:40+0200",
      "updatedAt": "2001-09-09T03:46:40+0200",
    }
  ]
}

```

```

"permissions": [
  {
    "key": "admin",
    "usersCount": 0,
    "groupsCount": 1,
    "withProjectCreator": true
  },
  {
    "key": "codeviewer",
    "usersCount": 1,
    "groupsCount": 0,
    "withProjectCreator": false
  },
  {
    "key": "issueadmin",
    "usersCount": 3,
    "groupsCount": 0,
    "withProjectCreator": false
  },
  {
    "key": "scan",
    "usersCount": 0,
    "groupsCount": 0,
    "withProjectCreator": false
  },
  {
    "key": "user",
    "usersCount": 0,
    "groupsCount": 0,
    "withProjectCreator": false
  }
]
},
{
  "id": "AU-TpxcA-iU5OvuD2FLz",
  "name": "Default template for Views",
  "description": "Template for new views",
  "projectKeyPattern": ".*sonar.views.*",
  "createdAt": "2001-09-09T03:46:40+0200",
  "updatedAt": "2004-11-09T12:33:20+0100",
  "permissions": [
    {
      "key": "admin",
      "usersCount": 0,
      "groupsCount": 0,
      "withProjectCreator": false
    },
    {

```

```

    "key": "codeviewer",
    "usersCount": 0,
    "groupsCount": 0,
    "withProjectCreator": false
  },
  {
    "key": "issueadmin",
    "usersCount": 0,
    "groupsCount": 3,
    "withProjectCreator": false
  },
  {
    "key": "scan",
    "usersCount": 0,
    "groupsCount": 0,
    "withProjectCreator": false
  },
  {
    "key": "user",
    "usersCount": 2,
    "groupsCount": 0,
    "withProjectCreator": false
  }
]
}
],
"defaultTemplates": [
  {
    "templateId": "AU-Tpxb--iU5OvuD2FLy",
    "qualifier": "TRK"
  },
  {
    "templateId": "AU-TpxcA-iU5OvuD2FLz",
    "qualifier": "VW"
  }
]
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,

```

* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws;
```

```
import org.junit.Before;  
import org.junit.Test;  
import org.sonar.core.permission.GlobalPermissions;  
import org.sonar.db.organization.OrganizationDto;  
import org.sonar.db.user.GroupDto;  
import org.sonar.db.user.GroupTesting;  
import org.sonar.db.user.UserDto;  
import org.sonar.db.user.UserTesting;  
import org.sonar.server.exceptions.ForbiddenException;  
import org.sonar.server.exceptions.NotFoundException;  
import org.sonar.server.exceptions.UnauthorizedException;  
import org.sonar.server.i18n.I18nRule;  
import org.sonarqube.ws.Permissions;
```

```
import static org.assertj.core.api.Assertions.assertThat;  
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;  
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;  
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;  
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;  
import static org.sonar.db.permission.OrganizationPermission.SCAN;  
import static org.sonar.test.JsonAssert.assertThat;
```

```
public class SearchGlobalPermissionsActionTest extends BasePermissionWsTest<SearchGlobalPermissionsAction>  
{
```

```
    private I18nRule i18n = new I18nRule();
```

```
    @Override
```

```
    protected SearchGlobalPermissionsAction buildWsAction() {  
        return new SearchGlobalPermissionsAction(db.getClient(), userSession, i18n, newPermissionWsSupport());  
    }
```

```
    @Before
```

```
    public void setUp() {  
        initI18nMessages();  
    }
```



```

@Test
public void search_in_organization() {
    OrganizationDto org = db.organizations().insert();
    loginAsAdmin(org);
    GroupDto adminGroup = db.users().insertGroup(newGroup(org, "sonar-admins", "Administrators"));
    GroupDto userGroup = db.users().insertGroup(newGroup(org, "sonar-users", "Users"));
    db.users().insertPermissionOnAnyone(org, SCAN);
    db.users().insertPermissionOnGroup(userGroup, SCAN);
    db.users().insertPermissionOnGroup(userGroup, PROVISIONING);
    db.users().insertPermissionOnGroup(adminGroup, ADMINISTER);
    UserDto user = db.users().insertUser(newUserDto("user", "user-name"));
    UserDto adminUser = db.users().insertUser(newUserDto("admin", "admin-name"));
    db.organizations().addMember(org, user);
    db.organizations().addMember(org, adminUser);
    db.users().insertPermissionOnUser(org, user, PROVISION_PROJECTS);
    db.users().insertPermissionOnUser(org, user, ADMINISTER_QUALITY_PROFILES);
    db.users().insertPermissionOnUser(org, adminUser, ADMINISTER_QUALITY_PROFILES);
    db.users().insertPermissionOnUser(org, user, ADMINISTER_QUALITY_GATES);
    db.users().insertPermissionOnUser(org, adminUser, ADMINISTER_QUALITY_GATES);

    // to be excluded, permission on another organization (the default one)
    db.users().insertPermissionOnUser(db.getDefaultOrganization(), adminUser,
ADMINISTER_QUALITY_GATES);

    String result = newRequest()
        .setParam("organization", org.getKey())
        .execute()
        .getInput();

    assertJson(result).isSimilarTo(getClass().getResource("search_global_permissions-example.json"));
}

@Test
public void search_in_default_organization_by_default() {
    OrganizationDto org = db.organizations().insert();
    loginAsAdmin(org, db.getDefaultOrganization());

    UserDto user = db.users().insertUser();
    db.users().insertPermissionOnUser(db.getDefaultOrganization(), user, SCAN);
    db.organizations().addMember(db.getDefaultOrganization(), user);

    // to be ignored, by default organization is used when searching for permissions
    db.users().insertPermissionOnUser(org, user, ADMINISTER_QUALITY_GATES);
    db.organizations().addMember(org, user);

    Permissions.WsSearchGlobalPermissionsResponse result = newRequest()
        .executeProtobuf(Permissions.WsSearchGlobalPermissionsResponse.class);
}

```

```

assertThat(result.getPermissionsCount()).isEqualTo(GlobalPermissions.ALL.size());
for (Permissions.Permission permission : result.getPermissionsList()) {
    if (permission.getKey().equals(SCAN_EXECUTION)) {
        assertThat(permission.getUsersCount()).isEqualTo(1);
    } else {
        assertThat(permission.getUsersCount()).isEqualTo(0);
    }
}
}
}

```

```

@Test
public void supports_protobuf_response() {
    loginAsAdmin(db.getDefaultOrganization());

    Permissions.WsSearchGlobalPermissionsResponse result = newRequest()
        .executeProtobuf(Permissions.WsSearchGlobalPermissionsResponse.class);

    assertThat(result).isNotNull();
}

```

```

@Test
public void fail_if_not_admin_of_default_organization() {
    userSession.login();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .execute();
}

```

```

@Test
public void fail_if_not_admin_of_specified_organization() {
    OrganizationDto org = db.organizations().insert();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam("organization", org.getKey())
        .execute();
}

```

```

@Test
public void fail_if_not_logged_in() {
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);
}

```

```

    newRequest().execute();
}

@Test
public void fail_if_organization_does_not_exist() {
    expectedException.expect(NotFoundException.class);

    newRequest()
        .setParam("organization", "does_not_exist")
        .execute();
}

private void initI18nMessages() {
    i18n.put("global_permissions.admin", "Administer System");
    i18n.put("global_permissions.admin.desc", "Ability to perform all administration functions for the instance: " +
        "global configuration and personalization of default dashboards.");
    i18n.put("global_permissions.profileadmin", "Administer Quality Profiles");
    i18n.put("global_permissions.profileadmin.desc", "Ability to perform any action on the quality profiles.");
    i18n.put("global_permissions.gateadmin", "Administer Quality Gates");
    i18n.put("global_permissions.gateadmin.desc", "Ability to perform any action on the quality gates.");
    i18n.put("global_permissions.scan", "Execute Analysis");
    i18n.put("global_permissions.scan.desc", "Ability to execute analyses, and to get all settings required to perform
the analysis, " +
        "even the secured ones like the scm account password, the jira account password, and so on.");
    i18n.put("global_permissions.provisioning", "Create Projects");
    i18n.put("global_permissions.provisioning.desc", "Ability to initialize project structure before first analysis.");
}

private static UserDto newUserDto(String login, String name) {
    return UserTesting.newUserDto().setLogin(login).setName(name).setActive(true);
}

private static GroupDto newGroup(OrganizationDto org, String name, String description) {
    return
GroupTesting.newGroupDto().setName(name).setDescription(description).setOrganizationUuid(org.getUuid());
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*

```

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.server.permission.ws.template;
```

```
import org.sonar.api.server.ws.Request;
```

```
import org.sonar.api.server.ws.Response;
```

```
import org.sonar.api.server.ws.WebService;
```

```
import org.sonar.db.DbClient;
```

```
import org.sonar.db.DbSession;
```

```
import org.sonar.db.permission.template.PermissionTemplateDto;
```

```
import org.sonar.server.permission.ws.PermissionWsSupport;
```

```
import org.sonar.server.permission.ws.PermissionsWsAction;
```

```
import org.sonar.server.user.UserSession;
```

```
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;
```

```
import static com.google.common.base.Preconditions.checkNotNull;
```

```
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
```

```
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupIdParameter;
```

```
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupNameParameter;
```

```
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
```

```
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
```

```
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
```

```
public class RemoveGroupFromTemplateAction implements PermissionsWsAction {
```

```
    private final DbClient dbClient;
```

```
    private final PermissionWsSupport wsSupport;
```

```
    private final UserSession userSession;
```

```
    public RemoveGroupFromTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport, UserSession  
userSession) {
```

```
        this.dbClient = dbClient;
```

```
        this.wsSupport = wsSupport;
```

```
        this.userSession = userSession;
```

```
    }
```

```
    @Override
```

```
    public void define(WebService.NewController context) {
```

```
        WebService.NewAction action = context
```

```
            .createAction("remove_group_from_template")
```

```
            .setPost(true)
```

```
            .setSince("5.2")
```

```

        .setDescription("Remove a group from a permission template.<br /> " +
            "The group id or group name must be provided. <br />" +
            "Requires the following permission: 'Administer System'.")
        .setHandler(this);

createTemplateParameters(action);
createProjectPermissionParameter(action);
createGroupIdParameter(action);
createGroupNameParameter(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        String permission = request.mandatoryParam(PARAM_PERMISSION);
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, WsTemplateRef.fromRequest(request));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());
        GroupIdOrAnyone groupId = wsSupport.findGroup(dbSession, request);
        checkArgument(groupId.getOrganizationUuid().equals(template.getOrganizationUuid()), "Group and template
are on different organizations");

        dbClient.permissionTemplateDao().deleteGroupPermission(dbSession, template.getId(), groupId.getId(),
permission);
        dbSession.commit();
    }
    response.noContent();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

```

```

import com.google.common.collect.Table;
import java.util.List;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.template.DefaultTemplatesResolver.ResolvedDefaultTemplates;

import static com.google.common.base.MoreObjects.firstNonNull;
import static com.google.common.base.Preconditions.checkNotNull;
import static com.google.common.collect.ImmutableList.copyOf;
import static com.google.common.collect.ImmutableTable.copyOf;

class SearchTemplatesData {
    private final List<PermissionTemplateDto> templates;
    private final ResolvedDefaultTemplates defaultTemplates;
    private final Table<Long, String, Integer> userCountByTemplateIdAndPermission;
    private final Table<Long, String, Integer> groupCountByTemplateIdAndPermission;
    private final Table<Long, String, Boolean> withProjectCreatorByTemplateIdAndPermission;

    private SearchTemplatesData(Builder builder) {
        this.templates = copyOf(builder.templates);
        this.defaultTemplates = builder.defaultTemplates;
        this.userCountByTemplateIdAndPermission = copyOf(builder.userCountByTemplateIdAndPermission);
        this.groupCountByTemplateIdAndPermission = copyOf(builder.groupCountByTemplateIdAndPermission);
        this.withProjectCreatorByTemplateIdAndPermission =
copyOf(builder.withProjectCreatorByTemplateIdAndPermission);
    }

    public static Builder builder() {
        return new Builder();
    }

    public List<PermissionTemplateDto> templates() {
        return templates;
    }

    public ResolvedDefaultTemplates defaultTemplates() {
        return defaultTemplates;
    }

    public int userCount(long templateId, String permission) {
        return firstNonNull(userCountByTemplateIdAndPermission.get(templateId, permission), 0);
    }

    public int groupCount(long templateId, String permission) {
        return firstNonNull(groupCountByTemplateIdAndPermission.get(templateId, permission), 0);
    }

    public boolean withProjectCreator(long templateId, String permission) {

```

```

return firstNonNull(withProjectCreatorByTemplateIdAndPermission.get(templateId, permission), false);
}

public static class Builder {
    private List<PermissionTemplateDto> templates;
    private ResolvedDefaultTemplates defaultTemplates;
    private Table<Long, String, Integer> userCountByTemplateIdAndPermission;
    private Table<Long, String, Integer> groupCountByTemplateIdAndPermission;
    private Table<Long, String, Boolean> withProjectCreatorByTemplateIdAndPermission;

    private Builder() {
        // prevents instantiation outside main class
    }

    public SearchTemplatesData build() {
        checkState(templates != null);
        checkState(defaultTemplates != null);
        checkState(userCountByTemplateIdAndPermission != null);
        checkState(groupCountByTemplateIdAndPermission != null);
        checkState(withProjectCreatorByTemplateIdAndPermission != null);

        return new SearchTemplatesData(this);
    }

    public Builder templates(List<PermissionTemplateDto> templates) {
        this.templates = templates;
        return this;
    }

    public Builder defaultTemplates(ResolvedDefaultTemplates defaultTemplates) {
        this.defaultTemplates = defaultTemplates;
        return this;
    }

    public Builder userCountByTemplateIdAndPermission(Table<Long, String, Integer>
userCountByTemplateIdAndPermission) {
        this.userCountByTemplateIdAndPermission = userCountByTemplateIdAndPermission;
        return this;
    }

    public Builder groupCountByTemplateIdAndPermission(Table<Long, String, Integer>
groupCountByTemplateIdAndPermission) {
        this.groupCountByTemplateIdAndPermission = groupCountByTemplateIdAndPermission;
        return this;
    }

    public Builder withProjectCreatorByTemplateIdAndPermission(Table<Long, String, Boolean>
withProjectCreatorByTemplateIdAndPermission) {

```

```

        this.withProjectCreatorByTemplateIdAndPermission = withProjectCreatorByTemplateIdAndPermission;
        return this;
    }
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Optional;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.permission.ws.BasePermissionWsTest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.mockito.Mockito.spy;
import static org.mockito.Mockito.when;
import static org.sonar.core.permission.GlobalPermissions.QUALITY_GATE_ADMIN;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class AddProjectCreatorToTemplateActionTest extends
BasePermissionWsTest<AddProjectCreatorToTemplateAction> {

```



```

private System2 system = spy(System2.INSTANCE);
private PermissionTemplateDto template;

@Override
protected AddProjectCreatorToTemplateAction buildWsAction() {
    return new AddProjectCreatorToTemplateAction(db.getClient(), newPermissionWsSupport(), userSession,
system);
}

@Before
public void setUp() {
    template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
    when(system.now()).thenReturn(2_000_000_000L);
}

@Test
public void insert_row_when_no_template_permission() {
    loginAsAdmin(db.getDefaultOrganization());

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getId())
        .execute();

    assertThatProjectCreatorIsPresentFor(UserRole.ADMIN, template.getId());
}

@Test
public void update_row_when_existing_template_permission() {
    loginAsAdmin(db.getDefaultOrganization());
    PermissionTemplateCharacteristicDto characteristic =
db.getClient().permissionTemplateCharacteristicDao().insert(db.getSession(),
    new PermissionTemplateCharacteristicDto()
        .setTemplateId(template.getId())
        .setPermission(UserRole.USER)
        .setWithProjectCreator(false)
        .setCreatedAt(1_000_000_000L)
        .setUpdatedAt(1_000_000_000L));
    db.commit();
    when(system.now()).thenReturn(3_000_000_000L);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.USER)
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .execute();

    assertThatProjectCreatorIsPresentFor(UserRole.USER, template.getId());
}

```

```
PermissionTemplateCharacteristicDto reloaded = reload(characteristic);
assertThat(reloaded.getCreatedAt()).isEqualTo(1_000_000_000L);
assertThat(reloaded.getUpdatedAt()).isEqualTo(3_000_000_000L);
}
```

```
@Test
public void fail_when_template_does_not_exist() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, "42")
        .execute();
}
```

```
@Test
public void fail_if_permission_is_not_a_project_permission() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, QUALITY_GATE_ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();
}
```

```
@Test
public void fail_if_not_admin_of_default_organization() {
    userSession.logIn().addPermission(ADMINISTER_QUALITY_GATES, db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();
}
```

```
private void assertThatProjectCreatorIsPresentFor(String permission, long templateId) {
    Optional<PermissionTemplateCharacteristicDto> templatePermission =
    db.getClient().permissionTemplateCharacteristicDao().selectByPermissionAndTemplateId(db.getSession(),
    permission,
    templateId);
    assertThat(templatePermission).isPresent();
    assertThat(templatePermission.get().getWithProjectCreator()).isTrue();
}
```

```

}

private PermissionTemplateCharacteristicDto reload(PermissionTemplateCharacteristicDto characteristic) {
    return
    db.getClient().permissionTemplateCharacteristicDao().selectByPermissionAndTemplateId(db.getSession(),
    characteristic.getPermission(), characteristic.getTemplateId()).get();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import org.junit.Before;
import org.junit.Rule;
import org.junit.rules.ExpectedException;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.utils.internal.AlwaysIncreasingSystem2;
import org.sonar.db.DbClient;
import org.sonar.db.DbTester;
import org.sonar.db.component.ResourceTypesRule;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.component.ComponentFinder;
import org.sonar.server.es.EsTester;
import org.sonar.server.es.ProjectIndexersImpl;
import org.sonar.server.organization.TestDefaultOrganizationProvider;
import org.sonar.server.permission.GroupPermissionChanger;
import org.sonar.server.permission.PermissionUpdater;
import org.sonar.server.permission.UserPermissionChanger;
import org.sonar.server.permission.index.FooIndexDefinition;
import org.sonar.server.permission.index.PermissionIndexer;

```

```

import org.sonar.server.testers.UserSessionRule;
import org.sonar.server.usergroups.DefaultGroupFinder;
import org.sonar.server.usergroups.ws.GroupWsSupport;
import org.sonar.server.ws.TestRequest;
import org.sonar.server.ws.WsActionTester;

import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;

public abstract class BasePermissionWsTest<A extends PermissionsWsAction> {

    @Rule
    public DbTester db = DbTester.create(new AlwaysIncreasingSystem2());

    @Rule
    public EsTester es = EsTester.createCustom(new FooIndexDefinition());

    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    private TestDefaultOrganizationProvider defaultOrganizationProvider =
TestDefaultOrganizationProvider.from(db);
    protected UserSessionRule userSession = UserSessionRule.standalone();
    protected WsActionTester wsTester;

    @Before
    public void initWsTester() {
        wsTester = new WsActionTester(buildWsAction());
    }

    protected abstract A buildWsAction();

    protected GroupWsSupport newGroupWsSupport() {
        return new GroupWsSupport(db.getClient(), defaultOrganizationProvider, new
DefaultGroupFinder(db.getClient()));
    }

    protected PermissionWsSupport newPermissionWsSupport() {
        DbClient dbClient = db.getClient();
        return new PermissionWsSupport(dbClient, new ComponentFinder(dbClient, newRootResourceTypes()),
newGroupWsSupport());
    }

    protected ResourceTypesRule newRootResourceTypes() {
        return new ResourceTypesRule().setRootQualifiers(Qualifiers.PROJECT, Qualifiers.VIEW, Qualifiers.APP);
    }

    protected PermissionUpdater newPermissionUpdater() {

```

```

return new PermissionUpdater(
    new ProjectIndexersImpl(new PermissionIndexer(db.getDbClient(), es.client()),
        new UserPermissionChanger(db.getDbClient()),
        new GroupPermissionChanger(db.getDbClient()));
}

protected TestRequest newRequest() {
    return wsTester.newRequest().setMethod("POST");
}

protected void loginAsAdmin(OrganizationDto org, OrganizationDto... otherOrgs) {
    userSession.logIn().addPermission(ADMINISTER, org);
    for (OrganizationDto otherOrg : otherOrgs) {
        userSession.addPermission(ADMINISTER, otherOrg);
    }
}

protected PermissionTemplateDto selectTemplateInDefaultOrganization(String name) {
    return db.getDbClient().permissionTemplateDao().selectByName(db.getSession(),
db.getDefaultOrganization().getUuid(), name);
}

protected PermissionTemplateDto addTemplate(OrganizationDto organizationDto) {
    PermissionTemplateDto dto = newPermissionTemplateDto()
        .setOrganizationUuid(organizationDto.getUuid());
    db.getDbClient().permissionTemplateDao().insert(db.getSession(), dto);
    db.commit();
    return dto;
}

protected PermissionTemplateDto addTemplateToDefaultOrganization() {
    return addTemplate(db.getDefaultOrganization());
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.

```

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import * as React from 'react';
import DeferredSpinner from '../components/common/DeferredSpinner';
import SimpleModal from '../components/controls/SimpleModal';
import { translate } from '../helpers/i10n';
import { SubmitButton, ResetButtonLink } from '../components/ui/buttons';

interface Props {
  confirmButtonText: string;
  header: string;
  permissionTemplate?: { description?: string; name: string; projectKeyPattern?: string };
  onClose: () => void;
  onSubmit: (
    data: { description: string; name: string; projectKeyPattern: string }
  ) => Promise<void>;
}

interface State {
  description: string;
  name: string;
  projectKeyPattern: string;
}

export default class Form extends React.PureComponent<Props, State> {
  mounted = false;

  constructor(props: Props) {
    super(props);
    this.state = {
      description: (props.permissionTemplate && props.permissionTemplate.description) || "",
      name: (props.permissionTemplate && props.permissionTemplate.name) || "",
      projectKeyPattern:
        (props.permissionTemplate && props.permissionTemplate.projectKeyPattern) || ""
    };
  }

  handleSubmit = () => {
    return this.props
      .onSubmit({
        description: this.state.description,
        name: this.state.name,
        projectKeyPattern: this.state.projectKeyPattern
      })
      .then(this.props.onClose);
  }
}

```

```

};

handleNameChange = (event: React.ChangeEvent<HTMLInputElement>) => {
  this.setState({ name: event.currentTarget.value });
};

handleDescriptionChange = (event: React.ChangeEvent<HTMLTextAreaElement>) => {
  this.setState({ description: event.currentTarget.value });
};

handleProjectKeyPatternChange = (event: React.ChangeEvent<HTMLInputElement>) => {
  this.setState({ projectKeyPattern: event.currentTarget.value });
};

render() {
  return (
    <SimpleModal
      header={this.props.header}
      onClose={this.props.onClose}
      onSubmit={this.handleSubmit}>
      ({ onCloseClick, onFormSubmit, submitting }) => (
        <form id="permission-template-form" onSubmit={onFormSubmit}>
          <header className="modal-head">
            <h2>{this.props.header}</h2>
          </header>

          <div className="modal-body">
            <div className="modal-field">
              <label htmlFor="permission-template-name">
                {translate('name')}
                <em className="mandatory">*</em>
              </label>
              <input
                autoFocus={true}
                id="permission-template-name"
                maxLength={256}
                name="name"
                onChange={this.handleNameChange}
                required={true}
                type="text"
                value={this.state.name}
              />
            </div>
            <div className="modal-field-description">{translate('should_be_unique')}</div>
          </div>

          <div className="modal-field">
            <label htmlFor="permission-template-description">{translate('description')}</label>
            <textarea

```

```

        id="permission-template-description"
        name="description"
        onChange={ this.handleDescriptionChange }
        value={ this.state.description }
    />
</div>

<div className="modal-field">
    <label htmlFor="permission-template-project-key-pattern">
        { translate('permission_template.key_pattern') }
    </label>
    <input
        id="permission-template-project-key-pattern"
        maxLength={ 500 }
        name="projectKeyPattern"
        onChange={ this.handleProjectKeyPatternChange }
        type="text"
        value={ this.state.projectKeyPattern }
    />
    <div className="modal-field-description">
        { translate('permission_template.key_pattern.description') }
    </div>
</div>
</div>

<footer className="modal-foot">
    <DeferredSpinner className="spacer-right" loading={ submitting } />
    <SubmitButton disabled={ submitting } id="permission-template-submit">
        { this.props.confirmButtonText }
    </SubmitButton>
    <ResetButtonLink
        disabled={ submitting }
        id="permission-template-cancel"
        onClick={ onCloseClick }>
        { translate('cancel') }
    </ResetButtonLink>
</footer>
</form>
    )}
</SimpleModal>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*

```



```
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
```

```
package org.sonar.server.permission;
```

```
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.GroupPermissionDto;
import org.sonar.db.permission.OrganizationPermission;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;

import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.fail;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
```

```
public class GroupPermissionChangerTest {

    @Rule
    public DbTester db = DbTester.create(System2.INSTANCE);
    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    private GroupPermissionChanger underTest = new GroupPermissionChanger(db.getDbClient());
```

```

private OrganizationDto org;
private GroupDto group;
private ComponentDto privateProject;
private ComponentDto publicProject;

@Before
public void setUp() throws Exception {
    org = db.organizations().insert();
    group = db.users().insertGroup(org, "a-group");
    privateProject = db.components().insertPrivateProject(org);
    publicProject = db.components().insertPublicProject(org);
}

@Test
public void apply_adds_organization_permission_to_group() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD,
GlobalPermissions.QUALITY_GATE_ADMIN, null, groupId));

    assertThat(db.users().selectGroupPermissions(group,
null)).containsOnly(GlobalPermissions.QUALITY_GATE_ADMIN);
}

@Test
public void apply_adds_organization_permission_to_group_AnyOne() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD,
GlobalPermissions.QUALITY_GATE_ADMIN, null, groupId));

    assertThat(db.users().selectAnyonePermissions(org,
null)).containsOnly(GlobalPermissions.QUALITY_GATE_ADMIN);
}

@Test
public void
apply_fails_with_BadRequestException_when_adding_any_permission_to_group_AnyOne_on_private_project() {
    GroupIdOrAnyone anyOneGroupId = GroupIdOrAnyone.forAnyone(org.getUuid());
    ProjectPermissions.ALL
        .forEach(perm -> {
            try {
                apply(new GroupPermissionChange(PermissionChange.Operation.ADD, perm, new ProjectId(privateProject),
anyOneGroupId));
                fail("a BadRequestException should have been thrown");
            } catch (BadRequestException e) {
                assertThat(e).hasMessage("No permission can be granted to Anyone on a private component");
            }
        })
}

```

```

    });
}

@Test
public void apply_has_no_effect_when_removing_any_permission_to_group_AnyOne_on_private_project() {
    ProjectPermissions.ALL
        .forEach(this::unsafeInsertProjectPermissionOnAnyone);

    GroupIdOrAnyone anyOneGroupId = GroupIdOrAnyone.forAnyone(org.getUuid());
    ProjectPermissions.ALL
        .forEach(perm -> {
            apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, perm, new
                ProjectId(privateProject), anyOneGroupId));

            assertThat(db.users().selectAnyonePermissions(org, privateProject)).contains(perm);
        });
}

@Test
public void apply_adds_permission_USER_to_group_on_private_project() {
    applyAddsPermissionToGroupOnPrivateProject(UserRole.USER);
}

@Test
public void apply_adds_permission_CODEVIEWER_to_group_on_private_project() {
    applyAddsPermissionToGroupOnPrivateProject(UserRole.CODEVIEWER);
}

@Test
public void apply_adds_permission_ADMIN_to_group_on_private_project() {
    applyAddsPermissionToGroupOnPrivateProject(UserRole.ADMIN);
}

@Test
public void apply_adds_permission_ISSUE_ADMIN_to_group_on_private_project() {
    applyAddsPermissionToGroupOnPrivateProject(UserRole.ISSUE_ADMIN);
}

@Test
public void apply_adds_permission_SCAN_EXECUTION_to_group_on_private_project() {
    applyAddsPermissionToGroupOnPrivateProject(GlobalPermissions.SCAN_EXECUTION);
}

private void applyAddsPermissionToGroupOnPrivateProject(String permission) {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, permission, new
        ProjectId(privateProject), groupId));
}

```

```
assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
assertThat(db.users().selectGroupPermissions(group, privateProject)).containsOnly(permission);
}
```

```
@Test
public void apply_removes_permission_USER_from_group_on_private_project() {
    applyRemovesPermissionFromGroupOnPrivateProject(UserRole.USER);
}
```

```
@Test
public void apply_removes_permission_CODEVIEWER_from_group_on_private_project() {
    applyRemovesPermissionFromGroupOnPrivateProject(UserRole.CODEVIEWER);
}
```

```
@Test
public void apply_removes_permission_ADMIN_from_on_private_project() {
    applyRemovesPermissionFromGroupOnPrivateProject(UserRole.ADMIN);
}
```

```
@Test
public void apply_removes_permission_ISSUE_ADMIN_from_on_private_project() {
    applyRemovesPermissionFromGroupOnPrivateProject(UserRole.ISSUE_ADMIN);
}
```

```
@Test
public void apply_removes_permission_SCAN_EXECUTION_from_on_private_project() {
    applyRemovesPermissionFromGroupOnPrivateProject(GlobalPermissions.SCAN_EXECUTION);
}
```

```
private void applyRemovesPermissionFromGroupOnPrivateProject(String permission) {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertProjectPermissionOnGroup(group, permission, privateProject);
```

```
    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, permission, new
ProjectId(privateProject), groupId));
```

```
    assertThat(db.users().selectGroupPermissions(group, privateProject)).containsOnly(permission);
}
```

```
@Test
public void apply_has_no_effect_when_adding_USER_permission_to_group_AnyOne_on_a_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());
```

```
    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, UserRole.USER, new
ProjectId(publicProject), groupId));
```

```
    assertThat(db.users().selectAnyonePermissions(org, publicProject)).isEmpty();
```

```

}

@Test
public void
apply_has_no_effect_when_adding_CODEVIEWER_permission_to_group_AnyOne_on_a_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, UserRole.CODEVIEWER, new
ProjectId(publicProject), groupId));

    assertThat(db.users().selectAnyonePermissions(org, publicProject)).isEmpty();
}

@Test
public void
apply_fails_with_BadRequestException_when_adding_permission_ADMIN_to_group_AnyOne_on_a_public_proje
ct() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("It is not possible to add the 'admin' permission to group 'Anyone'");

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, UserRole.ADMIN, new
ProjectId(publicProject), groupId));
}

@Test
public void apply_adds_permission_ISSUE_ADMIN_to_group_AnyOne_on_a_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD, UserRole.ISSUE_ADMIN, new
ProjectId(publicProject), groupId));

    assertThat(db.users().selectAnyonePermissions(org, publicProject)).containsOnly(UserRole.ISSUE_ADMIN);
}

@Test
public void apply_adds_permission_SCAN_EXECUTION_to_group_AnyOne_on_a_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD,
GlobalPermissions.SCAN_EXECUTION, new ProjectId(publicProject), groupId));

    assertThat(db.users().selectAnyonePermissions(org,
publicProject)).containsOnly(GlobalPermissions.SCAN_EXECUTION);
}

@Test

```

```

public void
apply_fails_with_BadRequestException_when_removing_USER_permission_from_group_AnyOne_on_a_public_p
roject() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission user can't be removed from a public component");

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.USER, new
ProjectId(publicProject), groupId));
}

@Test
public void
apply_fails_with_BadRequestException_when_removing_CODEVIEWER_permission_from_group_AnyOne_on_a
_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.CODEVIEWER, new
ProjectId(publicProject), groupId));
}

@Test
public void apply_removes_ADMIN_permission_from_group_AnyOne_on_a_public_project() {
    applyRemovesPermissionFromGroupAnyOneOnAPublicProject(UserRole.ADMIN);
}

@Test
public void apply_removes_ISSUE_ADMIN_permission_from_group_AnyOne_on_a_public_project() {
    applyRemovesPermissionFromGroupAnyOneOnAPublicProject(UserRole.ISSUE_ADMIN);
}

@Test
public void apply_removes_SCAN_EXECUTION_permission_from_group_AnyOne_on_a_public_project() {
    applyRemovesPermissionFromGroupAnyOneOnAPublicProject(GlobalPermissions.SCAN_EXECUTION);
}

private void applyRemovesPermissionFromGroupAnyOneOnAPublicProject(String permission) {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(org.getUuid());
    db.users().insertProjectPermissionOnAnyone(permission, publicProject);

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, permission, new
ProjectId(publicProject), groupId));

    assertThat(db.users().selectAnyonePermissions(org, publicProject)).isEmpty();
}

```

```

}

@Test
public void
apply_fails_with_BadRequestException_when_removing_USER_permission_from_a_group_on_a_public_project()
{
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission user can't be removed from a public component");

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.USER, new
ProjectId(publicProject), groupId));
}

@Test
public void
apply_fails_with_BadRequestException_when_removing_CODEVIEWER_permission_from_a_group_on_a_public
_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.CODEVIEWER, new
ProjectId(publicProject), groupId));
}

@Test
public void add_permission_to_anyone() {
    OrganizationDto defaultOrganization = db.getDefaultOrganization();
    GroupIdOrAnyone groupId = GroupIdOrAnyone.forAnyone(defaultOrganization.getUuid());

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD,
GlobalPermissions.QUALITY_GATE_ADMIN, null, groupId));

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
    assertThat(db.users().selectAnyonePermissions(defaultOrganization,
null)).containsOnly(GlobalPermissions.QUALITY_GATE_ADMIN);
}

@Test
public void do_nothing_when_adding_permission_that_already_exists() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertPermissionOnGroup(group, ADMINISTER_QUALITY_GATES);

    apply(new GroupPermissionChange(PermissionChange.Operation.ADD,
ADMINISTER_QUALITY_GATES.getKey(), null, groupId));
}

```

```

    assertThat(db.users().selectGroupPermissions(group,
null)).containsOnly(ADMINISTER_QUALITY_GATES.getKey());
}

@Test
public void fail_to_add_global_permission_but_SCAN_and_ADMIN_on_private_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    OrganizationPermission.all()
        .map(OrganizationPermission::getKey)
        .filter(perm -> !UserRole.ADMIN.equals(perm) && !GlobalPermissions.SCAN_EXECUTION.equals(perm))
        .forEach(perm -> {
            try {
                apply(new GroupPermissionChange(PermissionChange.Operation.ADD, perm, new ProjectId(privateProject),
groupId));
                fail("a BadRequestException should have been thrown for permission " + perm);
            } catch (BadRequestException e) {
                assertThat(e).hasMessage("Invalid project permission " + perm + ". Valid values are [admin, codeviewer,
issueadmin, scan, user]");
            }
        });
}

@Test
public void fail_to_add_global_permission_but_SCAN_and_ADMIN_on_public_project() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    OrganizationPermission.all()
        .map(OrganizationPermission::getKey)
        .filter(perm -> !UserRole.ADMIN.equals(perm) && !GlobalPermissions.SCAN_EXECUTION.equals(perm))
        .forEach(perm -> {
            try {
                apply(new GroupPermissionChange(PermissionChange.Operation.ADD, perm, new ProjectId(publicProject),
groupId));
                fail("a BadRequestException should have been thrown for permission " + perm);
            } catch (BadRequestException e) {
                assertThat(e).hasMessage("Invalid project permission " + perm + ". Valid values are [admin, codeviewer,
issueadmin, scan, user]");
            }
        });
}

@Test
public void fail_to_add_project_permission_but_SCAN_and_ADMIN_on_global_group() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    ProjectPermissions.ALL

```



```

        .stream()
        .filter(perm -> !GlobalPermissions.SCAN_EXECUTION.equals(perm) &&
!OrganizationPermission.ADMINISTER.getKey().equals(perm))
        .forEach(permission -> {
            try {
                apply(new GroupPermissionChange(PermissionChange.Operation.ADD, permission, null, groupId));
                fail("a BadRequestException should have been thrown for permission " + permission);
            } catch (BadRequestException e) {
                assertThat(e).hasMessage("Invalid global permission '" + permission + "'. Valid values are [admin,
profileadmin, gateadmin, scan, provisioning]");
            }
        });
    }

@Test
public void remove_permission_from_group() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertPermissionOnGroup(group, ADMINISTER_QUALITY_GATES);
    db.users().insertPermissionOnGroup(group, PROVISION_PROJECTS);

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE,
ADMINISTER_QUALITY_GATES.getKey(), null, groupId));

    assertThat(db.users().selectGroupPermissions(group, null)).containsOnly(PROVISION_PROJECTS.getKey());
}

@Test
public void remove_project_permission_from_group() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertPermissionOnGroup(group, ADMINISTER_QUALITY_GATES);
    db.users().insertProjectPermissionOnGroup(group, UserRole.ISSUE_ADMIN, privateProject);
    db.users().insertProjectPermissionOnGroup(group, UserRole.CODEVIEWER, privateProject);

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.ISSUE_ADMIN, new
ProjectId(privateProject), groupId));

    assertThat(db.users().selectGroupPermissions(group,
null)).containsOnly(ADMINISTER_QUALITY_GATES.getKey());
    assertThat(db.users().selectGroupPermissions(group, privateProject)).containsOnly(UserRole.CODEVIEWER);
}

@Test
public void do_not_fail_if_removing_a_permission_that_does_not_exist() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, UserRole.ISSUE_ADMIN, new
ProjectId(privateProject), groupId));

```

```

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
    assertThat(db.users().selectGroupPermissions(group, privateProject)).isEmpty();
}

@Test
public void fail_to_remove_admin_permission_if_no_more_admins() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertPermissionOnGroup(group, ADMINISTER);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Last group with permission 'admin'. Permission cannot be removed.");

    underTest.apply(db.getSession(), new GroupPermissionChange(PermissionChange.Operation.REMOVE,
ADMINISTER.getKey(), null, groupId));
}

@Test
public void remove_admin_group_if_still_other_admins() {
    GroupIdOrAnyone groupId = GroupIdOrAnyone.from(group);
    db.users().insertPermissionOnGroup(group, ADMINISTER);
    UserDto admin = db.users().insertUser();
    db.users().insertPermissionOnUser(org, admin, ADMINISTER);

    apply(new GroupPermissionChange(PermissionChange.Operation.REMOVE, ADMINISTER.getKey(), null,
groupId));

    assertThat(db.users().selectGroupPermissions(group, null)).isEmpty();
}

private void apply(GroupPermissionChange change) {
    underTest.apply(db.getSession(), change);
    db.commit();
}

private void unsafeInsertProjectPermissionOnAnyone(String perm) {
    GroupPermissionDto dto = new GroupPermissionDto()
        .setOrganizationUuid(privateProject.getOrganizationUuid())
        .setGroupId(null)
        .setRole(perm)
        .setResourceId(privateProject.getId());
    db.getDbClient().groupPermissionDao().insert(db.getSession(), dto);
    db.commit();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com

```

*
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
import { connect } from 'react-redux';
import App from './App';
import forSingleOrganization from '../organizations/forSingleOrganization';
import { getAppState } from '../store/rootReducer';
import { getRootQualifiers } from '../store/appState/duck';
```

```
const mapStateToProps = state => ({
  // treat applicatons as portfolios
  topQualifiers: getRootQualifiers(getAppState(state)).filter(q => q !== 'APP')
});
```

```
export default forSingleOrganization(connect(mapStateToProps)(App));
<dataset>
```

```
<user_roles id="1"
  user_id="100"
  resource_id="999"
  role="user"
  organization_uuid="org1"/>
```

```
<groups_users user_id="100"
  group_id="200"/>
```

```
<group_roles id="1"
  group_id="[null]"
  resource_id="300"
  role="user"
  organization_uuid="org1"/>
```

```
<projects organization_uuid="org1"
  id="300"
  uuid="ABCD"
  uuid_path="NOT_USED"
  root_uuid="ABCD"
  project_uuid="ABCD"
```

```
    module_uuid="[null]"
    kee="pj-w-snapshot"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="301"
    uuid="BCDE"
    uuid_path="NOT_USED"
    root_uuid="BCDE"
    project_uuid="BCDE"
    module_uuid="[null]"
    kee="pj-w-snapshot1"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="302"
    uuid="CDEF"
    uuid_path="NOT_USED"
    root_uuid="CDEF"
    project_uuid="CDEF"
    module_uuid="[null]"
    kee="pj-w-snapshot2"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>

<projects organization_uuid="org1"
    id="303"
    uuid="DEFG"
    uuid_path="NOT_USED"
    root_uuid="DEFG"
    project_uuid="DEFG"
    module_uuid="[null]"
    kee="pj-w-snapshot3"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>

</dataset>
```

Apache License
Version 2.0, January 2004

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally

submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or

implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Some code in `core/src/java/org/apache/lucene/util/UnicodeUtil.java` was derived from unicode conversion examples available at <http://www.unicode.org/Public/PROGRAMS/CVTUTF>. Here is the copyright from those sources:

```
/*
 * Copyright 2001-2004 Unicode, Inc.
 *
 * Disclaimer
 *
 * This source code is provided as is by Unicode, Inc. No claims are
 * made as to fitness for any particular purpose. No warranties of any
 * kind are expressed or implied. The recipient agrees to determine
 * applicability of information provided. If this file has been
 * purchased on magnetic or optical media from Unicode, Inc., the
 * sole remedy for any claim will be exchange of defective media
 * within 90 days of receipt.
 *
 * Limitations on Rights to Redistribute This Code
 *
 * Unicode, Inc. hereby grants the right to freely use the information
 * supplied in this file in the creation of products supporting the
 * Unicode Standard, and to make copies of this file in any form
 * for internal or external distribution as long as this notice
 * remains attached.
 */
```

Some code in `core/src/java/org/apache/lucene/util/ArrayUtil.java` was derived from Python 2.4.2 sources available at <http://www.python.org>. Full license is here:

<http://www.python.org/download/releases/2.4.2/license/>

Some code in `core/src/java/org/apache/lucene/util/UnicodeUtil.java` was derived from Python 3.1.2 sources available at <http://www.python.org>. Full license is here:

<http://www.python.org/download/releases/3.1.2/license/>

Some code in `core/src/java/org/apache/lucene/util/automaton` was derived from Brics automaton sources available at www.brics.dk/automaton/. Here is the copyright from those sources:

```
/*
 * Copyright (c) 2001-2009 Anders Moeller
 * All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 * notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 * notice, this list of conditions and the following disclaimer in the
 * documentation and/or other materials provided with the distribution.
 * 3. The name of the author may not be used to endorse or promote products
 * derived from this software without specific prior written permission.
 *
 * THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS" AND ANY EXPRESS OR
 * IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.
 * IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
 * INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
 * DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
 * THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
 * THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
 */
```

The levenshtein automata tables in `core/src/java/org/apache/lucene/util/automaton` were automatically generated with the `moman/finenight` FSA package. Here is the copyright for those sources:

```
# Copyright (c) 2010, Jean-Philippe Barrette-LaPierre, <jpb@rette.com>
#
# Permission is hereby granted, free of charge, to any person
# obtaining a copy of this software and associated documentation
# files (the "Software"), to deal in the Software without
# restriction, including without limitation the rights to use,
# copy, modify, merge, publish, distribute, sublicense, and/or sell
# copies of the Software, and to permit persons to whom the
# Software is furnished to do so, subject to the following
# conditions:
#
```

The above copyright notice and this permission notice shall be
included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES
OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT
HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR
OTHER DEALINGS IN THE SOFTWARE.

Some code in core/src/java/org/apache/lucene/util/UnicodeUtil.java was
derived from ICU (<http://www.icu-project.org>)

The full license is available here:

<http://source.icu-project.org/repos/icu/icu/trunk/license.html>

/*

* Copyright (C) 1999-2010, International Business Machines
* Corporation and others. All Rights Reserved.

*

* Permission is hereby granted, free of charge, to any person obtaining a copy
* of this software and associated documentation files (the "Software"), to deal
* in the Software without restriction, including without limitation the rights
* to use, copy, modify, merge, publish, distribute, and/or sell copies of the
* Software, and to permit persons to whom the Software is furnished to do so,
* provided that the above copyright notice(s) and this permission notice appear
* in all copies of the Software and that both the above copyright notice(s) and
* this permission notice appear in supporting documentation.

*

* THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
* IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
* FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS.
* IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE
* LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR
* ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER
* IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT
* OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

*

* Except as contained in this notice, the name of a copyright holder shall not
* be used in advertising or otherwise to promote the sale, use or other
* dealings in this Software without prior written authorization of the
* copyright holder.

*/

The following license applies to the Snowball stemmers:

Copyright (c) 2001, Dr Martin Porter

Copyright (c) 2002, Richard Boulton
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following license applies to the KStemmer:

Copyright 2003,
Center for Intelligent Information Retrieval,
University of Massachusetts, Amherst.
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The names "Center for Intelligent Information Retrieval" and "University of Massachusetts" must not be used to endorse or promote products derived from this software without prior written permission. To obtain permission, contact info@ciir.cs.umass.edu.

THIS SOFTWARE IS PROVIDED BY UNIVERSITY OF MASSACHUSETTS AND OTHER CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following license applies to the Morfologik project:

Copyright (c) 2006 Dawid Weiss

Copyright (c) 2007-2011 Dawid Weiss, Marcin Mikowski

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* Neither the name of Morfologik nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The dictionary comes from Morfologik project. Morfologik uses data from Polish ispell/myspell dictionary hosted at <http://www.sjp.pl/slownik/en/> and is licenced on the terms of (inter alia) LGPL and Creative Commons

ShareAlike. The part-of-speech tags were added in Morfologik project and are not found in the data from sjp.pl. The tagset is similar to IPI PAN tagset.

The following license applies to the Morfeusz project, used by org.apache.lucene.analysis.morfologik.

BSD-licensed dictionary of Polish (SGJP)
<http://sgjp.pl/morfeusz/>

Copyright 2011 Zygmunt Saloni, Włodzimierz Gruszczyski,
Marcin Wołowski, Robert Woosz

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY COPYRIGHT HOLDERS AS IS AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

```

* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission;

import java.util.Optional;
import org.sonar.api.web.UserRole;
import org.sonar.db.permission.OrganizationPermission;
import org.sonar.server.user.UserSession;

import static org.sonar.server.user.AbstractUserSession.insufficientPrivilegesException;

public class PermissionPrivilegeChecker {
    private PermissionPrivilegeChecker() {
        // static methods only
    }

    public static void checkGlobalAdmin(UserSession userSession, String organizationUuid) {
        userSession
            .checkLoggedIn()
            .checkPermission(OrganizationPermission.ADMINISTER, organizationUuid);
    }

    /**
     * Checks that user is administrator of the specified project, or of the specified organization if project is not
     * defined.
     * @throws org.sonar.server.exceptions.ForbiddenException if user is not administrator
     */
    public static void checkProjectAdmin(UserSession userSession, String organizationUuid, Optional<ProjectId>
projectId) {
        userSession.checkLoggedIn();

        if (userSession.hasPermission(OrganizationPermission.ADMINISTER, organizationUuid)) {
            return;
        }

        if (projectId.isPresent()) {
            userSession.checkComponentUuidPermission(UserRole.ADMIN, projectId.get().getUuid());
        } else {
            throw insufficientPrivilegesException();
        }
    }
}

```

```

    }
  }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Test;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class RemoveUserFromTemplateActionTest extends
BasePermissionWsTest<RemoveUserFromTemplateAction> {

```



```

private static final String DEFAULT_PERMISSION = CODEVIEWER;

private UserDto user;
private PermissionTemplateDto template;

@Override
protected RemoveUserFromTemplateAction buildWsAction() {
    return new RemoveUserFromTemplateAction(db.getDbClient(), newPermissionWsSupport(), userSession);
}

@Before
public void setUp() {
    user = db.users().insertUser("user-login");
    db.organizations().addMember(db.getDefaultOrganization(), user);
    template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
    addUserToTemplate(user, template, DEFAULT_PERMISSION);
}

@Test
public void remove_user_from_template() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);

    assertThat(getLoginsInTemplateAndPermission(template, DEFAULT_PERMISSION)).isEmpty();
}

@Test
public void remove_user_from_template_by_name_case_insensitive() {
    loginAsAdmin(db.getDefaultOrganization());
    newRequest()
        .setParam(PARAM_USER_LOGIN, user.getLogin())
        .setParam(PARAM_PERMISSION, DEFAULT_PERMISSION)
        .setParam(PARAM_TEMPLATE_NAME, template.getName().toUpperCase())
        .execute();

    assertThat(getLoginsInTemplateAndPermission(template, DEFAULT_PERMISSION)).isEmpty();
}

@Test
public void remove_user_from_template_twice_without_failing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);
    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);

    assertThat(getLoginsInTemplateAndPermission(template, DEFAULT_PERMISSION)).isEmpty();
}

```

```

@Test
public void keep_user_permission_not_removed() throws Exception {
    addUserToTemplate(user, template, ISSUE_ADMIN);

    loginAsAdmin(db.getDefaultOrganization());
    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);

    assertThat(getLoginsInTemplateAndPermission(template, DEFAULT_PERMISSION)).isEmpty();
    assertThat(getLoginsInTemplateAndPermission(template, ISSUE_ADMIN)).containsExactly(user.getLogin());
}

```

```

@Test
public void keep_other_users_when_one_user_removed() throws Exception {
    UserDto newUser = db.users().insertUser("new-login");
    db.organizations().addMember(db.getDefaultOrganization(), newUser);
    addUserToTemplate(newUser, template, DEFAULT_PERMISSION);

    loginAsAdmin(db.getDefaultOrganization());
    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);

    assertThat(getLoginsInTemplateAndPermission(template, DEFAULT_PERMISSION)).containsExactly("new-
login");
}

```

```

@Test
public void fail_if_not_a_project_permission() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(user.getLogin(), template.getUuid(), GlobalPermissions.PROVISIONING);
}

```

```

@Test
public void fail_if_insufficient_privileges() throws Exception {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);
}

```

```

@Test
public void fail_if_not_logged_in() throws Exception {
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);
}

```

```

    newRequest(user.getLogin(), template.getUuid(), DEFAULT_PERMISSION);
}

@Test
public void fail_if_user_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(null, template.getUuid(), DEFAULT_PERMISSION);
}

@Test
public void fail_if_permission_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(user.getLogin(), template.getUuid(), null);
}

@Test
public void fail_if_template_missing() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(user.getLogin(), null, DEFAULT_PERMISSION);
}

@Test
public void fail_if_user_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("User with login 'unknown-login' is not found");

    newRequest("unknown-login", template.getUuid(), DEFAULT_PERMISSION);
}

@Test
public void fail_if_template_key_does_not_exist() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-key' is not found");

    newRequest(user.getLogin(), "unknown-key", DEFAULT_PERMISSION);
}

```

```

}

private void newRequest(@Nullable String userLogin, @Nullable String templateKey, @Nullable String
permission) {
    TestRequest request = newRequest();
    if (userLogin != null) {
        request.setParam(PARAM_USER_LOGIN, userLogin);
    }
    if (templateKey != null) {
        request.setParam(org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID,
templateKey);
    }
    if (permission != null) {
        request.setParam(PARAM_PERMISSION, permission);
    }

    request.execute();
}

private List<String> getLoginsInTemplateAndPermission(PermissionTemplateDto template, String permission) {
    PermissionQuery permissionQuery =
PermissionQuery.builder().setOrganizationUuid(template.getOrganizationUuid()).setPermission(permission).build()
;
    return db.getDbClient().permissionTemplateDao()
        .selectUserLoginsByQueryAndTemplate(db.getSession(), permissionQuery, template.getId());
}

private void addUserToTemplate(UserDto user, PermissionTemplateDto template, String permission) {
    db.getDbClient().permissionTemplateDao().insertUserPermission(db.getSession(), template.getId(), user.getId(),
permission);
    db.commit();
}

}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

```

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission.template;

import com.google.common.base.Strings;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;

public class PermissionTemplateCharacteristicDtoTest {
    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    PermissionTemplateCharacteristicDto underTest = new PermissionTemplateCharacteristicDto();

    @Test
    public void check_permission_field_length() {
        expectedException.expect(IllegalArgumentException.class);
        expectedException
            .expectMessage("Permission key length (65) is longer than the maximum authorized (64).
'aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa' was provided.");

        underTest.setPermission(Strings.repeat("a", 65));
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.index;

```

```

/**
 * An {@link NeedAuthorizationIndexer} defines how
 * a {@link org.sonar.server.es.ProjectIndexer} populates
 * the type named {@link AuthorizationTypeSupport#TYPE_AUTHORIZATION}, which
 * is used to verify that a user can access to projects.
 */
public interface NeedAuthorizationIndexer {

    /**
     * Returns the metadata required by {@link PermissionIndexer} to
     * populate "authorization" types.
     */
    AuthorizationScope getAuthorizationScope();

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import java.util.Collection;
import java.util.List;
import java.util.Set;
import org.apache.ibatis.annotations.Param;

public interface UserPermissionMapper {

    List<UserPermissionDto> selectUserPermissionsByQueryAndUserIds(@Param("query") PermissionQuery query,
        @Param("userIds") Collection<Integer> userIds);

    List<Integer> selectUserIdsByQuery(@Param("query") PermissionQuery query);

```

```

/**
 * Count the number of distinct users returned by { @link #selectUserIdsByQuery(PermissionQuery)}
 * { @link PermissionQuery#getPageOffset()} and { @link PermissionQuery#getPageSize()} are ignored.
 */
int countUsersByQuery(@Param("query") PermissionQuery query);

/**
 * Count the number of users per permission for a given list of projects.
 * @param projectIds a non-null and non-empty list of project ids
 */
List<CountPerProjectPermission> countUsersByProjectPermission(@Param("projectIds") List<Long> projectIds);

/**
 * select id of users with at least one permission on the specified project but which do not have the specified
 * permission.
 */
Set<Integer> selectUserIdsWithPermissionOnProjectBut(@Param("projectId") long projectId,
@Param("permission") String permission);

void insert(UserPermissionDto dto);

void deleteGlobalPermission(@Param("userId") int userId, @Param("permission") String permission,
@Param("organizationUuid") String organizationUuid);

void deleteProjectPermission(@Param("userId") int userId, @Param("permission") String permission,
@Param("projectId") long projectId);

void deleteProjectPermissions(@Param("projectId") long projectId);

int deleteProjectPermissionOfAnyUser(@Param("projectId") long projectId, @Param("permission") String
permission);

List<String> selectGlobalPermissionsOfUser(@Param("userId") int userId, @Param("organizationUuid") String
organizationUuid);

List<String> selectProjectPermissionsOfUser(@Param("userId") int userId, @Param("projectId") long projectId);

void deleteByOrganization(@Param("organizationUuid") String organizationUuid);

void deleteOrganizationMemberPermissions(@Param("organizationUuid") String organizationUuid,
@Param("userId") int login);

void deleteByUserId(@Param("userId") int userId);
}
/**
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA

```

```
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
@ParametersAreNonnullByDefault
package org.sonar.db.permission.template;
```

```
import javax.annotation.ParametersAreNonnullByDefault;
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;
```

```
import java.util.Date;
import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.utils.System2;
```



```

import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Permissions.PermissionTemplate;
import org.sonarqube.ws.Permissions.UpdateTemplateWsResponse;

import static com.google.common.base.MoreObjects.firstNonNull;
import static java.lang.String.format;
import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static
org.sonar.server.permission.ws.PermissionRequestValidator.MSG_TEMPLATE_WITH_SAME_NAME;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPattern;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateTemplateNameFormat;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createIdParameter;
import static
org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateDescriptionParameter;
import static
org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateProjectKeyPatternParameter;
import static
org.sonar.server.permission.ws.template.PermissionTemplateDtoToPermissionTemplateResponse.toPermissionTem
plateResponse;
import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_DESCRIPTION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;

public class UpdateTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final UserSession userSession;
    private final System2 system;
    private final PermissionWsSupport wsSupport;

    public UpdateTemplateAction(DbClient dbClient, UserSession userSession, System2 system,
PermissionWsSupport wsSupport) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.system = system;
        this.wsSupport = wsSupport;
    }

    private static UpdateTemplateRequest toUpdateTemplateWsRequest(Request request) {
        return new UpdateTemplateRequest()

```

```

        .setId(request.mandatoryParam(PARAM_ID))
        .setName(request.param(PARAM_NAME))
        .setDescription(request.param(PARAM_DESCRIPTION))
        .setProjectKeyPattern(request.param(PARAM_PROJECT_KEY_PATTERN));
    }

private static UpdateTemplateWsResponse buildResponse(PermissionTemplateDto permissionTemplate) {
    PermissionTemplate permissionTemplateBuilder = toPermissionTemplateResponse(permissionTemplate);
    return UpdateTemplateWsResponse.newBuilder().setPermissionTemplate(permissionTemplateBuilder).build();
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("update_template")
        .setDescription("Update a permission template.<br />" +
            "Requires the following permission: 'Administer System'.")
        .setResponseExample(getClass().getResource("update_template-example.json"))
        .setSince("5.2")
        .setPost(true)
        .setHandler(this);

    createIdParameter(action);

    action.createParam(PARAM_NAME)
        .setDescription("Name")
        .setExampleValue("Financial Service Permissions");

    createTemplateProjectKeyPatternParameter(action);
    createTemplateDescriptionParameter(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    UpdateTemplateWsResponse updateTemplateWsResponse = doHandle(toUpdateTemplateWsRequest(request));
    writeProtobuf(updateTemplateWsResponse, request, response);
}

private UpdateTemplateWsResponse doHandle(UpdateTemplateRequest request) {
    String uuid = request.getId();
    String nameParam = request.getName();
    String descriptionParam = request.getDescription();
    String projectPatternParam = request.getProjectKeyPattern();

    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto templateToUpdate = getAndBuildTemplateToUpdate(dbSession, uuid, nameParam,
            descriptionParam, projectPatternParam);
        checkGlobalAdmin(userSession, templateToUpdate.getOrganizationUuid());
    }
}

```

```

        validateTemplate(dbSession, templateToUpdate);
        PermissionTemplateDto updatedTemplate = updateTemplate(dbSession, templateToUpdate);
        dbSession.commit();

        return buildResponse(updatedTemplate);
    }
}

private void validateTemplate(DbSession dbSession, PermissionTemplateDto templateToUpdate) {
    validateTemplateNameForUpdate(dbSession, templateToUpdate.getOrganizationUuid(),
templateToUpdate.getName(), templateToUpdate.getId());
    validateProjectPattern(templateToUpdate.getKeyPattern());
}

private PermissionTemplateDto getAndBuildTemplateToUpdate(DbSession dbSession, String uuid, @Nullable
String newName, @Nullable String newDescription,
@Nullable String newProjectKeyPattern) {
    PermissionTemplateDto templateToUpdate = wsSupport.findTemplate(dbSession,
WsTemplateRef.newTemplateRef(uuid, null, null));
    templateToUpdate.setName(firstNonNull(newName, templateToUpdate.getName()));
    templateToUpdate.setDescription(firstNonNull(newDescription, templateToUpdate.getDescription()));
    templateToUpdate.setKeyPattern(firstNonNull(newProjectKeyPattern, templateToUpdate.getKeyPattern()));
    templateToUpdate.setUpdatedAt(new Date(system.now()));

    return templateToUpdate;
}

private PermissionTemplateDto updateTemplate(DbSession dbSession, PermissionTemplateDto
templateToUpdate) {
    return dbClient.permissionTemplateDao().update(dbSession, templateToUpdate);
}

private void validateTemplateNameForUpdate(DbSession dbSession, String organizationUuid, String name, long
id) {
    validateTemplateNameFormat(name);

    PermissionTemplateDto permissionTemplateWithSameName =
dbClient.permissionTemplateDao().selectByName(dbSession, organizationUuid, name);
    checkRequest(permissionTemplateWithSameName == null || permissionTemplateWithSameName.getId() == id,
format(MSG_TEMPLATE_WITH_SAME_NAME, name));
}

private static class UpdateTemplateRequest {
    private String id;
    private String description;
    private String name;
    private String projectKeyPattern;
}

```

```

public String getId() {
    return id;
}

public UpdateTemplateRequest setId(String id) {
    this.id = requireNonNull(id);
    return this;
}

@CheckForNull
public String getDescription() {
    return description;
}

public UpdateTemplateRequest setDescription(@Nullable String description) {
    this.description = description;
    return this;
}

@CheckForNull
public String getName() {
    return name;
}

public UpdateTemplateRequest setName(@Nullable String name) {
    this.name = name;
    return this;
}

@CheckForNull
public String getProjectKeyPattern() {
    return projectKeyPattern;
}

public UpdateTemplateRequest setProjectKeyPattern(@Nullable String projectKeyPattern) {
    this.projectKeyPattern = projectKeyPattern;
    return this;
}
}
}
}

```

Elasticsearch

Copyright 2009-2017 Elasticsearch

This product includes software developed by The Apache Software Foundation
(<http://www.apache.org/>).

=====

HdrHistogram LICENSE

=====

The code in this repository code was Written by Gil Tene, Michael Barker, and Matt Warren, and released to the public domain, as explained at <http://creativecommons.org/publicdomain/zero/1.0/>

For users of this code who wish to consume it under the "BSD" license rather than under the public domain or CC0 contribution text mentioned above, the code found under this directory is *also* provided under the following license (commonly referred to as the BSD 2-Clause License). This license does not detract from the above stated release of the code into the public domain, and simply represents an additional license granted by the Author.

** Beginning of "BSD 2-Clause License" text. **

Copyright (c) 2012, 2013, 2014 Gil Tene
Copyright (c) 2014 Michael Barker
Copyright (c) 2014 Matt Warren
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

=====

antlr4-runtime LICENSE

=====

[The "BSD license"]

Copyright (c) 2015 Terence Parr, Sam Harwell
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

=====
asm LICENSE
=====

Copyright (c) 2012 France Tlcom
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE

ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

=====
compiler LICENSE
=====

Copyright 2010 RightTime, Inc.

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

=====
groovy NOTICE
=====

Apache Groovy
Copyright 2003-2016 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

=====
groovy LICENSE
=====

/*

* Licensed under the Apache License, Version 2.0 (the "License");
* you may not use this file except in compliance with the License.
* You may obtain a copy of the License at

*

* <http://www.apache.org/licenses/LICENSE-2.0>

- * Unless required by applicable law or agreed to in writing, software
- * distributed under the License is distributed on an "AS IS" BASIS,
- * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
- * See the License for the specific language governing permissions and
- * limitations under the License.
- *
- */

hppc NOTICE

ACKNOWLEDGEMENT

HPPC borrowed code, ideas or both from:

- * Apache Lucene, <http://lucene.apache.org/>
(Apache license)
- * Fastutil, <http://fastutil.di.unimi.it/>
(Apache license)
- * Koloboke, <https://github.com/OpenHFT/Koloboke>
(Apache license)

hppc LICENSE

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition,

"control" means (i) the power, direct or indirect, to cause the

direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of

this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and

wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor

has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 2010-2013, Carrot Search s.c., Boznicza 11/56, Poznan, Poland

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
jcodings NOTICE
=====
JCodings is released under the MIT License.
=====

jcodings LICENSE

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

jna LICENSE

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed

as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this

License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

=====
joda-time NOTICE
=====

=====
= NOTICE file corresponding to section 4d of the Apache License Version 2.0 =
=====

This product includes software developed by
Joda.org (<http://www.joda.org/>).

=====
joda-time LICENSE
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed

as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this

License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.

You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
joni NOTICE
=====

Joni is released under the MIT License.

=====
joni LICENSE
=====

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies

of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

=====
jopt-simple LICENSE
=====

/*

The MIT License

Copyright (c) 2004-2015 Paul R. Holser, Jr.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

*/

=====
jts LICENSE
=====

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates
the terms and conditions of version 3 of the GNU General Public
License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser
General Public License, and the "GNU GPL" refers to version 3 of the GNU
General Public License.

"The Library" refers to a covered work governed by this License,
other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided
by the Library, but which is not otherwise based on the Library.
Defining a subclass of a class defined by the Library is deemed a mode
of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an
Application with the Library. The particular version of the Library
with which the Combined Work was made is also called the "Linked
Version".

The "Minimal Corresponding Source" for a Combined Work means the
Corresponding Source for the Combined Work, excluding any source code
for portions of the Combined Work that, considered in isolation, are
based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the
object code and/or source code for the Application, including any data
and utility programs needed for reproducing the Combined Work from the
Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License
without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a
facility refers to a function or data to be supplied by an Application

that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
- b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.

b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions

of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

=====
log4j NOTICE

=====
Apache log4j
Copyright 2007 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

=====
log4j LICENSE

=====
Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity

on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one

of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a

result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 1999-2005 The Apache Software Foundation

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
log4j-api NOTICE
=====

Apache log4j
Copyright 2007 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

log4j-api LICENSE

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate

as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify

the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include

the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 1999-2005 The Apache Software Foundation

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
log4j-core NOTICE
=====

Apache log4j
Copyright 2007 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

=====
log4j-core LICENSE
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity

on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one

of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a

result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright 1999-2005 The Apache Software Foundation

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
lucene NOTICE
=====

Apache Lucene
Copyright 2014 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

Includes software from other Apache Software Foundation projects,
including, but not limited to:

- Apache Ant
- Apache Jakarta Regexp
- Apache Commons
- Apache Xerces

ICU4J, (under analysis/icu) is licensed under an MIT styles license
and Copyright (c) 1995-2008 International Business Machines Corporation and others

Some data files (under analysis/icu/src/data) are derived from Unicode data such
as the Unicode Character Database. See <http://unicode.org/copyright.html> for more
details.

Brics Automaton (under core/src/java/org/apache/lucene/util/automaton) is
BSD-licensed, created by Anders Mller. See <http://www.brics.dk/automaton/>

The levenshtein automata tables (under core/src/java/org/apache/lucene/util/automaton) were
automatically generated with the moman/finenight FSA library, created by
Jean-Philippe Barrette-LaPierre. This library is available under an MIT license,
see <http://sites.google.com/site/rrettesite/moman> and
<http://bitbucket.org/jpbarrette/moman/overview/>

The class org.apache.lucene.util.WeakIdentityMap was derived from
the Apache CXF project and is Apache License 2.0.

The Google Code Prettify is Apache License 2.0.
See <http://code.google.com/p/google-code-prettify/>

JUnit (junit-4.10) is licensed under the Common Public License v. 1.0
See <http://junit.sourceforge.net/cpl-v10.html>

This product includes code (JaspellTernarySearchTrie) from Java Spelling Checkin
g Package (jaspell): <http://jaspell.sourceforge.net/>
License: The BSD License (<http://www.opensource.org/licenses/bsd-license.php>)

The snowball stemmers in
analysis/common/src/java/net/sf/snowball
were developed by Martin Porter and Richard Boulton.
The snowball stopword lists in
analysis/common/src/resources/org/apache/lucene/analysis/snowball
were developed by Martin Porter and Richard Boulton.

The full snowball package is available from
<http://snowball.tartarus.org/>

The KStem stemmer in
`analysis/common/src/org/apache/lucene/analysis/en`
was developed by Bob Krovetz and Sergio Guzman-Lara (CIIR-UMass Amherst)
under the BSD-license.

The Arabic,Persian,Romanian,Bulgarian, and Hindi analyzers (common) come with a default
stopword list that is BSD-licensed created by Jacques Savoy. These files reside in:
`analysis/common/src/resources/org/apache/lucene/analysis/ar/stopwords.txt`,
`analysis/common/src/resources/org/apache/lucene/analysis/fa/stopwords.txt`,
`analysis/common/src/resources/org/apache/lucene/analysis/ro/stopwords.txt`,
`analysis/common/src/resources/org/apache/lucene/analysis/bg/stopwords.txt`,
`analysis/common/src/resources/org/apache/lucene/analysis/hi/stopwords.txt`
See <http://members.unine.ch/jacques.savoy/clef/index.html>.

The German,Spanish,Finnish,French,Hungarian,Italian,Portuguese,Russian and Swedish light stemmers
(common) are based on BSD-licensed reference implementations created by Jacques Savoy and
Ljiljana Dolamic. These files reside in:

`analysis/common/src/java/org/apache/lucene/analysis/de/GermanLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/de/GermanMinimalStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/es/SpanishLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/fi/FinnishLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchMinimalStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/it/ItalianLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java`
`analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java`

The Stempel analyzer (stempel) includes BSD-licensed software developed
by the Egothor project <http://egothor.sf.net/>, created by Leo Galambos, Martin Kvapil,
and Edmond Nolan.

The Polish analyzer (stempel) comes with a default
stopword list that is BSD-licensed created by the Carrot2 project. The file resides
in `stempel/src/resources/org/apache/lucene/analysis/pl/stopwords.txt`.
See <http://project.carrot2.org/license.html>.

The SmartChineseAnalyzer source code (smartcn) was
provided by Xiaoping Gao and copyright 2009 by www.imdict.net.

`WordBreakTestUnicode_*.java` (under `modules/analysis/common/src/test/`)
is derived from Unicode data such as the Unicode Character Database.
See <http://unicode.org/copyright.html> for more details.

The Morfologik analyzer (morfologik) includes BSD-licensed software developed by Dawid Weiss and Marcin Mikowski (<http://morfologik.blogspot.com/>).

Morfologik uses data from Polish ispell/myspell dictionary (<http://www.sjp.pl/slownik/en/>) licenced on the terms of (inter alia) LGPL and Creative Commons ShareAlike.

Morfologic includes data from BSD-licensed dictionary of Polish (SGJP) (<http://sgjp.pl/morfeusz/>)

Servlet-api.jar and javax.servlet-*.jar are under the CDDL license, the original source code for this can be found at <http://www.eclipse.org/jetty/downloads.php>

Kuromoji Japanese Morphological Analyzer - Apache Lucene Integration

This software includes a binary and/or source version of data from

mecab-ipadic-2.7.0-20070801

which can be obtained from

<http://atilika.com/releases/mecab-ipadic/mecab-ipadic-2.7.0-20070801.tar.gz>

or

<http://jaist.dl.sourceforge.net/project/mecab/mecab-ipadic/2.7.0-20070801/mecab-ipadic-2.7.0-20070801.tar.gz>

mecab-ipadic-2.7.0-20070801 Notice

Nara Institute of Science and Technology (NAIST), the copyright holders, disclaims all warranties with regard to this software, including all implied warranties of merchantability and fitness, in no event shall NAIST be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortuous action, arising out of or in connection with the use or performance of this software.

A large portion of the dictionary entries originate from ICOT Free Software. The following conditions for ICOT Free Software applies to the current dictionary as well.

Each User may also freely distribute the Program, whether in its original form or modified, to any third party or parties, PROVIDED

that the provisions of Section 3 ("NO WARRANTY") will ALWAYS appear on, or be attached to, the Program, which is distributed substantially in the same form as set out herein and that such intended distribution, if actually made, will neither violate or otherwise contravene any of the laws and regulations of the countries having jurisdiction over the User or the intended distribution itself.

NO WARRANTY

The program was produced on an experimental basis in the course of the research and development conducted during the project and is provided to users as so produced on an experimental basis. Accordingly, the program is provided without any warranty whatsoever, whether express, implied, statutory or otherwise. The term "warranty" used herein includes, but is not limited to, any warranty of the quality, performance, merchantability and fitness for a particular purpose of the program and the nonexistence of any infringement or violation of any right of any third party.

Each user of the program will agree and understand, and be deemed to have agreed and understood, that there is no warranty whatsoever for the program and, accordingly, the entire risk arising from or otherwise connected with the program is assumed by the user.

Therefore, neither ICOT, the copyright holder, or any other organization that participated in or was otherwise related to the development of the program and their respective officials, directors, officers and other employees shall be held liable for any and all damages, including, without limitation, general, special, incidental and consequential damages, arising out of or otherwise in connection with the use or inability to use the program or any product, material or result produced or otherwise obtained by using the program, regardless of whether they have been advised of, or otherwise had knowledge of, the possibility of such damages at any time during the project or thereafter. Each user will be deemed to have agreed to the foregoing by his or her commencement of use of the program. The term "use" as used herein includes, but is not limited to, the use, modification, copying and distribution of the program and the production of secondary products from the program.

In the case where the program, whether in its original form or modified, was distributed or delivered to or received by a user from any person, organization or entity other than ICOT, unless it makes or grants independently of ICOT any specific warranty to the user in writing, such person, organization or entity, will also be exempted from and not be held liable to the user for any such damages as noted above as far as the program is concerned.

lucene LICENSE

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes

of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You

meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor,

except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

Some code in `core/src/java/org/apache/lucene/util/UnicodeUtil.java` was
derived from unicode conversion examples available at
<http://www.unicode.org/Public/PROGRAMS/CVTUTF>. Here is the copyright
from those sources:

```
/*  
* Copyright 2001-2004 Unicode, Inc.  
*  
* Disclaimer  
*  
* This source code is provided as is by Unicode, Inc. No claims are  
* made as to fitness for any particular purpose. No warranties of any  
* kind are expressed or implied. The recipient agrees to determine  
* applicability of information provided. If this file has been  
* purchased on magnetic or optical media from Unicode, Inc., the  
* sole remedy for any claim will be exchange of defective media  
* within 90 days of receipt.  
*  
* Limitations on Rights to Redistribute This Code  
*  
* Unicode, Inc. hereby grants the right to freely use the information  
* supplied in this file in the creation of products supporting the  
* Unicode Standard, and to make copies of this file in any form  
* for internal or external distribution as long as this notice  
* remains attached.  
*/
```

Some code in `core/src/java/org/apache/lucene/util/ArrayUtil.java` was
derived from Python 2.4.2 sources available at
<http://www.python.org>. Full license is here:

<http://www.python.org/download/releases/2.4.2/license/>

Some code in `core/src/java/org/apache/lucene/util/UnicodeUtil.java` was derived from Python 3.1.2 sources available at <http://www.python.org>. Full license is here:

<http://www.python.org/download/releases/3.1.2/license/>

Some code in `core/src/java/org/apache/lucene/util/automaton` was derived from Brics automaton sources available at www.brics.dk/automaton/. Here is the copyright from those sources:

```
/*
 * Copyright (c) 2001-2009 Anders Moeller
 * All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 * notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 * notice, this list of conditions and the following disclaimer in the
 * documentation and/or other materials provided with the distribution.
 * 3. The name of the author may not be used to endorse or promote products
 * derived from this software without specific prior written permission.
 *
 * THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS" AND ANY EXPRESS OR
 * IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.
 * IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
 * INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
 * DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
 * THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
 * THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
 */
```

The levenshtein automata tables in `core/src/java/org/apache/lucene/util/automaton` were automatically generated with the `moman/finenight` FSA package. Here is the copyright for those sources:

```
# Copyright (c) 2010, Jean-Philippe Barrette-LaPierre, <jpb@rrette.com>
#
# Permission is hereby granted, free of charge, to any person
# obtaining a copy of this software and associated documentation
```

```
# files (the "Software"), to deal in the Software without
# restriction, including without limitation the rights to use,
# copy, modify, merge, publish, distribute, sublicense, and/or sell
# copies of the Software, and to permit persons to whom the
# Software is furnished to do so, subject to the following
# conditions:
#
# The above copyright notice and this permission notice shall be
# included in all copies or substantial portions of the Software.
#
# THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
# EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES
# OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
# NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT
# HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
# WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
# FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR
# OTHER DEALINGS IN THE SOFTWARE.
```

Some code in `core/src/java/org/apache/lucene/util/UnicodeUtil.java` was derived from ICU (<http://www.icu-project.org>)

The full license is available here:

<http://source.icu-project.org/repos/icu/icu/trunk/license.html>

```
/*
```

```
* Copyright (C) 1999-2010, International Business Machines
```

```
* Corporation and others. All Rights Reserved.
```

```
*
```

```
* Permission is hereby granted, free of charge, to any person obtaining a copy
* of this software and associated documentation files (the "Software"), to deal
* in the Software without restriction, including without limitation the rights
* to use, copy, modify, merge, publish, distribute, and/or sell copies of the
* Software, and to permit persons to whom the Software is furnished to do so,
* provided that the above copyright notice(s) and this permission notice appear
* in all copies of the Software and that both the above copyright notice(s) and
* this permission notice appear in supporting documentation.
```

```
*
```

```
* THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
* IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
* FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS.
* IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE
* LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR
* ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER
* IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT
* OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.
```

```
*
```

```
* Except as contained in this notice, the name of a copyright holder shall not
```

```
* be used in advertising or otherwise to promote the sale, use or other
```

- * dealings in this Software without prior written authorization of the
- * copyright holder.
- */

The following license applies to the Snowball stemmers:

Copyright (c) 2001, Dr Martin Porter
Copyright (c) 2002, Richard Boulton
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following license applies to the KStemmer:

Copyright 2003,
Center for Intelligent Information Retrieval,
University of Massachusetts, Amherst.
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation

and/or other materials provided with the distribution.

3. The names "Center for Intelligent Information Retrieval" and "University of Massachusetts" must not be used to endorse or promote products derived from this software without prior written permission. To obtain permission, contact info@ciir.cs.umass.edu.

THIS SOFTWARE IS PROVIDED BY UNIVERSITY OF MASSACHUSETTS AND OTHER CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following license applies to the Morfologik project:

Copyright (c) 2006 Dawid Weiss
Copyright (c) 2007-2011 Dawid Weiss, Marcin Mikowski
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of Morfologik nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS

SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The dictionary comes from Morfologik project. Morfologik uses data from Polish ispell/myspell dictionary hosted at <http://www.sjp.pl/slownik/en/> and is licenced on the terms of (inter alia) LGPL and Creative Commons ShareAlike. The part-of-speech tags were added in Morfologik project and are not found in the data from sjp.pl. The tagset is similar to IPI PAN tagset.

The following license applies to the Morfeusz project, used by `org.apache.lucene.analysis.morfologik`.

BSD-licensed dictionary of Polish (SGJP)
<http://sgjp.pl/morfeusz/>

Copyright 2011 Zygmunt Saloni, Wodzimierz Gruszczyski,
Marcin Woliski, Robert Woosz

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY COPYRIGHT HOLDERS AS IS AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

=====
netty NOTICE
=====

The Netty Project
=====

Please visit the Netty web site for more information:

* <http://netty.io/>

Copyright 2011 The Netty Project

The Netty Project licenses this file to you under the Apache License, version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Also, please refer to each LICENSE.<component>.txt file, which is located in the 'license' directory of the distribution file, for the license terms of the components that this product depends on.

This product contains the extensions to Java Collections Framework which has been derived from the works by JSR-166 EG, Doug Lea, and Jason T. Greene:

* LICENSE:

* <license/LICENSE.jsr166y.txt> (Public Domain)

* HOMEPAGE:

* <http://gee.cs.oswego.edu/cgi-bin/viewcvs.cgi/jsr166/>

* <http://viewvc.jboss.org/cgi-bin/viewvc.cgi/jboss/cache/experimental/jsr166/>

This product contains a modified version of Robert Harder's Public Domain Base64 Encoder and Decoder, which can be obtained at:

* LICENSE:

* <license/LICENSE.base64.txt> (Public Domain)

* HOMEPAGE:

* <http://iharder.sourceforge.net/current/java/base64/>

This product contains a modified version of 'JZlib', a re-implementation of zlib in pure Java, which can be obtained at:

* LICENSE:

* license/LICENSE.jzlib.txt (BSD Style License)

* HOMEPAGE:

* <http://www.jcraft.com/jzlib/>

This product contains a modified version of 'Webbit', a Java event based WebSocket and HTTP server:

* LICENSE:

* license/LICENSE.webbit.txt (BSD License)

* HOMEPAGE:

* <https://github.com/joewalnes/webbit>

This product optionally depends on 'Protocol Buffers', Google's data interchange format, which can be obtained at:

* LICENSE:

* license/LICENSE.protobuf.txt (New BSD License)

* HOMEPAGE:

* <http://code.google.com/p/protobuf/>

This product optionally depends on 'Bouncy Castle Crypto APIs' to generate a temporary self-signed X.509 certificate when the JVM does not provide the equivalent functionality. It can be obtained at:

* LICENSE:

* license/LICENSE.bouncycastle.txt (MIT License)

* HOMEPAGE:

* <http://www.bouncycastle.org/>

This product optionally depends on 'SLF4J', a simple logging facade for Java, which can be obtained at:

* LICENSE:

* license/LICENSE.slf4j.txt (MIT License)

* HOMEPAGE:

* <http://www.slf4j.org/>

This product optionally depends on 'Apache Commons Logging', a logging framework, which can be obtained at:

* LICENSE:

* license/LICENSE.commons-logging.txt (Apache License 2.0)

* HOMEPAGE:

* <http://commons.apache.org/logging/>

This product optionally depends on 'Apache Log4J', a logging framework, which can be obtained at:

- * LICENSE:
 - * license/LICENSE.log4j.txt (Apache License 2.0)
- * HOMEPAGE:
 - * <http://logging.apache.org/log4j/>

This product optionally depends on 'JBoss Logging', a logging framework, which can be obtained at:

- * LICENSE:
 - * license/LICENSE.jboss-logging.txt (GNU LGPL 2.1)
- * HOMEPAGE:
 - * <http://anonsvn.jboss.org/repos/common/common-logging-spi/>

This product optionally depends on 'Apache Felix', an open source OSGi framework implementation, which can be obtained at:

- * LICENSE:
 - * license/LICENSE.felix.txt (Apache License 2.0)
- * HOMEPAGE:
 - * <http://felix.apache.org/>

=====
netty LICENSE
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition,

"control" means (i) the power, direct or indirect, to cause the

direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of

this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and

wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor

has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
seuresm LICENSE
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner

or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions

of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

snakeyaml NOTICE

The art of simplicity is a puzzle of complexity.

Overview

[YAML](<http://yaml.org>) is a data serialization format designed for human readability and interaction with scripting languages.

SnakeYAML is a YAML processor for the Java Virtual Machine.

SnakeYAML features

- * a **complete** [YAML 1.1 processor](<http://yaml.org/spec/1.1/current.html>). In particular, SnakeYAML can parse all examples from the specification.
- * Unicode support including UTF-8/UTF-16 input/output.
- * high-level API for serializing and deserializing native Java objects.
- * support for all types from the [YAML types repository](<http://yaml.org/type/index.html>).
- * relatively sensible error messages.

Info

- * [Changes](<https://bitbucket.org/asomov/snakeyaml/wiki/Changes>)
- * [Documentation](<https://bitbucket.org/asomov/snakeyaml/wiki/Documentation>)

Contribute

- * Mercurial DVCS is used to dance with the [source code](<https://bitbucket.org/asomov/snakeyaml/src>).
- * If you find a bug in SnakeYAML, please [file a bug report](<https://bitbucket.org/asomov/snakeyaml/issues?status=new&status=open>).
- * You may discuss SnakeYAML at [the mailing list](<http://groups.google.com/group/snakeyaml-core>).

snakeyaml LICENSE

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent

to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work,

excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any

risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

=====
spatial4j NOTICE
=====

Eclipse Foundation Software User Agreement

April 9, 2014

Usage Of Content

THE ECLIPSE FOUNDATION MAKES AVAILABLE SOFTWARE, DOCUMENTATION, INFORMATION AND/OR OTHER MATERIALS FOR OPEN SOURCE PROJECTS (COLLECTIVELY "CONTENT"). USE OF THE CONTENT IS GOVERNED BY THE TERMS AND CONDITIONS OF THIS AGREEMENT AND/OR THE TERMS AND CONDITIONS OF LICENSE AGREEMENTS OR NOTICES INDICATED OR REFERENCED BELOW. BY USING THE CONTENT, YOU AGREE THAT YOUR USE OF THE CONTENT IS GOVERNED BY THIS AGREEMENT AND/OR THE TERMS AND CONDITIONS OF ANY APPLICABLE LICENSE AGREEMENTS OR NOTICES INDICATED OR REFERENCED BELOW. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT AND THE TERMS AND CONDITIONS OF ANY APPLICABLE LICENSE AGREEMENTS OR NOTICES

INDICATED OR REFERENCED BELOW, THEN YOU MAY NOT USE THE CONTENT.

Applicable Licenses

Unless otherwise indicated, all Content made available by the Eclipse Foundation is provided to you under the terms and conditions of the Eclipse Public License Version 1.0 ("EPL"). A copy of the EPL is provided with this Content and is also available at <http://www.eclipse.org/legal/epl-v10.html>. For purposes of the EPL, "Program" will mean the Content.

Content includes, but is not limited to, source code, object code, documentation and other files maintained in the Eclipse Foundation source code repository ("Repository") in software modules ("Modules") and made available as downloadable archives ("Downloads").

* Content may be structured and packaged into modules to facilitate delivering, extending, and upgrading the Content.

Typical modules may include plug-ins ("Plug-ins"), plug-in fragments ("Fragments"), and features ("Features").

* Each Plug-in or Fragment may be packaged as a sub-directory or JAR (Java ARchive) in a directory named "plugins".

* A Feature is a bundle of one or more Plug-ins and/or Fragments and associated material. Each Feature may be packaged

as a sub-directory in a directory named "features". Within a Feature, files named "feature.xml" may contain a list of the names and version numbers of the Plug-ins and/or Fragments associated with that Feature.

* Features may also include other Features ("Included Features"). Within a Feature, files named "feature.xml" may contain a list of the names and version numbers of Included Features.

The terms and conditions governing Plug-ins and Fragments should be contained in files named "about.html" ("Abouts").

The terms and conditions governing Features and Included Features should be contained in files named "license.html"

("Feature Licenses"). Abouts and Feature Licenses may be located in any directory of a Download or Module including, but

not limited to the following locations:

- * The top-level (root) directory
- * Plug-in and Fragment directories
- * Inside Plug-ins and Fragments packaged as JARs
- * Sub-directories of the directory named "src" of certain Plug-ins
- * Feature directories

Note: if a Feature made available by the Eclipse Foundation is installed using the Provisioning Technology (as defined

below), you must agree to a license ("Feature Update License") during the installation process. If the Feature contains

Included Features, the Feature Update License should either provide you with the terms and conditions governing the

Included Features or inform you where you can locate them. Feature Update Licenses may be found in the "license" property of files named "feature.properties" found within a Feature. Such Abouts, Feature Licenses, and Feature Update Licenses contain the terms and conditions (or references to such terms and conditions) that govern your use of the associated Content in that directory.

THE ABOUTS, FEATURE LICENSES, AND FEATURE UPDATE LICENSES MAY REFER TO THE EPL OR OTHER LICENSE AGREEMENTS, NOTICES OR TERMS AND CONDITIONS. SOME OF THESE OTHER LICENSE AGREEMENTS MAY INCLUDE (BUT ARE NOT LIMITED TO):

- * Eclipse Distribution License Version 1.0 (available at <http://www.eclipse.org/licenses/edl-v10.html>)
- * Common Public License Version 1.0 (available at <http://www.eclipse.org/legal/cpl-v10.html>)
- * Apache Software License 1.1 (available at <http://www.apache.org/licenses/LICENSE>)
- * Apache Software License 2.0 (available at <http://www.apache.org/licenses/LICENSE-2.0>)
- * Mozilla Public License Version 1.1 (available at <http://www.mozilla.org/MPL/MPL-1.1.html>)

IT IS YOUR OBLIGATION TO READ AND ACCEPT ALL SUCH TERMS AND CONDITIONS PRIOR TO USE OF THE CONTENT. If no About, Feature License, or Feature Update License is provided, please contact the Eclipse Foundation to determine what terms and conditions govern that particular Content.

Use of Provisioning Technology

The Eclipse Foundation makes available provisioning software, examples of which include, but are not limited to, p2 and the Eclipse Update Manager ("Provisioning Technology") for the purpose of allowing users to install software, documentation, information and/or other materials (collectively "Installable Software"). This capability is provided with the intent of allowing such users to install, extend and update Eclipse-based products. Information about packaging Installable Software is available at http://eclipse.org/equinox/p2/repository_packaging.html ("Specification").

You may use Provisioning Technology to allow other parties to install Installable Software. You shall be responsible for enabling the applicable license agreements relating to the Installable Software to be presented to, and accepted by, the users of the Provisioning Technology in accordance with the Specification. By using Provisioning Technology in such a manner and making it available in accordance with the Specification, you further acknowledge your agreement to, and the acquisition of all necessary rights to permit the following:

1. A series of actions may occur ("Provisioning Process") in which a user may execute the Provisioning Technology on a machine ("Target Machine") with the intent of installing, extending or updating the functionality of an Eclipse-based product.
2. During the Provisioning Process, the Provisioning Technology may cause third party Installable Software or a portion

thereof to be accessed and copied to the Target Machine.

3. Pursuant to the Specification, you will provide to the user the terms and conditions that govern the use of the Installable Software ("Installable Software Agreement") and such Installable Software Agreement shall be accessed

from the Target Machine in accordance with the Specification. Such Installable Software Agreement must inform the

user of the terms and conditions that govern the Installable Software and must solicit acceptance by the end user in the manner prescribed in such Installable Software Agreement. Upon such indication of agreement by the user, the provisioning Technology will complete installation of the Installable Software.

Cryptography

Content may contain encryption software. The country in which you are currently may have restrictions on the import,

possession, and use, and/or re-export to another country, of encryption software. BEFORE using any encryption software,

please check the country's laws, regulations and policies concerning the import, possession, or use, and re-export of encryption software, to see if this is permitted.

Java and all Java-based trademarks are trademarks of Oracle Corporation in the United States, other countries, or both.

=====
spatial4j LICENSE
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the

Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside

or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer,

and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
t-digest NOTICE
=====

The code for the t-digest was originally authored by Ted Dunning

A number of small but very helpful changes have been contributed by Adrien Grand (<https://github.com/jpountz>)

=====
t-digest LICENSE

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. **Disclaimer of Warranty.** Unless required by applicable law or

agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "{}" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright {yyyy} {name of copyright owner}

Licensed under the Apache License, Version 2.0 (the "License");

you may not use this file except in compliance with the License.

You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.server.permission.ws.template;
```

```
import org.junit.Test;
```

```
import static org.assertj.core.api.Assertions.assertThat;
```

```
import static org.sonar.test.TestUtils.hasOnlyPrivateConstructors;
```

```
public class PermissionTemplateDtoToPermissionTemplateResponseTest {
```

```
    @Test
```

```
    public void only_private_constructors() {
```

```
        assertThat(hasOnlyPrivateConstructors(PermissionTemplateDtoToPermissionTemplateResponse.class)).isTrue();
```

```
    }
```

```
}
```

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.server.permission.ws;
```

```
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.server.issue.ws.AvatarResolverImpl;
import org.sonar.server.permission.ws.template.TemplateGroupsAction;
import org.sonar.server.permission.ws.template.TemplateUsersAction;
import org.sonar.server.user.UserSession;
import org.sonar.server.ws.WsTester;

import static org.assertj.core.api.Assertions.assertThat;
import static org.mockito.Mockito.mock;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
```

```
public class PermissionsWsTest {
```

```
    WsTester ws;
```

```
    @Before
```

```
    public void setUp() {
```

```
        DbClient dbClient = mock(DbClient.class);
```

```
        UserSession userSession = mock(UserSession.class);
```

```
        PermissionWsSupport permissionWsSupport = mock(PermissionWsSupport.class);
```

```
        ws = new WsTester(new PermissionsWs(
```

```
            new TemplateUsersAction(dbClient, userSession, permissionWsSupport, new AvatarResolverImpl()),
```

```
            new TemplateGroupsAction(dbClient, userSession, permissionWsSupport));
```

```
    }
```

```
    @Test
```

```
    public void define_controller() {
```

```
        WebService.Controller controller = controller();
```

```

    assertThat(controller).isNotNull();
    assertThat(controller.description()).isNotEmpty();
    assertThat(controller.since()).isEqualTo("3.7");
    assertThat(controller.actions()).hasSize(2);
}

@Test
public void define_template_users() {
    WebService.Action action = controller().action("template_users");

    assertThat(action).isNotNull();
    assertThat(action.isPost()).isFalse();
    assertThat(action.isInternal()).isTrue();
    assertThat(action.since()).isEqualTo("5.2");
    assertThat(action.param(PARAM_PERMISSION).isRequired()).isFalse();
}

```

```

@Test
public void define_template_groups() {
    WebService.Action action = controller().action("template_groups");

    assertThat(action).isNotNull();
    assertThat(action.isPost()).isFalse();
    assertThat(action.isInternal()).isTrue();
    assertThat(action.since()).isEqualTo("5.2");
}

```

```

private WebService.Controller controller() {
    return ws.controller("api/permissions");
}
}

```

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.server.permission.index;
```

```
import java.util.Collection;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.utils.System2;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.es.EsQueueDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.es.EsTester;
import org.sonar.server.es.IndexType;
import org.sonar.server.es.IndexingResult;
import org.sonar.server.es.ProjectIndexer;
import org.sonar.server.testers.UserSessionRule;
```

```
import static java.util.Arrays.asList;
import static java.util.Collections.singletonList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.server.es.ProjectIndexer.Cause.PERMISSION_CHANGE;
```

```
public class PermissionIndexerTest {
```

```
    private static final IndexType INDEX_TYPE_FOO_AUTH =
    AuthorizationTypeSupport.getAuthorizationIndexType(FooIndexDefinition.INDEX_TYPE_FOO);
```

```
    @Rule
```

```
    public ExpectedException expectedException = ExpectedException.none();
```

```
    @Rule
```

```
    public DbTester db = DbTester.create(System2.INSTANCE);
```

```
    @Rule
```

```
    public EsTester es = EsTester.createCustom(new FooIndexDefinition());
```

```
    @Rule
```

```
    public UserSessionRule userSession = UserSessionRule.standalone();
```

```
    private FooIndex fooIndex = new FooIndex(es.client(), new AuthorizationTypeSupport(userSession));
```

```
    private FooIndexer fooIndexer = new FooIndexer(es.client());
```

```
    private PermissionIndexer underTest = new PermissionIndexer(db.getDbClient(), es.client(), fooIndexer);
```

```
    @Test
```

```

public void indexOnStartup_grants_access_to_any_user_and_to_group_Anyone_on_public_projects() {
    ComponentDto project = createAndIndexPublicProject();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();

    indexOnStartup();

    verifyAnyoneAuthorized(project);
    verifyAuthorized(project, user1);
    verifyAuthorized(project, user2);
}

@Test
public void deletion_resilience_will_deindex_projects() {
    ComponentDto project1 = createUnindexedPublicProject();
    ComponentDto project2 = createUnindexedPublicProject();
    //UserDto user1 = db.users().insertUser();
    indexOnStartup();
    assertThat(es.countDocuments(INDEX_TYPE_FOO_AUTH)).isEqualTo(2);

    // Simulate a indexation issue
    db.getClient().componentDao().delete(db.getSession(), project1.getId());
    underTest.prepareForRecovery(db.getSession(), asList(project1.getId()),
    ProjectIndexer.Cause.PROJECT_DELETION);
    assertThat(db.countRowsOfTable(db.getSession(), "es_queue")).isEqualTo(1);
    Collection<EsQueueDto> esQueueDtos = db.getClient().esQueueDao().selectForRecovery(db.getSession(),
    Long.MAX_VALUE, 2);

    underTest.index(db.getSession(), esQueueDtos);

    assertThat(db.countRowsOfTable(db.getSession(), "es_queue")).isEqualTo(0);
    assertThat(es.countDocuments(INDEX_TYPE_FOO_AUTH)).isEqualTo(1);
}

@Test
public void indexOnStartup_grants_access_to_user() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user1, USER, project);
    db.users().insertProjectPermissionOnUser(user2, ADMIN, project);

    indexOnStartup();

    // anonymous
    verifyAnyoneNotAuthorized(project);

    // user1 has access

```

```

verifyAuthorized(project, user1);

// user2 has not access (only USER permission is accepted)
verifyNotAuthorized(project, user2);
}

@Test
public void indexOnStartup_grants_access_to_group_on_private_project() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    db.users().insertProjectPermissionOnGroup(group1, USER, project);
    db.users().insertProjectPermissionOnGroup(group2, ADMIN, project);

    indexOnStartup();

    // anonymous
    verifyAnyoneNotAuthorized(project);

    // group1 has access
    verifyAuthorized(project, user1, group1);

    // group2 has not access (only USER permission is accepted)
    verifyNotAuthorized(project, user2, group2);

    // user3 is not in any group
    verifyNotAuthorized(project, user3);
}

@Test
public void indexOnStartup_grants_access_to_user_and_group() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    GroupDto group = db.users().insertGroup();
    db.users().insertMember(group, user2);
    db.users().insertProjectPermissionOnUser(user1, USER, project);
    db.users().insertProjectPermissionOnGroup(group, USER, project);

    indexOnStartup();

    // anonymous
    verifyAnyoneNotAuthorized(project);

    // has direct access

```

```

verifyAuthorized(project, user1);

// has access through group
verifyAuthorized(project, user1, group);

// no access
verifyNotAuthorized(project, user2);
}

@Test
public void indexOnStartup_does_not_grant_access_to_anybody_on_private_project() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup();

    indexOnStartup();

    verifyAnyoneNotAuthorized(project);
    verifyNotAuthorized(project, user);
    verifyNotAuthorized(project, user, group);
}

@Test
public void indexOnStartup_grants_access_to_anybody_on_public_project() {
    ComponentDto project = createAndIndexPublicProject();
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup();

    indexOnStartup();

    verifyAnyoneAuthorized(project);
    verifyAuthorized(project, user);
    verifyAuthorized(project, user, group);
}

@Test
public void indexOnStartup_grants_access_to_anybody_on_view() {
    ComponentDto view = createAndIndexView();
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup();

    indexOnStartup();

    verifyAnyoneAuthorized(view);
    verifyAuthorized(view, user);
    verifyAuthorized(view, user, group);
}

```

```

@Test
public void indexOnStartup_grants_access_on_many_projects() {
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    ComponentDto project = null;
    for (int i = 0; i < 10; i++) {
        project = createAndIndexPrivateProject();
        db.users().insertProjectPermissionOnUser(user1, USER, project);
    }

    indexOnStartup();

    verifyAnyoneNotAuthorized(project);
    verifyAuthorized(project, user1);
    verifyNotAuthorized(project, user2);
}

```

```

@Test
public void public_projects_are_visible_to_anybody_whatever_the_organization() {
    ComponentDto projectOnOrg1 = createAndIndexPublicProject(db.organizations().insert());
    ComponentDto projectOnOrg2 = createAndIndexPublicProject(db.organizations().insert());
    UserDto user = db.users().insertUser();

    indexOnStartup();

    verifyAnyoneAuthorized(projectOnOrg1);
    verifyAnyoneAuthorized(projectOnOrg2);
    verifyAuthorized(projectOnOrg1, user);
    verifyAuthorized(projectOnOrg2, user);
}

```

```

@Test
public void indexOnAnalysis_does_nothing_because_CE_does_not_touch_permissions() {
    ComponentDto project = createAndIndexPublicProject();

    underTest.indexOnAnalysis(project.uuid());

    assertThatAuthIndexHasSize(0);
    verifyAnyoneNotAuthorized(project);
}

```

```

@Test
public void permissions_are_not_updated_on_project_tags_update() {
    ComponentDto project = createAndIndexPublicProject();

    indexPermissions(project, ProjectIndexer.Cause.PROJECT_TAGS_UPDATE);

    assertThatAuthIndexHasSize(0);
}

```



```

    verifyAnyoneNotAuthorized(project);
}

@Test
public void permissions_are_not_updated_on_project_key_update() {
    ComponentDto project = createAndIndexPublicProject();

    indexPermissions(project, ProjectIndexer.Cause.PROJECT_TAGS_UPDATE);

    assertThatAuthIndexHasSize(0);
    verifyAnyoneNotAuthorized(project);
}

@Test
public void index_permissions_on_project_creation() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, USER, project);

    indexPermissions(project, ProjectIndexer.Cause.PROJECT_CREATION);

    assertThatAuthIndexHasSize(1);
    verifyAuthorized(project, user);
}

@Test
public void index_permissions_on_permission_change() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user1, USER, project);
    indexPermissions(project, ProjectIndexer.Cause.PROJECT_CREATION);
    verifyAuthorized(project, user1);
    verifyNotAuthorized(project, user2);

    db.users().insertProjectPermissionOnUser(user2, USER, project);
    indexPermissions(project, PERMISSION_CHANGE);

    verifyAuthorized(project, user1);
    verifyAuthorized(project, user1);
}

@Test
public void delete_permissions_on_project_deletion() {
    ComponentDto project = createAndIndexPrivateProject();
    UserDto user = db.users().insertUser();
    db.users().insertProjectPermissionOnUser(user, USER, project);
    indexPermissions(project, ProjectIndexer.Cause.PROJECT_CREATION);

```

```

verifyAuthorized(project, user);

db.getClient().componentDao().delete(db.getSession(), project.getId());
indexPermissions(project, ProjectIndexer.Cause.PROJECT_DELETION);

verifyNotAuthorized(project, user);
assertThatAuthIndexHasSize(0);
}

@Test
public void errors_during_indexing_are_recovered() {
    ComponentDto project = createAndIndexPublicProject();
    es.lockWrites(INDEX_TYPE_FOO_AUTH);

    IndexingResult result = indexPermissions(project, PERMISSION_CHANGE);
    assertThat(result.getTotal()).isEqualTo(1L);
    assertThat(result.getFailures()).isEqualTo(1L);

    // index is still read-only, fail to recover
    result = recover();
    assertThat(result.getTotal()).isEqualTo(1L);
    assertThat(result.getFailures()).isEqualTo(1L);
    assertThatAuthIndexHasSize(0);
    assertThatEsQueueTableHasSize(1);

    es.unlockWrites(INDEX_TYPE_FOO_AUTH);

    result = recover();
    assertThat(result.getTotal()).isEqualTo(1L);
    assertThat(result.getFailures()).isEqualTo(0L);
    verifyAnyoneAuthorized(project);
    assertThatEsQueueTableHasSize(0);
}

private void assertThatAuthIndexHasSize(int expectedSize) {
    IndexType authIndexType = underTest.getIndexTypes().iterator().next();
    assertThat(es.countDocuments(authIndexType)).isEqualTo(expectedSize);
}

private void indexOnStartup() {
    underTest.indexOnStartup(underTest.getIndexTypes());
}

private void verifyAuthorized(ComponentDto project, UserDto user) {
    login(user);
    verifyAuthorized(project, true);
}

```

```

private void verifyAuthorized(ComponentDto project, UserDto user, GroupDto group) {
    logIn(user).setGroups(group);
    verifyAuthorized(project, true);
}

private void verifyNotAuthorized(ComponentDto project, UserDto user) {
    logIn(user);
    verifyAuthorized(project, false);
}

private void verifyNotAuthorized(ComponentDto project, UserDto user, GroupDto group) {
    logIn(user).setGroups(group);
    verifyAuthorized(project, false);
}

private void verifyAnyoneAuthorized(ComponentDto project) {
    userSession.anonymous();
    verifyAuthorized(project, true);
}

private void verifyAnyoneNotAuthorized(ComponentDto project) {
    userSession.anonymous();
    verifyAuthorized(project, false);
}

private void verifyAuthorized(ComponentDto project, boolean expectedAccess) {
    assertThat(fooIndex.hasAccessToProject(project.uuid())).isEqualTo(expectedAccess);
}

private UserSessionRule logIn(UserDto u) {
    userSession.logIn(u.getLogin()).setUserId(u.getId());
    return userSession;
}

private IndexingResult indexPermissions(ComponentDto project, ProjectIndexer.Cause cause) {
    DbSession dbSession = db.getSession();
    Collection<EsQueueDto> items = underTest.prepareForRecovery(dbSession, singletonList(project.uuid()), cause);
    dbSession.commit();
    return underTest.index(dbSession, items);
}

private ComponentDto createUnindexedPublicProject() {
    ComponentDto project = db.components().insertPublicProject();
    return project;
}

private ComponentDto createAndIndexPrivateProject() {
    ComponentDto project = db.components().insertPrivateProject();
}

```

```

    fooIndexer.indexOnAnalysis(project.uuid());
    return project;
}

private ComponentDto createAndIndexPublicProject() {
    ComponentDto project = db.components().insertPublicProject();
    fooIndexer.indexOnAnalysis(project.uuid());
    return project;
}

private ComponentDto createAndIndexView() {
    ComponentDto view = db.components().insertView();
    fooIndexer.indexOnAnalysis(view.uuid());
    return view;
}

private ComponentDto createAndIndexPublicProject(OrganizationDto org) {
    ComponentDto project = db.components().insertPublicProject(org);
    fooIndexer.indexOnAnalysis(project.uuid());
    return project;
}

private IndexingResult recover() {
    Collection<EsQueueDto> items = db.getDbClient().esQueueDao().selectForRecovery(db.getSession(),
System.currentTimeMillis() + 1_000L, 10);
    return underTest.index(db.getSession(), items);
}

private void assertThatEsQueueTableHasSize(int expectedSize) {
    assertThat(db.countRowsOfTable("es_queue")).isEqualTo(expectedSize);
}

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 */

```

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws.template;
```

```
import java.util.Date;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;
```

```
import static org.assertj.core.api.Assertions.assertThat;
import static org.mockito.Mockito.spy;
import static org.mockito.Mockito.when;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_DESCRIPTION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;
```

```
public class UpdateTemplateActionTest extends BasePermissionWsTest<UpdateTemplateAction> {
```

```
    private System2 system = spy(System2.INSTANCE);
    private PermissionTemplateDto template;
```

```
    @Override
```

```
    protected UpdateTemplateAction buildWsAction() {
        return new UpdateTemplateAction(db.getClient(), userSession, system, newPermissionWsSupport());
    }
}
```

```
    @Before
```

```
    public void setUp() {
        when(system.now()).thenReturn(1_440_512_328_743L);
        template = db.getClient().permissionTemplateDao().insert(db.getSession(), newPermissionTemplateDto()
            .setOrganizationUuid(db.getDefaultOrganization().getUuid())
            .setName("Permission Template Name")
            .setDescription("Permission Template Description")
            .setKeyPattern(".*\\.pattern\\..*"));
    }
}
```

```

        .setCreatedAt(new Date(1_000_000_000_000L))
        .setUpdatedAt(new Date(1_000_000_000_000L));
db.commit();
}

@Test
public void update_all_permission_template_fields() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    String result = call(template.getUuid(), "Finance", "Permissions for financially related projects",
        ".*\\.finance\\.\\.\\.");

    assertJson(result)
        .ignoreFields("id")
        .isSimilarTo(getClass().getResource("update_template-example.json"));
    PermissionTemplateDto finance = selectTemplateInDefaultOrganization("Finance");
    assertThat(finance.getName()).isEqualTo("Finance");
    assertThat(finance.getDescription()).isEqualTo("Permissions for financially related projects");
    assertThat(finance.getKeyPattern()).isEqualTo(".*\\.finance\\.\\.\\.");
    assertThat(finance.getUuid()).isEqualTo(template.getUuid());
    assertThat(finance.getCreatedAt()).isEqualTo(template.getCreatedAt());
    assertThat(finance.getUpdatedAt().getTime()).isEqualTo(1440512328743L);
}

@Test
public void update_with_the_same_values() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    call(template.getUuid(), template.getName(), template.getDescription(), template.getKeyPattern());

    PermissionTemplateDto reloaded = db.getDbClient().permissionTemplateDao().selectByUuid(db.getSession(),
        template.getUuid());
    assertThat(reloaded.getName()).isEqualTo(template.getName());
    assertThat(reloaded.getDescription()).isEqualTo(template.getDescription());
    assertThat(reloaded.getKeyPattern()).isEqualTo(template.getKeyPattern());
}

@Test
public void update_name_only() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    call(template.getUuid(), "Finance", null, null);

    PermissionTemplateDto finance = selectTemplateInDefaultOrganization("Finance");
    assertThat(finance.getName()).isEqualTo("Finance");
    assertThat(finance.getDescription()).isEqualTo(template.getDescription());
    assertThat(finance.getKeyPattern()).isEqualTo(template.getKeyPattern());
}

```

```

@Test
public void fail_if_key_is_not_found() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-key' is not found");

    call("unknown-key", null, null, null);
}

@Test
public void fail_if_name_already_exists_in_another_template() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("A template with the name '" + anotherTemplate.getName() + "' already exists
(case insensitive).");

    call(this.template.getUuid(), anotherTemplate.getName(), null, null);
}

@Test
public void fail_if_key_is_not_provided() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    call(null, "Finance", null, null);
}

@Test
public void fail_if_name_empty() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("The template name must not be blank");

    call(template.getUuid(), "", null, null);
}

@Test
public void fail_if_name_has_just_whitespaces() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("The template name must not be blank");
}

```

```

    call(template.getUuid(), " \r\n", null, null);
}

@Test
public void fail_if_regexp_if_not_valid() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("The 'projectKeyPattern' parameter must be a valid Java regular expression.
'[azerty' was passed");

    call(template.getUuid(), "Finance", null, "[azerty]");
}

@Test
public void fail_if_name_already_exists_in_database_case_insensitive() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();

    String nameCaseInsensitive = anotherTemplate.getName().toUpperCase();
    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("A template with the name '" + nameCaseInsensitive + "' already exists (case
insensitive).");

    call(this.template.getUuid(), nameCaseInsensitive, null, null);
}

@Test
public void fail_if_not_logged_in() throws Exception {
    expectedException.expect(UnauthorizedException.class);
    userSession.anonymous();

    call(template.getUuid(), "Finance", null, null);
}

@Test
public void fail_if_not_admin() throws Exception {
    userSession.logIn().addPermission(SCAN, db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    call(template.getUuid(), "Finance", null, null);
}

private String call(@Nullable String key, @Nullable String name, @Nullable String description, @Nullable String
projectPattern) {
    TestRequest request = newRequest();

```



```

if (key != null) {
    request.setParam(PARAM_ID, key);
}
if (name != null) {
    request.setParam(PARAM_NAME, name);
}
if (description != null) {
    request.setParam(PARAM_DESCRIPTION, description);
}
if (projectPattern != null) {
    request.setParam(PARAM_PROJECT_KEY_PATTERN, projectPattern);
}

return request.execute().getInput();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import javax.annotation.Nullable;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.api.utils.internal.TestSystem2;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;
import org.sonar.server.ws.TestResponse;

```

```

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_DESCRIPTION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY_PATTERN;

public class CreateTemplateActionTest extends BasePermissionWsTest<CreateTemplateAction> {

    private static final long NOW = 1_440_512_328_743L;
    private System2 system = new TestSystem2().setNow(NOW);

    @Override
    protected CreateTemplateAction buildWsAction() {
        return new CreateTemplateAction(db.getClient(), userSession, system, newPermissionWsSupport());
    }

    @Test
    public void create_full_permission_template() throws Exception {
        loginAsAdmin(db.getDefaultOrganization());

        TestResponse result = newRequest("Finance", "Permissions for financially related projects", ".*\\.finance\\.\\.*.");

        assertJson(result.getInput())
            .ignoreFields("id")
            .isSimilarTo(getClass().getResource("create_template-example.json"));
        PermissionTemplateDto finance = selectTemplateInDefaultOrganization("Finance");
        assertThat(finance.getName()).isEqualTo("Finance");
        assertThat(finance.getDescription()).isEqualTo("Permissions for financially related projects");
        assertThat(finance.getKeyPattern()).isEqualTo(".*\\.finance\\.\\.*.");
        assertThat(finance.getUuid()).isNotEmpty();
        assertThat(finance.getCreatedAt().getTime()).isEqualTo(NOW);
        assertThat(finance.getUpdatedAt().getTime()).isEqualTo(NOW);
    }

    @Test
    public void create_minimalist_permission_template() throws Exception {
        loginAsAdmin(db.getDefaultOrganization());

        newRequest("Finance", null, null);

        PermissionTemplateDto finance = selectTemplateInDefaultOrganization("Finance");
        assertThat(finance.getName()).isEqualTo("Finance");
        assertThat(finance.getDescription()).isNullOrEmpty();
        assertThat(finance.getKeyPattern()).isNullOrEmpty();
        assertThat(finance.getUuid()).isNotEmpty();
        assertThat(finance.getCreatedAt().getTime()).isEqualTo(NOW);
        assertThat(finance.getUpdatedAt().getTime()).isEqualTo(NOW);
    }
}

```

```

}

@Test
public void fail_if_name_not_provided() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(null, null, null);
}

@Test
public void fail_if_name_empty() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("The template name must not be blank");

    newRequest("", null, null);
}

@Test
public void fail_if_regexp_if_not_valid() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("The 'projectKeyPattern' parameter must be a valid Java regular expression. '[azerty]' was passed");

    newRequest("Finance", null, "[azerty]");
}

@Test
public void fail_if_name_already_exists_in_database_case_insensitive() throws Exception {
    loginAsAdmin(db.getDefaultOrganization());
    PermissionTemplateDto template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("A template with the name '" + template.getName() + "' already exists (case insensitive).");

    newRequest(template.getName(), null, null);
}

@Test
public void fail_if_not_admin() throws Exception {
    userSession.logIn().addPermission(ADMINISTER_QUALITY_PROFILES, db.getDefaultOrganization());
}

```

```

        expectedException.expect(ForbiddenException.class);

        newRequest("Finance", null, null);
    }

    private TestResponse newRequest(@Nullable String name, @Nullable String description, @Nullable String
projectPattern) {
        TestRequest request = newRequest();
        if (name != null) {
            request.setParam(PARAM_NAME, name);
        }
        if (description != null) {
            request.setParam(PARAM_DESCRIPTION, description);
        }
        if (projectPattern != null) {
            request.setParam(PARAM_PROJECT_KEY_PATTERN, projectPattern);
        }

        return request.execute();
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Optional;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.utils.System2;
import org.sonar.db.DbClient;

```

```

import org.sonar.db.DbSession;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Objects.requireNonNull;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class AddProjectCreatorToTemplateAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final PermissionWsSupport wsSupport;
    private final UserSession userSession;
    private final System2 system;

    public AddProjectCreatorToTemplateAction(DbClient dbClient, PermissionWsSupport wsSupport, UserSession
userSession, System2 system) {
        this.dbClient = dbClient;
        this.wsSupport = wsSupport;
        this.userSession = userSession;
        this.system = system;
    }

    private static AddProjectCreatorToTemplateRequest toWsRequest(Request request) {
        AddProjectCreatorToTemplateRequest wsRequest = AddProjectCreatorToTemplateRequest.builder()
            .setPermission(request.mandatoryParam(PARAM_PERMISSION))
            .setTemplateId(request.param(PARAM_TEMPLATE_ID))
            .setOrganization(request.param(PARAM_ORGANIZATION))
            .setTemplateName(request.param(PARAM_TEMPLATE_NAME))
            .build();
        validateProjectPermission(wsRequest.getPermission());
        return wsRequest;
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction("add_project_creator_to_template")

```

```

        .setDescription("Add a project creator to a permission template.<br>" +
            "Requires the following permission: 'Administer System'.")
        .setSince("6.0")
        .setPost(true)
        .setHandler(this);

createTemplateParameters(action);
createProjectPermissionParameter(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    doHandle(toWsRequest(request));
    response.noContent();
}

private void doHandle(AddProjectCreatorToTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, WsTemplateRef.newTemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName()));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        Optional<PermissionTemplateCharacteristicDto> templatePermission =
            dbClient.permissionTemplateCharacteristicDao()
                .selectByPermissionAndTemplateId(dbSession, request.getPermission(), template.getId());
        if (templatePermission.isPresent()) {
            updateTemplatePermission(dbSession, templatePermission.get());
        } else {
            addTemplatePermission(dbSession, request, template);
        }
    }
}

private void addTemplatePermission(DbSession dbSession, AddProjectCreatorToTemplateRequest request,
    PermissionTemplateDto template) {
    long now = system.now();
    dbClient.permissionTemplateCharacteristicDao().insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(request.getPermission())
        .setTemplateId(template.getId())
        .setWithProjectCreator(true)
        .setCreatedAt(now)
        .setUpdatedAt(now));
    dbSession.commit();
}

private void updateTemplatePermission(DbSession dbSession, PermissionTemplateCharacteristicDto
    templatePermission) {
    PermissionTemplateCharacteristicDto targetTemplatePermission = templatePermission

```

```
.setUpdatedAt(system.now())
.setWithProjectCreator(true);
dbClient.permissionTemplateCharacteristicDao().update(dbSession, targetTemplatePermission);
dbSession.commit();
}
```

```
private static class AddProjectCreatorToTemplateRequest {
    private final String templateId;
    private final String organization;
    private final String templateName;
    private final String permission;
```

```
    private AddProjectCreatorToTemplateRequest(Builder builder) {
        this.templateId = builder.templateId;
        this.organization = builder.organization;
        this.templateName = builder.templateName;
        this.permission = requireNonNull(builder.permission);
    }
```

```
@CheckForNull
public String getTemplateId() {
    return templateId;
}
```

```
@CheckForNull
public String getOrganization() {
    return organization;
}
```

```
@CheckForNull
public String getTemplateName() {
    return templateName;
}
```

```
public String getPermission() {
    return permission;
}
```

```
public static Builder builder() {
    return new Builder();
}
}
```

```
private static class Builder {
    private String templateId;
    private String organization;
    private String templateName;
    private String permission;
```

```

private Builder() {
    // enforce method constructor
}

public Builder setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

public Builder setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}

public Builder setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}

public Builder setPermission(@Nullable String permission) {
    this.permission = permission;
    return this;
}

public AddProjectCreatorToTemplateRequest build() {
    return new AddProjectCreatorToTemplateRequest(this);
}
}
}
{
    "projects": [],
    "permissions": [
        {
            "key": "user",
            "name": "Browse",
            "description": "Ability to access a project, browse its measures, and create/edit issues for it."
        },
        {
            "key": "admin",
            "name": "Administer",
            "description": "Ability to access project settings and perform administration tasks. (Users will also need
\\\"Browse\\\" permission)"
        },
        {
            "key": "issueadmin",
            "name": "Administer Issues",
            "description": "Grants the permission to perform advanced editing on issues: marking an issue False Positive /

```



```

Won't Fix or changing an Issue's severity. (Users will also need \"Browse\" permission)
    },
    {
        "key": "codeviewer",
        "name": "See Source Code",
        "description": "Ability to view the project's source code. (Users will also need \"Browse\" permission)"
    }
],
"paging": {
    "pageIndex": 1,
    "pageSize": 25,
    "total": 0
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

import java.util.Arrays;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.utils.internal.AlwaysIncreasingSystem2;
import org.sonar.api.web.UserRole;
import org.sonar.db.DbClient;
import org.sonar.db.DbTester;
import org.sonar.db.component.ResourceTypesRule;
import org.sonar.db.organization.OrganizationDto;

```

```

import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.permission.template.PermissionTemplateTesting;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.GroupTesting;
import org.sonar.db.user.UserDto;
import org.sonar.db.user.UserTesting;
import org.sonar.server.component.ComponentFinder;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.organization.TestDefaultOrganizationProvider;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.testers.UserSessionRule;
import org.sonar.server.usergroups.DefaultGroupFinder;
import org.sonar.server.usergroups.ws.GroupWsSupport;
import org.sonar.server.ws.TestRequest;
import org.sonar.server.ws.TestResponse;
import org.sonar.server.ws.WsActionTester;

import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.fail;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class DeleteTemplateActionTest {

    @Rule
    public DbTester db = DbTester.create(new AlwaysIncreasingSystem2());
    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    private UserSessionRule userSession = UserSessionRule.standalone();
    private DbClient dbClient = db.getDbClient();
    private final ResourceTypesRule resourceTypes = new
ResourceTypesRule().setRootQualifiers(Qualifiers.PROJECT);
    private final ResourceTypesRule resourceTypesWithViews = new
ResourceTypesRule().setRootQualifiers(Qualifiers.PROJECT, Qualifiers.VIEW);
    private DefaultTemplatesResolver defaultTemplatesResolver = new
DefaultTemplatesResolverImpl(resourceTypes);
    private DefaultTemplatesResolver defaultTemplatesResolverWithViews = new
DefaultTemplatesResolverImpl(resourceTypesWithViews);

    private WsActionTester underTestWithoutViews;
    private WsActionTester underTestWithViews;

```

```

@Before
public void setUp() throws Exception {
    GroupWsSupport groupWsSupport = new GroupWsSupport(dbClient, TestDefaultOrganizationProvider.from(db),
new DefaultGroupFinder(db.getDbClient()));
    this.underTestWithoutViews = new WsActionTester(new DeleteTemplateAction(dbClient, userSession,
        new PermissionWsSupport(dbClient, new ComponentFinder(dbClient, resourceTypes), groupWsSupport),
        defaultTemplatesResolver));
    this.underTestWithViews = new WsActionTester(new DeleteTemplateAction(dbClient, userSession,
        new PermissionWsSupport(dbClient, new ComponentFinder(dbClient, resourceTypes), groupWsSupport),
        defaultTemplatesResolverWithViews));
}

```

```

@Test
public void delete_template_in_db() throws Exception {
    runOnAllUnderTests((underTest) -> {
        OrganizationDto organization = db.organizations().insert();
        PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
        db.organizations().setDefaultTemplates(
            db.permissionTemplates().insertTemplate(organization),
            db.permissionTemplates().insertTemplate(organization));
        loginAsAdmin(organization);

        TestResponse result = newRequestByUuid(underTest, template.getUuid());

        assertThat(result.getInput()).isEmpty();
        assertTemplateDoesNotExist(template);
    });
}

```

```

@Test
public void delete_template_by_name_case_insensitive() throws Exception {
    runOnAllUnderTests((underTest) -> {
        OrganizationDto organization = db.organizations().insert();
        db.organizations().setDefaultTemplates(
            db.permissionTemplates().insertTemplate(organization),
            db.permissionTemplates().insertTemplate(organization));
        PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
        loginAsAdmin(organization);
        newRequestByName(underTest, organization, template);

        assertTemplateDoesNotExist(template);
    });
}

```

```

@Test
public void
delete_template_by_name_returns_empty_when_no_organization_is_provided_and_templates_does_not_belong_to
_default_organization() throws Exception {

```

```

OrganizationDto organization = db.organizations().insert();
db.organizations().setDefaultTemplates(
    db.permissionTemplates().insertTemplate(organization),
    db.permissionTemplates().insertTemplate(organization));
PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
loginAsAdmin(organization);

runOnAllUnderTests((underTest) -> {
    try {
        newRequestByName(underTest, null, template);
        fail("NotFoundException should have been raised");
    } catch (NotFoundException e) {
        assertThat(e).hasMessage(
            "Permission template with name '" + template.getName() + "' is not found (case insensitive) in organization
with key '" + db.getDefaultOrganization().getKey() + "'");
    }
});
}

@Test
public void delete_template_by_name_returns_empty_when_wrong_organization_is_provided() throws Exception
{
    OrganizationDto organization = db.organizations().insert();
    db.organizations().setDefaultTemplates(
        db.permissionTemplates().insertTemplate(organization),
        db.permissionTemplates().insertTemplate(organization));
    PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
    OrganizationDto otherOrganization = db.organizations().insert();
    loginAsAdmin(organization);

    runOnAllUnderTests((underTest) -> {
        try {
            newRequestByName(underTest, otherOrganization, template);
            fail("NotFoundException should have been raised");
        } catch (NotFoundException e) {
            assertThat(e)
                .hasMessage("Permission template with name '" + template.getName() + "' is not found (case insensitive) in
organization with key '" + otherOrganization.getKey() + "'");
        }
    });
}

@Test
public void fail_if_uuid_is_not_known_without_views() throws Exception {
    userSession.logIn();

    expectedException.expect(NotFoundException.class);
}

```

```

    newRequestByUuid(underTestWithoutViews, "unknown-template-uuid");
}

@Test
public void fail_if_uuid_is_not_known_with_views() throws Exception {
    userSession.logIn();

    expectedException.expect(NotFoundException.class);

    newRequestByUuid(underTestWithViews, "unknown-template-uuid");
}

@Test
public void fail_to_delete_by_uuid_if_template_is_default_template_for_project_without_views() throws
Exception {
    fail_to_delete_by_uuid_if_template_is_default_template_for_project(this.underTestWithoutViews);
}

@Test
public void fail_to_delete_by_uuid_if_template_is_default_template_for_project_with_views() throws Exception {
    fail_to_delete_by_uuid_if_template_is_default_template_for_project(this.underTestWithViews);
}

private void fail_to_delete_by_uuid_if_template_is_default_template_for_project(WsActionTester underTest)
throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto projectTemplate = insertTemplateAndAssociatedPermissions(organization);
    db.organizations().setDefaultTemplates(projectTemplate,
        db.permissionTemplates().insertTemplate(organization));
    loginAsAdmin(organization);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("It is not possible to delete the default permission template for projects");

    newRequestByUuid(underTest, projectTemplate.getUuid());
}

@Test
public void fail_to_delete_by_name_if_template_is_default_template_for_project_without_views() throws
Exception {
    fail_to_delete_by_name_if_template_is_default_template_for_project(this.underTestWithoutViews);
}

@Test
public void fail_to_delete_by_name_if_template_is_default_template_for_project_with_views() throws Exception
{
    fail_to_delete_by_name_if_template_is_default_template_for_project(this.underTestWithViews);
}

```

```

private void fail_to_delete_by_name_if_template_is_default_template_for_project(WsActionTester underTest)
throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto projectTemplate = insertTemplateAndAssociatedPermissions(organization);
    db.organizations().setDefaultTemplates(projectTemplate,
db.permissionTemplates().insertTemplate(organization));
    loginAsAdmin(organization);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("It is not possible to delete the default permission template for projects");

    newRequestByName(underTest, organization.getKey(), projectTemplate.getName());
}

@Test
public void fail_to_delete_by_uuid_if_template_is_default_template_for_view_with_views() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
    db.organizations().setDefaultTemplates(db.permissionTemplates().insertTemplate(organization), template);
    loginAsAdmin(organization);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("It is not possible to delete the default permission template for views");

    newRequestByUuid(this.underTestWithViews, template.getUuid());
}

@Test
public void
default_template_for_views_can_be_deleted_by_uuid_if_views_is_not_installed_and_default_template_for_views_
is_reset() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto projectTemplate = db.permissionTemplates().insertTemplate(organization);
    PermissionTemplateDto viewTemplate = insertTemplateAndAssociatedPermissions(organization);
    db.organizations().setDefaultTemplates(projectTemplate, viewTemplate);
    loginAsAdmin(organization);

    newRequestByUuid(this.underTestWithoutViews, viewTemplate.getUuid());

    assertTemplateDoesNotExist(viewTemplate);

    assertThat(db.getClient().organizationDao().getDefaultTemplates(db.getSession(), organization.getUuid())
        .get().getViewUuid())
        .isNull();
}

@Test

```

```

public void fail_to_delete_by_uuid_if_not_logged_in_without_views() throws Exception {
    expectedException.expect(UnauthorizedException.class);

    newRequestByUuid(underTestWithoutViews, "uuid");
}

@Test
public void fail_to_delete_by_uuid_if_not_logged_in_with_views() throws Exception {
    expectedException.expect(UnauthorizedException.class);

    newRequestByUuid(underTestWithViews, "uuid");
}

@Test
public void fail_to_delete_by_name_if_not_logged_in_without_views() throws Exception {
    expectedException.expect(UnauthorizedException.class);

    newRequestByName(underTestWithoutViews, "whatever", "name");
}

@Test
public void fail_to_delete_by_name_if_not_logged_in_with_views() throws Exception {
    expectedException.expect(UnauthorizedException.class);

    newRequestByName(underTestWithViews, "whatever", "name");
}

@Test
public void fail_to_delete_by_uuid_if_not_admin_without_views() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequestByUuid(underTestWithoutViews, template.getUuid());
}

@Test
public void fail_to_delete_by_uuid_if_not_admin_with_views() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = insertTemplateAndAssociatedPermissions(organization);
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequestByUuid(underTestWithViews, template.getUuid());
}

```

```

@Test
public void fail_to_delete_by_name_if_not_admin_without_views() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template = db.permissionTemplates().insertTemplate(organization);
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequestByName(underTestWithoutViews, organization.getKey(), template.getName());
}

@Test
public void fail_to_delete_by_name_if_not_admin_with_views() throws Exception {
    OrganizationDto organization = db.organizations().insert();
    PermissionTemplateDto template =
db.permissionTemplates().insertTemplate(PermissionTemplateTesting.newPermissionTemplateDto()
    .setOrganizationUuid(organization.getUuid())
    .setName("the name"));
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequestByName(underTestWithViews, organization, template);
}

@Test
public void fail_if_neither_uuid_nor_name_is_provided_without_views() throws Exception {
    userSession.logIn();

    expectedException.expect(BadRequestException.class);

    newRequestByUuid(underTestWithoutViews, null);
}

@Test
public void fail_if_neither_uuid_nor_name_is_provided_with_views() throws Exception {
    userSession.logIn();

    expectedException.expect(BadRequestException.class);

    newRequestByUuid(underTestWithViews, null);
}

@Test
public void fail_if_both_uuid_and_name_are_provided_without_views() {
    userSession.logIn();
}

```



```

expectedException.expect(BadRequestException.class);

underTestWithoutViews.newRequest().setMethod("POST")
    .setParam(PARAM_TEMPLATE_ID, "uuid")
    .setParam(PARAM_TEMPLATE_NAME, "name")
    .execute();
}

@Test
public void fail_if_both_uuid_and_name_are_provided_with_views() {
    userSession.logIn();

    expectedException.expect(BadRequestException.class);

    underTestWithViews.newRequest().setMethod("POST")
        .setParam(PARAM_TEMPLATE_ID, "uuid")
        .setParam(PARAM_TEMPLATE_NAME, "name")
        .execute();
}

// @Test
// public void delete_perm_tpl_characteristic_when_delete_template() throws Exception {
// db.getClient().permissionTemplateCharacteristicDao().insert(db.getSession(), new
PermissionTemplateCharacteristicDto()
// .setPermission(UserRole.USER)
// .setTemplateId(template.getId())
// .setWithProjectCreator(true)
// .setCreatedAt(new Date().getTime())
// .setUpdatedAt(new Date().getTime()));
// db.commit();
//
//
// newRequest(template.getUuid());
//
//
// assertThat(db.getClient().permissionTemplateCharacteristicDao().selectByTemplateIds(db.getSession(),
// asList(template.getId()))).isEmpty();
// }

private UserSessionRule loginAsAdmin(OrganizationDto organization) {
    return userSession.logIn().addPermission(AADMINISTER, organization);
}

private void runOnAllUnderTests(ConsumerWithException<WsActionTester> consumer) throws Exception {
    for (WsActionTester underTest : Arrays.asList(underTestWithoutViews, underTestWithViews)) {
        consumer.accept(underTest);
    }
}

private interface ConsumerWithException<T> {

```

```

    void accept(T e) throws Exception;
}

private PermissionTemplateDto insertTemplateAndAssociatedPermissions(OrganizationDto organization) {
    PermissionTemplateDto dto = db.permissionTemplates().insertTemplate(organization);
    UserDto user = db.getClient().userDao().insert(db.getSession(), UserTesting.newUserDto().setActive(true));
    GroupDto group = db.getClient().groupDao().insert(db.getSession(), GroupTesting.newGroupDto());
    db.getClient().permissionTemplateDao().insertUserPermission(db.getSession(), dto.getId(), user.getId(),
    UserRole.ADMIN);
    db.getClient().permissionTemplateDao().insertGroupPermission(db.getSession(), dto.getId(), group.getId(),
    UserRole.CODEVIEWER);
    db.commit();
    return dto;
}

private TestResponse newRequestByUuid(WsActionTester actionTester, @Nullable String id) {
    TestRequest request = actionTester.newRequest().setMethod("POST");
    if (id != null) {
        request.setParam(PARAM_TEMPLATE_ID, id);
    }
    return request.execute();
}

private TestResponse newRequestByName(WsActionTester actionTester, @Nullable OrganizationDto
organizationDto, @Nullable PermissionTemplateDto permissionTemplateDto)
throws Exception {
    return newRequestByName(
        actionTester,
        organizationDto == null ? null : organizationDto.getKey(),
        permissionTemplateDto == null ? null : permissionTemplateDto.getName());
}

private TestResponse newRequestByName(WsActionTester actionTester, @Nullable String organizationKey,
@Nullable String name) {
    TestRequest request = actionTester.newRequest().setMethod("POST");
    if (organizationKey != null) {
        request.setParam(PARAM_ORGANIZATION, organizationKey);
    }
    if (name != null) {
        request.setParam(PARAM_TEMPLATE_NAME, name);
    }

    return request.execute();
}

private void assertTemplateDoesNotExist(PermissionTemplateDto template) {
    assertThat(db.getClient().permissionTemplateDao().selectByUuid(db.getSession(),
template.getUuid())).isNull();
}

```

```

}

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.index;

import org.elasticsearch.index.query.MatchAllQueryBuilder;
import org.elasticsearch.index.query.QueryBuilder;
import org.elasticsearch.join.query.HasParentQueryBuilder;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.GroupTesting;
import org.sonar.server.testers.UserSessionRule;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.test.JsonAssert.assertJson;

public class AuthorizationTypeSupportTest {

    @Rule
    public UserSessionRule userSession = UserSessionRule.standalone();

    private AuthorizationTypeSupport underTest = new AuthorizationTypeSupport(userSession);

    @Test
    public void createQueryFilter_does_not_include_permission_filters_if_user_is_flagged_as_root() {
        userSession.loggedIn().setRoot();

        QueryBuilder filter = underTest.createQueryFilter();

```

```

    assertThat(filter).isInstanceOf(MatchAllQueryBuilder.class);
}

@Test
public void createQueryFilter_sets_filter_on_anyone_group_if_user_is_anonymous() {
    userSession.anonymous();

    HasParentQueryBuilder filter = (HasParentQueryBuilder) underTest.createQueryFilter();

    assertThat(filter.toString()).isSimilarTo("{ " +
        "  \"has_parent\": { " +
        "    \"query\": { " +
        "      \"bool\": { " +
        "        \"filter\": [{ " +
        "          \"bool\": { " +
        "            \"should\": [{ " +
        "              \"term\": { " +
        "                \"allowAnyone\": {\"value\": true} " +
        "              } " +
        "            } " +
        "          } " +
        "        ] " +
        "      } " +
        "    } " +
        "  }, " +
        "  \"parent_type\": \"authorization\" " +
        " }");
}

@Test
public void createQueryFilter_sets_filter_on_anyone_and_user_id_if_user_is_logged_in_but_has_no_groups() {
    userSession.logIn().setUserId(1234);

    HasParentQueryBuilder filter = (HasParentQueryBuilder) underTest.createQueryFilter();

    assertThat(filter.toString()).isSimilarTo("{ " +
        "  \"has_parent\": { " +
        "    \"query\": { " +
        "      \"bool\": { " +
        "        \"filter\": [{ " +
        "          \"bool\": { " +
        "            \"should\": [ " +
        "              { " +
        "                \"term\": { " +
        "                  \"allowAnyone\": {\"value\": true} " +
        "                } " +
        "              }, " +

```

```

        "    {" +
        "      \"term\": {" +
        "        \"userIds\": {\"value\": 1234} +
        "      }" +
        "    }" +
        "  ]" +
        " }" +
        " ]]" +
        " }" +
        " }," +
        "   \"parent_type\": \"authorization\"" +
        " }" +
        "});
}

```

```
@Test
```

```
public void
```

```
createQueryFilter_sets_filter_on_anyone_and_user_id_and_group_ids_if_user_is_logged_in_and_has_groups() {
```

```
    GroupDto group1 = GroupTesting.newGroupDto().setId(10);
```

```
    GroupDto group2 = GroupTesting.newGroupDto().setId(11);
```

```
    userSession.logIn().setUserId(1234).setGroups(group1, group2);
```

```
    HasParentQueryBuilder filter = (HasParentQueryBuilder) underTest.createQueryFilter();
```

```
    assertJson(filter.toString()).isSimilarTo("{\"" +
```

```
      \"has_parent\": {" +
```

```
        \"query\": {" +
```

```
          \"bool\": {" +
```

```
            \"filter\": [{" +
```

```
              \"bool\": {" +
```

```
                \"should\": [" +
```

```
                  {" +
```

```
                    \"term\": {" +
```

```
                      \"allowAnyone\": {\"value\": true}" +
```

```
                    }" +
```

```
                  }," +
```

```
                {" +
```

```
                  \"term\": {" +
```

```
                    \"userIds\": {\"value\": 1234}" +
```

```
                  }" +
```

```
                }," +
```

```
              {" +
```

```
                \"term\": {" +
```

```
                  \"groupIds\": {\"value\": 10}" +
```

```
                }" +
```

```
              }," +
```

```
            {" +
```

```
              \"term\": {" +
```

```

"      \"groupIds\": {\"value\": 11} +
"      }" +
"    }" +
"  ]" +
" }" +
"  }]" +
" }" +
" }," +
"  \"parent_type\": \"authorization\"" +
" }" +
"}");
}
}

```

ASM 4 License

Copyright (c) 2000-2011 INRIA, France Telecom
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holders nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

/*

- * SonarQube
- * Copyright (C) 2009-2018 SonarSource SA
- * [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

```

*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import * as React from 'react';
import * as PropTypes from 'prop-types';
import Form from './Form';
import { createPermissionTemplate } from '../api/permissions';
import { Button } from '../components/ui/buttons';
import { translate } from '../helpers/i10n';

interface Props {
  organization?: { key: string };
  ready?: boolean;
  refresh: () => Promise<void>;
}

interface State {
  createModal: boolean;
}

export default class Header extends React.PureComponent<Props, State> {
  mounted = false;

  static contextTypes = {
    router: PropTypes.object
  };

  state: State = { createModal: false };

  componentDidMount() {
    this.mounted = true;
  }

  componentWillUnmount() {
    this.mounted = false;
  }
}

```

```

handleCreateClick = () => {
  this.setState({ createModal: true });
};

handleCreateModalClose = () => {
  if (this.mounted) {
    this.setState({ createModal: false });
  }
};

handleCreateModalSubmit = (data: {
  description: string;
  name: string;
  projectKeyPattern: string;
}) => {
  const organization = this.props.organization && this.props.organization.key;
  return createPermissionTemplate({ ...data, organization }).then(response => {
    this.props.refresh().then(() => {
      const pathname = organization
        ? `~/organizations/${organization}/permission_templates`
        : '/permission_templates';
      this.context.router.push({ pathname, query: { id: response.permissionTemplate.id } });
    });
  });
};

render() {
  return (
    <header className="page-header" id="project-permissions-header">
      <h1 className="page-title">{translate('permission_templates.page')}</h1>

      {!this.props.ready && <i className="spinner" />}

      <div className="page-actions">
        <Button onClick={this.handleCreateClick}>{translate('create')}</Button>

        {this.state.createModal && (
          <Form
            confirmButtonText={translate('create')}
            header={translate('permission_template.new_template')}
            onClose={this.handleCreateModalClose}
            onSubmit={this.handleCreateModalSubmit}
          />
        )}
      </div>

      <p className="page-description">{translate('permission_templates.page.description')}</p>

```



```

</header>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
@ParametersAreNonnullByDefault
package org.sonar.server.permission.index;

import javax.annotation.ParametersAreNonnullByDefault;
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission;

```

```

import javax.annotation.Nullable;

import static java.util.Objects.requireNonNull;

public class UserPermissionChange extends PermissionChange {

    private final UserId userId;

    public UserPermissionChange(Operation operation, String organizationUuid, String permission, @Nullable
ProjectId projectId,
    UserId userId) {
        super(operation, organizationUuid, permission, projectId);
        this.userId = requireNonNull(userId);
    }

    public UserId getUserId() {
        return userId;
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
@ParametersAreNonnullByDefault
package org.sonar.server.permission;

import javax.annotation.ParametersAreNonnullByDefault;
{
    "paging": {
        "pageIndex": 1,
        "pageSize": 20,
        "total": 3
    },
}

```

```

"groups": [
  {
    "name": "Anyone",
    "permissions": [
      "scan"
    ]
  },
  {
    "name": "group-1-name",
    "description": "group-1-description",
    "permissions": [
      "scan"
    ]
  },
  {
    "name": "group-2-name",
    "description": "group-2-description",
    "permissions": [
      "scan"
    ]
  }
]
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import PropTypes from 'prop-types';
import Defaults from './Defaults';

export default class TemplateDetails extends React.PureComponent {
  static propTypes = {

```

```

organization: PropTypes.object,
template: PropTypes.object.isRequired
};

render() {
  const { template } = this.props;

  return (
    <div className="big-spacer-bottom">
      {template.defaultFor.length > 0 && (
        <div className="spacer-top js-defaults">
          <Defaults permissionTemplate={ template } organization={ this.props.organization } />
        </div>
      )}

      {!!template.description && (
        <div className="spacer-top js-description">{template.description}</div>
      )}

      {!!template.projectKeyPattern && (
        <div className="spacer-top js-project-key-pattern">
          Project Key Pattern: <code>{template.projectKeyPattern}</code>
        </div>
      )}
    </div>
  );
}

[
  {
    "key": "foo",
    "value": "1",
    "values": [
      "1"
    ]
  },
  {
    "key": "foo.1.key",
    "value": "key1"
  }
]
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public

```

* License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.server.permission;
```

```
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.utils.System2;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.OrganizationPermission;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.BadRequestException;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.QUALITY_GATE_ADMIN;
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_GATES;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonar.server.permission.PermissionChange.Operation.ADD;
import static org.sonar.server.permission.PermissionChange.Operation.REMOVE;

public class UserPermissionChangerTest {
    @Rule
    public DbTester db = DbTester.create(System2.INSTANCE);

    @Rule
    public ExpectedException expectedException = ExpectedException.none();
```

```

private UserPermissionChanger underTest = new UserPermissionChanger(db.getDbClient());
private OrganizationDto org1;
private OrganizationDto org2;
private UserDto user1;
private UserDto user2;
private ComponentDto privateProject;
private ComponentDto publicProject;

@Before
public void setUp() throws Exception {
    org1 = db.organizations().insert();
    org2 = db.organizations().insert();
    user1 = db.users().insertUser();
    user2 = db.users().insertUser();
    privateProject = db.components().insertPrivateProject(org1);
    publicProject = db.components().insertPublicProject(org1);
}

@Test
public void apply_adds_any_organization_permission_to_user() {
    OrganizationPermission.all()
        .forEach(perm -> {
            UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), perm.getKey(), null,
                UserId.from(user1));

            apply(change);

            assertThat(db.users().selectPermissionsOfUser(user1, org1)).contains(perm);
        });
}

@Test
public void apply_removes_any_organization_permission_to_user() {
    // give ADMIN perm to user2 so that user1 is not the only one with this permission and it can be removed from
    user1
    db.users().insertPermissionOnUser(org1, user2, OrganizationPermission.ADMINISTER);
    OrganizationPermission.all()
        .forEach(perm -> db.users().insertPermissionOnUser(org1, user1, perm));
    assertThat(db.users().selectPermissionsOfUser(user1, org1)).containsOnly(OrganizationPermission.values());

    OrganizationPermission.all()
        .forEach(perm -> {
            UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), perm.getKey(), null,
                UserId.from(user1));

            apply(change);

```

```

        assertThat(db.users().selectPermissionsOfUser(user1, org1)).doesNotContain(perm);
    });
}

@Test
public void apply_has_no_effect_when_adding_permission_USER_on_a_public_project() {
    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), USER, new
ProjectId(publicProject), UserId.from(user1));

    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, publicProject)).doesNotContain(USER);
}

@Test
public void apply_has_no_effect_when_adding_permission_CODEVIEWER_on_a_public_project() {
    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), CODEVIEWER, new
ProjectId(publicProject), UserId.from(user1));

    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, publicProject)).doesNotContain(CODEVIEWER);
}

@Test
public void apply_adds_permission_ADMIN_on_a_public_project() {
    applyAddsPermissionOnAPublicProject(ADMIN);
}

@Test
public void apply_adds_permission_ISSUE_ADMIN_on_a_public_project() {
    applyAddsPermissionOnAPublicProject(ISSUE_ADMIN);
}

@Test
public void apply_adds_permission_SCAN_EXECUTION_on_a_public_project() {
    applyAddsPermissionOnAPublicProject(SCAN_EXECUTION);
}

private void applyAddsPermissionOnAPublicProject(String permission) {
    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), permission, new
ProjectId(publicProject), UserId.from(user1));

    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, publicProject)).containsOnly(permission);
}

```

```

@Test
public void apply_fails_with_BadRequestException_when_removing_permission_USER_from_a_public_project()
{
    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), USER, new
ProjectId(publicProject), UserId.from(user1));

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission user can't be removed from a public component");

    apply(change);
}

```

```

@Test
public void
apply_fails_with_BadRequestException_when_removing_permission_CODEVIEWER_from_a_public_project() {
    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), CODEVIEWER, new
ProjectId(publicProject), UserId.from(user1));

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Permission codeviewer can't be removed from a public component");

    apply(change);
}

```

```

@Test
public void apply_removes_permission_ADMIN_from_a_public_project() {
    applyRemovesPermissionFromPublicProject(ADMIN);
}

```

```

@Test
public void apply_removes_permission_ISSUE_ADMIN_from_a_public_project() {
    applyRemovesPermissionFromPublicProject(ISSUE_ADMIN);
}

```

```

@Test
public void apply_removes_permission_SCAN_EXECUTION_from_a_public_project() {
    applyRemovesPermissionFromPublicProject(SCAN_EXECUTION);
}

```

```

private void applyRemovesPermissionFromPublicProject(String permission) {
    db.users().insertProjectPermissionOnUser(user1, permission, publicProject);
    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), permission, new
ProjectId(publicProject), UserId.from(user1));

    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, publicProject)).isEmpty();
}

```



```

@Test
public void apply_adds_any_permission_to_a_private_project() {
    ProjectPermissions.ALL
        .forEach(permission -> {
            UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), permission, new
ProjectId(privateProject), UserId.from(user1));

            apply(change);

            assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).contains(permission);
        });
}

@Test
public void apply_removes_any_permission_from_a_private_project() {
    ProjectPermissions.ALL
        .forEach(permission -> db.users().insertProjectPermissionOnUser(user1, permission, privateProject));

    ProjectPermissions.ALL
        .forEach(permission -> {
            UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), permission, new
ProjectId(privateProject), UserId.from(user1));

            apply(change);

            assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).doesNotContain(permission);
        });
}

@Test
public void add_global_permission_to_user() {
    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), SCAN_EXECUTION, null,
UserId.from(user1));

    apply(change);

    assertThat(db.users().selectPermissionsOfUser(user1, org1)).containsOnly(SCAN);
    assertThat(db.users().selectPermissionsOfUser(user1, org2)).isEmpty();
    assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).isEmpty();
    assertThat(db.users().selectPermissionsOfUser(user2, org1)).isEmpty();
    assertThat(db.users().selectProjectPermissionsOfUser(user2, privateProject)).isEmpty();
}

@Test
public void add_project_permission_to_user() {
    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), ISSUE_ADMIN, new
ProjectId(privateProject), UserId.from(user1));

```

```

apply(change);

assertThat(db.users().selectPermissionsOfUser(user1, org1)).isEmpty();
assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).contains(ISSUE_ADMIN);
assertThat(db.users().selectPermissionsOfUser(user2, org1)).isEmpty();
assertThat(db.users().selectProjectPermissionsOfUser(user2, privateProject)).isEmpty();
}

@Test
public void do_nothing_when_adding_global_permission_that_already_exists() {
    db.users().insertPermissionOnUser(org1, user1, ADMINISTER_QUALITY_GATES);

    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(),
QUALITY_GATE_ADMIN, null, UserId.from(user1));
    apply(change);

    assertThat(db.users().selectPermissionsOfUser(user1, org1)).containsOnly(ADMINISTER_QUALITY_GATES);
}

@Test
public void fail_to_add_global_permission_on_project() {
    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Invalid project permission 'gateadmin'. Valid values are [admin, codeviewer,
issueadmin, scan, user]");

    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(),
QUALITY_GATE_ADMIN, new ProjectId(privateProject), UserId.from(user1));
    apply(change);
}

@Test
public void fail_to_add_project_permission_on_organization() {
    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Invalid global permission 'issueadmin'. Valid values are [admin, profileadmin,
gateadmin, scan, provisioning]");

    UserPermissionChange change = new UserPermissionChange(ADD, org1.getUuid(), ISSUE_ADMIN, null,
UserId.from(user1));
    apply(change);
}

@Test
public void remove_global_permission_from_user() {
    db.users().insertPermissionOnUser(org1, user1, QUALITY_GATE_ADMIN);
    db.users().insertPermissionOnUser(org1, user1, SCAN_EXECUTION);
    db.users().insertPermissionOnUser(org2, user1, QUALITY_GATE_ADMIN);
    db.users().insertPermissionOnUser(org1, user2, QUALITY_GATE_ADMIN);
    db.users().insertProjectPermissionOnUser(user1, ISSUE_ADMIN, privateProject);
}

```

```

    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(),
QUALITY_GATE_ADMIN, null, UserId.from(user1));
    apply(change);

    assertThat(db.users().selectPermissionsOfUser(user1, org1)).containsOnly(SCAN);
    assertThat(db.users().selectPermissionsOfUser(user1, org2)).containsOnly(ADMINISTER_QUALITY_GATES);
    assertThat(db.users().selectPermissionsOfUser(user2, org1)).containsOnly(ADMINISTER_QUALITY_GATES);
    assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).containsOnly(ISSUE_ADMIN);
}

@Test
public void remove_project_permission_from_user() {
    ComponentDto project2 = db.components().insertPrivateProject(org1);
    db.users().insertPermissionOnUser(user1, ADMINISTER_QUALITY_GATES);
    db.users().insertProjectPermissionOnUser(user1, ISSUE_ADMIN, privateProject);
    db.users().insertProjectPermissionOnUser(user1, USER, privateProject);
    db.users().insertProjectPermissionOnUser(user2, ISSUE_ADMIN, privateProject);
    db.users().insertProjectPermissionOnUser(user1, ISSUE_ADMIN, project2);

    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), ISSUE_ADMIN, new
ProjectId(privateProject), UserId.from(user1));
    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).containsOnly(USER);
    assertThat(db.users().selectProjectPermissionsOfUser(user2, privateProject)).containsOnly(ISSUE_ADMIN);
    assertThat(db.users().selectProjectPermissionsOfUser(user1, project2)).containsOnly(ISSUE_ADMIN);
}

@Test
public void do_not_fail_if_removing_a_global_permission_that_does_not_exist() {
    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(),
QUALITY_GATE_ADMIN, null, UserId.from(user1));
    apply(change);

    assertThat(db.users().selectPermissionsOfUser(user1, org1)).isEmpty();
}

@Test
public void do_not_fail_if_removing_a_project_permission_that_does_not_exist() {
    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), ISSUE_ADMIN, new
ProjectId(privateProject), UserId.from(user1));
    apply(change);

    assertThat(db.users().selectProjectPermissionsOfUser(user1, privateProject)).isEmpty();
}

@Test

```

```

public void fail_to_remove_admin_global_permission_if_no_more_admins() {
    db.users().insertPermissionOnUser(org1, user1, SYSTEM_ADMIN);

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Last user with permission 'admin'. Permission cannot be removed.");

    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(), SYSTEM_ADMIN,
null, UserId.from(user1));
    underTest.apply(db.getSession(), change);
}

@Test
public void remove_admin_user_if_still_other_admins() {
    db.users().insertPermissionOnUser(org1, user1, ADMINISTER);
    GroupDto admins = db.users().insertGroup(org1, "admins");
    db.users().insertMember(admins, user2);
    db.users().insertPermissionOnGroup(admins, ADMINISTER);

    UserPermissionChange change = new UserPermissionChange(REMOVE, org1.getUuid(),
ADMINISTER.getKey(), null, UserId.from(user1));
    underTest.apply(db.getSession(), change);

    assertThat(db.users().selectPermissionsOfUser(user1, org1)).isEmpty();
}

private void apply(UserPermissionChange change) {
    underTest.apply(db.getSession(), change);
    db.commit();
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

```

*/
package org.sonar.server.permission.ws;

import java.util.Optional;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.permission.PermissionChange;
import org.sonar.server.permission.PermissionUpdater;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.permission.UserId;
import org.sonar.server.permission.UserPermissionChange;
import org.sonar.server.user.UserSession;

import static com.google.common.base.Preconditions.checkNotNull;
import static java.util.Collections.singletonList;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createUserLoginParameter;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_USER_LOGIN;

public class AddUserAction implements PermissionsWsAction {

    public static final String ACTION = "add_user";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionUpdater permissionUpdater;
    private final PermissionWsSupport support;

    public AddUserAction(DbClient dbClient, UserSession userSession, PermissionUpdater permissionUpdater,
PermissionWsSupport support) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.permissionUpdater = permissionUpdater;
        this.support = support;
    }
}

```

```

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction(ACTION)
        .setDescription("Add permission to a user.<br /> " +
            "This service defaults to global permissions, but can be limited to project permissions by providing project id or
project key.<br /> " +
            "Requires one of the following permissions:" +
            "<ul>" +
            "<li>'Administer System'</li>" +
            "<li>'Administer' rights on the specified project</li>" +
            "</ul>")
        .setSince("5.2")
        .setPost(true)
        .setHandler(this);

    createPermissionParameter(action);
    createUserLoginParameter(action);
    createProjectParameters(action);
    createOrganizationParameter(action)
        .setSince("6.2")
        .setDescription("Key of organization, cannot be used at the same time with %s and %s",
PARAM_PROJECT_ID, PARAM_PROJECT_KEY);
}

```

```

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        UserId user = support.findUser(dbSession, request.mandatoryParam(PARAM_USER_LOGIN));
        Optional<ComponentDto> project = support.findProject(dbSession, request);
        String organizationKey = request.param(PARAM_ORGANIZATION);
        checkArgument(!project.isPresent() || organizationKey == null, "Organization must not be set when project is
set.");
        OrganizationDto org = project
            .map(dto -> dbClient.organizationDao().selectByUuid(dbSession, dto.getOrganizationUuid()))
            .orElseGet(() -> Optional.ofNullable(support.findOrganization(dbSession, organizationKey)))
            .orElseThrow(() -> new NotFoundException(String.format("Organization with key '%s' not found",
organizationKey)));
        support.checkMembership(dbSession, org, user);

        Optional<ProjectId> projectId = project.map(ProjectId::new);
        checkProjectAdmin(userSession, org.getUuid(), projectId);

        PermissionChange change = new UserPermissionChange(
            PermissionChange.Operation.ADD,
            org.getUuid(),
            request.mandatoryParam(PARAM_PERMISSION),
            projectId.orElse(null),

```

```
        user);
    permissionUpdater.apply(dbSession, singletonList(change));
}
response.noContent();
}
}
[
{
    "key": "secret.secured",
    "value": "password"
},
{
    "key": "plugin.licenseHash.secured",
    "value": "987654321"
},
{
    "key": "foo",
    "value": "one"
},
{
    "key": "plugin.license.secured",
    "value": "ABCD"
}
]
```

Copyright 2008, Google Inc.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- * Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,

DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Code generated by the Protocol Buffer compiler is owned by the owner of the input file used when generating it. This code is not standalone and requires a support library to be linked with it. This support library is itself covered by the above license.

```
{
  "paging": {
    "pageIndex": 1,
    "pageSize": 20,
    "total": 2
  },
  "users": [
    {
      "login": "admin",
      "name": "Administrator",
      "email": "admin@admin.com",
      "avatar": "64e1b8d34f425d19e1ee2ea7236d3028",
      "permissions": ["admin", "gateadmin", "profileadmin"]
    },
    {
      "login": "george.orwell",
      "name": "George Orwell",
      "email": "george.orwell@1984.net",
      "avatar": "583af86a274c1027ef078cada831babf",
      "permissions": ["scan"]
    }
  ]
}
/*
```

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License


```

* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

import java.util.Optional;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.permission.ws.BasePermissionWsTest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.mockito.Mockito.mock;
import static org.mockito.Mockito.when;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class RemoveProjectCreatorFromTemplateActionTest extends
BasePermissionWsTest<RemoveProjectCreatorFromTemplateAction> {

    private System2 system = mock(System2.class);
    private PermissionTemplateDto template;

    @Override
    protected RemoveProjectCreatorFromTemplateAction buildWsAction() {
        return new RemoveProjectCreatorFromTemplateAction(db.getClient(), newPermissionWsSupport(),
userSession, system);
    }

    @Before
    public void setUp() {
        loginAsAdmin(db.getDefaultOrganization());
        when(system.now()).thenReturn(2_000_000_000L);
        template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
    }

    @Test
    public void update_template_permission() {
        PermissionTemplateCharacteristicDto characteristic =
db.getClient().permissionTemplateCharacteristicDao().insert(db.getSession(),

```

```

new PermissionTemplateCharacteristicDto()
    .setTemplateId(template.getId())
    .setPermission(UserRole.USER)
    .setWithProjectCreator(false)
    .setCreatedAt(1_000_000_000L)
    .setUpdatedAt(1_000_000_000L);
db.commit();
when(system.now()).thenReturn(3_000_000_000L);

newRequest()
    .setParam(PARAM_PERMISSION, UserRole.USER)
    .setParam(PARAM_TEMPLATE_NAME, template.getName())
    .execute();

assertWithoutProjectCreatorFor(UserRole.USER);
PermissionTemplateCharacteristicDto reloaded = reload(characteristic);
assertThat(reloaded.getCreatedAt()).isEqualTo(1_000_000_000L);
assertThat(reloaded.getUpdatedAt()).isEqualTo(3_000_000_000L);
}

@Test
public void do_not_fail_when_no_template_permission() {
    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();

    assertNoTemplatePermissionFor(UserRole.ADMIN);
}

@Test
public void fail_when_template_does_not_exist() {
    expectedException.expect(NotFoundException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, "42")
        .execute();
}

@Test
public void fail_if_permission_is_not_a_project_permission() {
    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, GlobalPermissions.QUALITY_GATE_ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();
}

```

```

}

@Test
public void fail_if_not_authenticated() {
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();
}

@Test
public void fail_if_insufficient_privileges() {
    userSession.logIn();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, UserRole.ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .execute();
}

private void assertWithoutProjectCreatorFor(String permission) {
    Optional<PermissionTemplateCharacteristicDto> templatePermission =
db.getClient().permissionTemplateCharacteristicDao().selectByPermissionAndTemplateId(db.getSession(),
    permission, template.getId());
    assertThat(templatePermission).isPresent();
    assertThat(templatePermission.get().getWithProjectCreator()).isFalse();
}

private void assertNoTemplatePermissionFor(String permission) {
    Optional<PermissionTemplateCharacteristicDto> templatePermission =
db.getClient().permissionTemplateCharacteristicDao().selectByPermissionAndTemplateId(db.getSession(),
    permission, template.getId());
    assertThat(templatePermission).isNotPresent();
}

private PermissionTemplateCharacteristicDto reload(PermissionTemplateCharacteristicDto characteristic) {
    return
db.getClient().permissionTemplateCharacteristicDao().selectByPermissionAndTemplateId(db.getSession(),
characteristic.getPermission(), characteristic.getTemplateId())
        .get();
}
}

```

```

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import java.util.List;
import java.util.Map;
import java.util.Set;
import javax.annotation.Nullable;
import org.apache.ibatis.annotations.Param;
import org.apache.ibatis.session.ResultHandler;
import org.apache.ibatis.session.RowBounds;

public interface GroupPermissionMapper {

    List<String> selectGroupNamesByQuery(@Param("query") PermissionQuery query, RowBounds rowBounds);

    int countGroupsByQuery(@Param("query") PermissionQuery query);

    List<GroupPermissionDto> selectByGroupIds(@Param("organizationUuid") String organizationUuid,
        @Param("groupIds") List<Integer> groupIds, @Nullable @Param("projectId") Long projectId);

    void groupsCountByProjectIdAndPermission(Map<String, Object> parameters, ResultHandler resultHandler);

    void insert(GroupPermissionDto dto);

    void delete(@Param("permission") String permission, @Param("organizationUuid") String organizationUuid,
        @Nullable @Param("groupId") Integer groupId, @Nullable @Param("rootComponentId") Long
        rootComponentId);

    List<String> selectGlobalPermissionsOfGroup(@Param("organizationUuid") String organizationUuid,
        @Nullable @Param("groupId") Integer groupId);

```

```

List<String> selectProjectPermissionsOfGroup(@Param("organizationUuid") String organizationUuid,
    @Nullable @Param("groupId") Integer groupId, @Param("projectId") long projectId);

void selectAllPermissionsByGroupId(@Param("organizationUuid") String organizationUuid,
    @Param("groupId") Integer groupId, ResultHandler resultHandler);

/**
 * Lists id of groups with at least one permission on the specified root component but which do not have the
 * specified
 * permission, <strong>excluding group "AnyOne"</strong> (which implies the returned { @code Set} can't contain
 * { @code null}).
 */
Set<Integer> selectGroupIdsWithPermissionOnProjectBut(@Param("projectId") long projectId, @Param("role")
String permission);

void deleteByOrganization(@Param("organizationUuid") String organizationUuid);

void deleteByRootComponentId(@Param("rootComponentId") long componentId);

int deleteByRootComponentIdAndGroupId(@Param("rootComponentId") long rootComponentId, @Nullable
@Param("groupId") Integer groupId);

int deleteByRootComponentIdAndPermission(@Param("rootComponentId") long rootComponentId,
@Param("permission") String permission);
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission;

import java.util.ArrayList;

```

```

import java.util.Collection;
import java.util.List;
import java.util.Optional;
import org.sonar.db.DbSession;
import org.sonar.server.es.ProjectIndexer;
import org.sonar.server.es.ProjectIndexers;

/**
 * Add or remove global/project permissions to a group. This class
 * does not verify that caller has administration right on the related
 * organization or project.
 */
public class PermissionUpdater {

    private final ProjectIndexers projectIndexers;
    private final UserPermissionChanger userPermissionChanger;
    private final GroupPermissionChanger groupPermissionChanger;

    public PermissionUpdater(ProjectIndexers projectIndexers,
        UserPermissionChanger userPermissionChanger, GroupPermissionChanger groupPermissionChanger) {
        this.projectIndexers = projectIndexers;
        this.userPermissionChanger = userPermissionChanger;
        this.groupPermissionChanger = groupPermissionChanger;
    }

    public void apply(DbSession dbSession, Collection<PermissionChange> changes) {
        List<String> projectOrViewUuids = new ArrayList<>();
        for (PermissionChange change : changes) {
            boolean changed = doApply(dbSession, change);
            Optional<ProjectId> projectId = change.getProjectId();
            if (changed && projectId.isPresent()) {
                projectOrViewUuids.add(projectId.get().getUuid());
            }
        }
        projectIndexers.commitAndIndexByProjectUuids(dbSession, projectOrViewUuids,
ProjectIndexer.Cause.PERMISSION_CHANGE);
    }

    private boolean doApply(DbSession dbSession, PermissionChange change) {
        if (change instanceof UserPermissionChange) {
            return userPermissionChanger.apply(dbSession, (UserPermissionChange) change);
        }
        if (change instanceof GroupPermissionChange) {
            return groupPermissionChanger.apply(dbSession, (GroupPermissionChange) change);
        }
        throw new UnsupportedOperationException("Unsupported permission change: " + change.getClass());
    }
}

```

```

}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import PropTypes from 'prop-types';
import { sortBy } from 'lodash';
import { translate, translateWithParameters } from '../helpers/110n';
import { PermissionTemplateType } from '../propTypes';

export default class Defaults extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    permissionTemplate: PermissionTemplateType.isRequired
  };

  render() {
    const qualifiersToDisplay =
      this.props.organization && !this.props.organization.isDefault
        ? ['TRK']
        : this.props.permissionTemplate.defaultFor;

    const qualifiers = sortBy(qualifiersToDisplay)
      .map(qualifier => translate('qualifiers', qualifier))
      .join(', ');

    return (
      <div>
        <span className="badge spacer-right">
          {translateWithParameters('permission_template.default_for', qualifiers)}
        </span>
      </div>
    );
  }
}

```

```

    );
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
@ParametersAreNonnullByDefault
package org.sonar.server.permission.ws;

import javax.annotation.ParametersAreNonnullByDefault;
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import com.google.common.collect.FluentIterable;

```



```

import com.google.common.collect.Iterables;
import com.google.common.collect.Ordering;
import com.google.common.collect.Table;
import java.util.List;
import java.util.Set;
import org.sonar.api.utils.Paging;
import org.sonar.db.component.ComponentDto;

import static com.google.common.base.MoreObjects.firstNonNull;
import static com.google.common.base.Preconditions.checkState;
import static com.google.common.collect.ImmutableList.copyOf;
import static com.google.common.collect.ImmutableTable.copyOf;

class SearchProjectPermissionsData {
    private final List<ComponentDto> rootComponents;
    private final Paging paging;
    private final Table<Long, String, Integer> userCountByProjectIdAndPermission;
    private final Table<Long, String, Integer> groupCountByProjectIdAndPermission;

    private SearchProjectPermissionsData(Builder builder) {
        this.rootComponents = copyOf(builder.projects);
        this.paging = builder.paging;
        this.userCountByProjectIdAndPermission = copyOf(builder.userCountByProjectIdAndPermission);
        this.groupCountByProjectIdAndPermission = copyOf(builder.groupCountByProjectIdAndPermission);
    }

    static Builder newBuilder() {
        return new Builder();
    }

    List<ComponentDto> rootComponents() {
        return rootComponents;
    }

    Paging paging() {
        return paging;
    }

    int userCount(long rootComponentId, String permission) {
        return firstNonNull(userCountByProjectIdAndPermission.get(rootComponentId, permission), 0);
    }

    int groupCount(long rootComponentId, String permission) {
        return firstNonNull(groupCountByProjectIdAndPermission.get(rootComponentId, permission), 0);
    }

    Set<String> permissions(long rootComponentId) {
        return FluentIterable.from(

```

```

        Iterables.concat(
            userCountByProjectIdAndPermission.row(rootComponentId).keySet(),
            groupCountByProjectIdAndPermission.row(rootComponentId).keySet()))
        .toSortedSet(Ordering.natural());
    }

    static class Builder {
        private List<ComponentDto> projects;
        private Paging paging;
        private Table<Long, String, Integer> userCountByProjectIdAndPermission;
        private Table<Long, String, Integer> groupCountByProjectIdAndPermission;

        private Builder() {
            // prevents instantiation outside main class
        }

        SearchProjectPermissionsData build() {
            checkState(projects != null);
            checkState(userCountByProjectIdAndPermission != null);
            checkState(groupCountByProjectIdAndPermission != null);

            return new SearchProjectPermissionsData(this);
        }

        Builder rootComponents(List<ComponentDto> projects) {
            this.projects = projects;
            return this;
        }

        Builder paging(Paging paging) {
            this.paging = paging;
            return this;
        }

        Builder userCountByProjectIdAndPermission(Table<Long, String, Integer>
userCountByProjectIdAndPermission) {
            this.userCountByProjectIdAndPermission = userCountByProjectIdAndPermission;
            return this;
        }

        Builder groupCountByProjectIdAndPermission(Table<Long, String, Integer>
groupCountByProjectIdAndPermission) {
            this.groupCountByProjectIdAndPermission = groupCountByProjectIdAndPermission;
            return this;
        }
    }
}

```

(BSD License: <http://www.opensource.org/licenses/bsd-license>)

Copyright (c) 2011, Joe Walnes, Aslak Hellesøy and contributors
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the Webbit nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

/*

- * SonarQube
- * Copyright (C) 2009-2018 SonarSource SA
- * [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)
- *
- * This program is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version.
- *
- * This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */

```
package org.sonar.server.permission.ws;
```

```
import com.google.common.base.Optional;
import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
```

```
import static org.sonar.server.ws.WsUtils.checkRequest;
```

```
/**
```

```
* Reference to a project <b>as defined by web service callers</b>. It allows to reference a project  

* by its (functional) key or by its (technical) id. It's then converted to { @link org.sonar.server.permission.ProjectId}.  

*  

* <p>Factory methods guarantee that the project id and project key are not provided at the same time.</p>  

*/
```

```
public class ProjectWsRef {
```

```
  private static final String MSG_ID_OR_KEY_MUST_BE_PROVIDED = "Project id or project key can be  

  provided, not both.";
  private final String uuid;
  private final String key;
```

```
  private ProjectWsRef(@Nullable String uuid, @Nullable String key) {
    this.uuid = uuid;
    this.key = key;
    checkRequest(this.uuid != null ^ this.key != null, MSG_ID_OR_KEY_MUST_BE_PROVIDED);
  }
```

```
  public static Optional<ProjectWsRef> newOptionalWsProjectRef(@Nullable String uuid, @Nullable String key) {
    if (uuid == null && key == null) {
      return Optional.absent();
    }
```

```
    return Optional.of(new ProjectWsRef(uuid, key));
  }
```

```
  public static ProjectWsRef newWsProjectRef(@Nullable String uuid, @Nullable String key) {
    return new ProjectWsRef(uuid, key);
  }
```

```
  @CheckForNull
  public String uuid() {
```

```

    return this.uuid;
}

@CheckForNull
public String key() {
    return this.key;
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import com.google.common.annotations.VisibleForTesting;

/**
 * Count the number of users or groups for a given project and permission
 */
public class CountPerProjectPermission {
    private long componentId;
    private String permission;
    private int count;

    public CountPerProjectPermission() {
        // used by MyBatis
    }

    @VisibleForTesting
    CountPerProjectPermission(long componentId, String permission, int count) {
        this.componentId = componentId;
        this.permission = permission;
        this.count = count;
    }
}

```

```

}

public long getComponentId() {
    return componentId;
}

public String getPermission() {
    return permission;
}

public int getCount() {
    return count;
}
}
}
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN" "mybatis-3-mapper.dtd">

<mapper namespace="org.sonar.db.permission.template.PermissionTemplateMapper">

    <insert id="insert" parameterType="PermissionTemplate" keyColumn="id" useGeneratedKeys="true"
    keyProperty="id">
        INSERT INTO permission_templates (organization_uuid, name, kee, description, key_pattern, created_at,
updated_at)
        VALUES (
            #{organizationUuid,jdbcType=VARCHAR},
            #{name,jdbcType=VARCHAR},
            #{kee,jdbcType=VARCHAR},
            #{description,jdbcType=VARCHAR},
            #{keyPattern,jdbcType=VARCHAR},
            #{createdAt},
            #{updatedAt})
    </insert>

    <update id="update" parameterType="PermissionTemplate">
        UPDATE permission_templates
        SET name = #{name}, description = #{description}, key_pattern = #{keyPattern}, updated_at = #{updatedAt}
        WHERE id = #{id}
    </update>

    <delete id="deleteById" parameterType="long">
        DELETE FROM permission_templates
        WHERE id = #{templateId}
    </delete>

    <delete id="deleteByIds" parameterType="long">
        delete from
        permission_templates
        where

```

```

    id in <foreach collection="templateIds" open="(" close=")" item="templateId" separator=",">
      #{templateId,jdbcType=BIGINT}
    </foreach>
  </delete>

<delete id="deleteUserPermissionsByTemplateId" parameterType="long">
  delete from
    perm_templates_users
  where
    template_id = #{templateId,jdbcType=BIGINT}
</delete>

<delete id="deleteUserPermissionsByTemplateIds">
  delete from
    perm_templates_users
  where
    template_id in <foreach collection="templateIds" open="(" close=")" item="templateId" separator=",">
      #{templateId,jdbcType=BIGINT}
    </foreach>
</delete>

<delete id="deleteUserPermission" parameterType="PermissionTemplateUser">
  DELETE FROM perm_templates_users
  WHERE template_id = #{templateId}
  AND user_id = #{userId}
  AND permission_reference = #{permission}
</delete>

<delete id="deleteUserPermissionsByOrganization" parameterType="map">
  delete from perm_templates_users
  where
    user_id = #{userId,jdbcType=INTEGER}
    and template_id in (select id from permission_templates where
organization_uuid=#{organizationUuid,jdbcType=VARCHAR})
</delete>

<delete id="deleteUserPermissionsByUserId" parameterType="integer">
  delete from perm_templates_users
  where
    user_id = #{userId,jdbcType=INTEGER}
</delete>

<delete id="deleteGroupPermissionsByTemplateId" parameterType="long">
  delete from
    perm_templates_groups
  where
    template_id = #{templateId,jdbcType=BIGINT}
</delete>

```

```

<delete id="deleteGroupPermissionsByTemplateIds">
  delete from
    perm_templates_groups
  where
    template_id in <foreach collection="templateIds" open="(" close=")" item="templateId" separator=",">
      #{templateId,jdbcType=BIGINT}
    </foreach>
</delete>

```

```

<delete id="deleteGroupPermission" parameterType="PermissionTemplateGroup">
  DELETE FROM perm_templates_groups
  WHERE template_id = #{templateId}
  AND permission_reference = #{permission}
  AND
  <choose>
    <when test="groupId != null">
      group_id = #{groupId}
    </when>
    <otherwise>
      group_id IS NULL
    </otherwise>
  </choose>
</delete>

```

```

<insert id="insertUserPermission" parameterType="PermissionTemplateUser">
  INSERT INTO perm_templates_users (template_id, user_id, permission_reference, created_at, updated_at)
  VALUES (#{templateId}, #{userId}, #{permission}, #{createdAt}, #{updatedAt})
</insert>

```

```

<insert id="insertGroupPermission" parameterType="PermissionTemplateGroup">
  INSERT INTO perm_templates_groups (template_id, group_id, permission_reference, created_at, updated_at)
  VALUES (
    #{templateId,jdbcType=BIGINT},
    #{groupId,jdbcType=INTEGER},
    #{permission,jdbcType=VARCHAR},
    #{createdAt,jdbcType=TIMESTAMP},
    #{updatedAt,jdbcType=TIMESTAMP}
  )
</insert>

```

```

<delete id="deleteByGroupId" parameterType="int">
  delete from perm_templates_groups
  where group_id = #{groupId,jdbcType=INTEGER}
</delete>

```

```

<select id="selectUserLoginsByQueryAndTemplate" parameterType="map" resultType="string">
  SELECT u.login FROM

```



```

        (SELECT DISTINCT u.login AS login, u.name AS name
        <include refid="userLoginsByQueryAndTemplate"/>
        ) u
    ORDER BY u.name
</select>

<select id="countUserLoginsByQueryAndTemplate" parameterType="map" resultType="int">
    SELECT count(1)
    FROM (
        SELECT DISTINCT u.login AS login, u.name AS name
        <include refid="userLoginsByQueryAndTemplate"/>) u
</select>

<sql id="userLoginsByQueryAndTemplate">
    FROM users u
    LEFT JOIN perm_templates_users ptu ON ptu.user_id=u.id AND ptu.template_id=#{templateId}
    INNER JOIN organization_members om ON u.id=om.user_id AND
om.organization_uuid=#{query.organizationUuid}
    <where>
        u.active = ${_true}
        <if test="query.getSearchQueryToSql() != null">
            AND lower(u.name) like #{query.searchQueryToSqlLowercase} ESCAPE '/'
        </if>
        <if test="query.withAtLeastOnePermission()">
            and ptu.permission_reference is not null
            <if test="query.getPermission() != null">
                and ptu.permission_reference=#{query.permission}
            </if>
        </if>
    </where>
</sql>

<select id="selectGroupNamesByQueryAndTemplate" parameterType="map" resultType="string">
    SELECT DISTINCT groups.name, LOWER(groups.name), groups.group_id
    <include refid="groupNamesByQueryAndTemplate" />
    ORDER BY LOWER(groups.name), groups.name, groups.group_id
</select>

<select id="countGroupNamesByQueryAndTemplate" parameterType="map" resultType="int">
    SELECT COUNT(1)
    FROM (
        SELECT DISTINCT group_id
        <include refid="groupNamesByQueryAndTemplate" />) g
</select>

<sql id="groupNamesByQueryAndTemplate">
    FROM
    (SELECT

```

```

g.id AS group_id,
g.name AS name,
ptg.permission_reference AS permission,
ptg.template_id AS templateId
FROM groups g
LEFT JOIN perm_templates_groups ptg ON
ptg.group_id=g.id
where
g.organization_uuid=#{query.organizationUuid,jdbcType=VARCHAR}
UNION ALL
SELECT
0 AS group_id,
'Anyone' AS name,
ptg.permission_reference AS permission,
ptg.template_id AS templateId
FROM perm_templates_groups ptg
<where>
<if test="query.withAtLeastOnePermission()">
AND ptg.group_id IS NULL
</if>
</where>
) groups
<where>
<if test="query.searchQueryToSql != null">
AND LOWER(groups.name) LIKE #{query.searchQueryToSqlLowercase} ESCAPE '/'
</if>
<if test="query.withAtLeastOnePermission()">
AND groups.permission IS NOT NULL
AND groups.templateId=#{templateId}
<if test="query.permission != null">
AND groups.permission=#{query.permission}
</if>
</if>
</where>
</sql>

<sql id="templateColumns">
id, organization_uuid as organizationUuid, name, kee, description, key_pattern AS keyPattern, created_at AS
createdAt, updated_at AS updatedAt
</sql>

<select id="selectByUuid" parameterType="String" resultType="PermissionTemplate">
SELECT
<include refid="templateColumns"/>
FROM permission_templates
WHERE kee=#{uuid}
</select>

```

```

<select id="selectAll" parameterType="map" resultType="PermissionTemplate">
  select
  <include refid="templateColumns"/>
  from permission_templates
  where
  organization_uuid = #{organizationUuid,jdbcType=VARCHAR}
  <if test="upperCaseNameLikeSql != null">
    and upper(name) like #{upperCaseNameLikeSql} escape '/'
  </if>
  order by upper(name), name
</select>

```

```

<select id="selectByName" parameterType="map" resultType="PermissionTemplate">
  select
  <include refid="templateColumns"/>
  from permission_templates
  where
  organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
  upper(name) = #{name,jdbcType=VARCHAR}
</select>

```

```

<sql id="permissionTemplateUserColumns">
  ptu.id,
  ptu.template_id as templateId,
  ptu.permission_reference AS permission,
  ptu.user_id AS userId,
  u.name AS userName,
  u.login AS userLogin,
  ptu.created_at AS createdAt,
  ptu.updated_at AS updatedAt
</sql>

```

```

<select id="selectUserPermissionsByTemplateIdAndUserLogins" parameterType="Long"
resultType="PermissionTemplateUser">
  SELECT
  <include refid="permissionTemplateUserColumns"/>
  FROM perm_templates_users ptu
  INNER JOIN users u ON u.id = ptu.user_id AND u.active = ${_true}
  <where>
  AND ptu.template_id = #{templateId}
  <if test="!logins.isEmpty()">
    AND u.login IN <foreach collection="logins" open="(" close=")" item="login" separator=",">
      #{login}
    </foreach>
  </if>
  </where>
</select>

```

```

<select id="selectGroupPermissionsByTemplateIdAndGroupNames" parameterType="Long"
resultType="PermissionTemplateGroup">
  SELECT
    sub.id,
    sub.templateId,
    sub.permission,
    sub.groupId,
    sub.groupName,
    sub.createdAt,
    sub.updatedAt
  FROM (
    SELECT
      ptg.id,
      ptg.template_id as templateId,
      ptg.permission_reference AS permission,
      ptg.group_id AS groupId,
      g.name AS groupName,
      ptg.created_at as createdAt,
      ptg.updated_at as updatedAt
    FROM perm_templates_groups ptg
    INNER JOIN groups g ON
      g.id=ptg.group_id
    UNION ALL
    SELECT
      ptg.id,
      ptg.template_id as templateId,
      ptg.permission_reference AS permission,
      0 AS groupId,
      'Anyone' AS groupName,
      ptg.created_at as createdAt,
      ptg.updated_at as updatedAt
    FROM perm_templates_groups ptg
    WHERE ptg.group_id IS NULL
  ) sub
</where>
sub.templateId=#{templateId}
<if test="!groups.isEmpty()">
  AND sub.groupName IN <foreach collection="groups" open="(" close=")" item="group" separator=",">
    #{group}
  </foreach>
</if>
</where>
</select>

<select id="selectPotentialPermissionsByUserIdAndTemplateId" parameterType="map" resultType="String">
<if test="userId!=null">
  -- from template users
  select ptu.permission_reference as permission_key

```

```

from perm_templates_users ptu
<where>
  and ptu.user_id=#{userId}
  and ptu.template_id=#{templateId}
</where>
UNION
-- from template groups except anyone group
select ptg.permission_reference as permission_key
from perm_templates_groups ptg
inner join groups_users gu on ptg.group_id = gu.group_id
<where>
  and gu.user_id=#{userId}
  and ptg.template_id=#{templateId}
</where>
UNION
-- from template characteristics
select ptc.permission_key as permission_key
from perm_tpl_characteristics ptc
<where>
  and with_project_creator = ${_true}
  and ptc.template_id = #{templateId}
</where>
UNION
</if>
-- from anyone group
select ptg.permission_reference as permission_key
from perm_templates_groups ptg
where ptg.template_id=#{templateId}
and ptg.group_id IS NULL
</select>

<select id="usersCountByTemplateIdAndPermission" parameterType="map"
  resultType="org.sonar.db.permission.template.CountByTemplateAndPermissionDto">
SELECT ptu.template_id as templateId, ptu.permission_reference as permission, count(u.login) as count
FROM users u
INNER JOIN perm_templates_users ptu ON ptu.user_id=u.id
AND ptu.template_id in
<foreach collection="templateIds" open="(" close=")" item="id" separator=",">
  #{id}
</foreach>
<where>
  AND u.active = ${_true}
</where>
GROUP BY ptu.template_id, ptu.permission_reference
</select>

<select id="groupsCountByTemplateIdAndPermission" parameterType="map"
  resultType="org.sonar.db.permission.template.CountByTemplateAndPermissionDto">

```

```

SELECT count(1) as count, permission, templateId
FROM
(SELECT g.name as name, ptg.permission_reference as permission, ptg.template_id as templateId
FROM groups g
INNER JOIN perm_templates_groups ptg ON ptg.group_id=g.id
UNION
-- Add Anyone group permission
SELECT #{anyoneGroup} as name, ptg.permission_reference as permission, ptg.template_id as templateId
FROM perm_templates_groups ptg
<where>
    AND ptg.group_id IS NULL
</where>
) groups
<where>
    AND groups.templateId in
    <foreach collection="templateIds" open="(" close=")" item="id" separator=",">
        #{id}
    </foreach>
</where>
GROUP BY groups.permission, groups.templateId
</select>

```

```

<select id="countGroupsWithPermission" resultType="int" parameterType="map">
select count(1)
from perm_templates_groups ptg
where ptg.template_id = #{templateId}
and ptg.permission_reference = #{permission}
and
<if test="groupId == null">
    ptg.group_id is null
</if>
<if test="groupId != null">
    ptg.group_id = #{groupId}
</if>
</select>

```

```

<select id="selectTemplateIdsByOrganization" resultType="Long">
select
    id
from
    permission_templates
where
    organization_uuid = #{organizationUuid,jdbcType=VARCHAR}
</select>

```

```

<select id="selectAllGroupPermissionTemplatesByGroupId" parameterType="Long"
resultType="PermissionTemplateGroup">
SELECT

```

```

    ptg.id,
    ptg.template_id as templateId,
    ptg.permission_reference AS permission,
    ptg.group_id AS groupId,
    g.name AS groupName,
    ptg.created_at as createdAt,
    ptg.updated_at as updatedAt
FROM perm_templates_groups ptg
INNER JOIN groups g ON g.id=ptg.group_id
<where>
    ptg.group_id=#{groupId,jdbcType=INTEGER}
</where>
</select>
</mapper>
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import java.util.Arrays;
import java.util.stream.Stream;

public enum OrganizationPermission {

    ADMINISTER("admin"),
    ADMINISTER_QUALITY_GATES("gateadmin"),
    ADMINISTER_QUALITY_PROFILES("profileadmin"),
    PROVISION_PROJECTS("provisioning"),
    SCAN("scan");

    private final String key;

```

```

OrganizationPermission(String key) {
    this.key = key;
}

public String getKey() {
    return key;
}

@Override
public String toString() {
    return key;
}

public static OrganizationPermission fromKey(String key) {
    for (OrganizationPermission p : values()) {
        if (p.getKey().equals(key)) {
            return p;
        }
    }
    throw new IllegalArgumentException("Unsupported permission: " + key);
}

public static Stream<OrganizationPermission> all() {
    return Arrays.stream(values());
}
}
{
    "paging": {
        "pageIndex": 1,
        "pageSize": 20,
        "total": 3
    },
    "groups": [
        {
            "name": "Anyone",
            "permissions": [
                "issueadmin",
                "user"
            ]
        },
        {
            "name": "sonar-administrators",
            "description": "System administrators",
            "permissions": [
                "issueadmin"
            ]
        }
    ],
}
{

```



```

    "name": "sonar-users",
    "description": "Any new users created will automatically join this group",
    "permissions": [
        "issueadmin"
    ]
}
]
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws;

```

```

import java.util.Optional;
import javax.annotation.Nullable;
import org.sonar.api.server.ws.Request;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.component.ComponentFinder;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.permission.UserId;
import org.sonar.server.permission.ws.template.WsTemplateRef;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;
import org.sonar.server.usergroups.ws.GroupWsRef;
import org.sonar.server.usergroups.ws.GroupWsSupport;
import org.sonarqube.ws.client.permission.PermissionsWsParameters;

import static com.google.common.base.Preconditions.checkNotNull;

```

```

import static org.sonar.server.ws.WsUtils.checkFound;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;

public class PermissionWsSupport {

    private final DbClient dbClient;
    private final ComponentFinder componentFinder;
    private final GroupWsSupport groupWsSupport;

    public PermissionWsSupport(DbClient dbClient, ComponentFinder componentFinder, GroupWsSupport
groupWsSupport) {
        this.dbClient = dbClient;
        this.componentFinder = componentFinder;
        this.groupWsSupport = groupWsSupport;
    }

    public OrganizationDto findOrganization(DbSession dbSession, @Nullable String organizationKey) {
        return groupWsSupport.findOrganizationByKey(dbSession, organizationKey);
    }

    public Optional<ProjectId> findProjectId(DbSession dbSession, Request request) {
        return findProject(dbSession, request)
            .map(ProjectId::new);
    }

    public Optional<ComponentDto> findProject(DbSession dbSession, Request request) {
        String uuid = request.param(PermissionsWsParameters.PARAM_PROJECT_ID);
        String key = request.param(PermissionsWsParameters.PARAM_PROJECT_KEY);
        if (uuid != null || key != null) {
            ProjectWsRef ref = ProjectWsRef.newWsProjectRef(uuid, key);
            return Optional.of(componentFinder.getRootComponentByUuidOrKey(dbSession, ref.uuid(), ref.key()));
        }
        return Optional.empty();
    }

    public ComponentDto getRootComponentOrModule(DbSession dbSession, ProjectWsRef projectRef) {
        return componentFinder.getRootComponentByUuidOrKey(dbSession, projectRef.uuid(), projectRef.key());
    }

    public GroupIdOrAnyone findGroup(DbSession dbSession, Request request) {
        Integer groupId = request.paramAsInt(PARAM_GROUP_ID);
        String orgKey = request.param(PARAM_ORGANIZATION);
        String groupName = request.param(PARAM_GROUP_NAME);
        GroupWsRef groupRef = GroupWsRef.create(groupId, orgKey, groupName);
        return groupWsSupport.findGroupOrAnyone(dbSession, groupRef);
    }
}

```

```

public UserId findUser(DbSession dbSession, String login) {
    UserDto dto = dbClient.userDao().selectActiveUserByLogin(dbSession, login);
    checkFound(dto, "User with login '%s' is not found", login);
    return new UserId(dto.getId(), dto.getLogin());
}

public PermissionTemplateDto findTemplate(DbSession dbSession, WsTemplateRef ref) {
    if (ref.uuid() != null) {
        return checkFound(
            dbClient.permissionTemplateDao().selectByUuid(dbSession, ref.uuid()),
            "Permission template with id '%s' is not found", ref.uuid());
    } else {
        OrganizationDto org = findOrganization(dbSession, ref.getOrganization());
        return checkFound(
            dbClient.permissionTemplateDao().selectByName(dbSession, org.getUuid(), ref.name()),
            "Permission template with name '%s' is not found (case insensitive) in organization with key '%s'", ref.name(),
            org.getKey());
    }
}

public void checkMembership(DbSession dbSession, OrganizationDto organization, UserId user) {
    checkArgument(dbClient.organizationMemberDao().select(dbSession, organization.getUuid(),
        user.getId()).isPresent(),
        "User '%s' is not member of organization '%s'", user.getLogin(), organization.getKey());
}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

```

```

import com.google.common.collect.Multimap;
import com.google.common.collect.Ordering;
import com.google.common.collect.TreeMultimap;
import java.util.List;
import java.util.stream.Collectors;
import org.sonar.api.security.DefaultGroups;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.utils.Paging;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.permission.template.PermissionTemplateGroupDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Permissions;

import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.core.util.Protobuf.setNullable;
import static org.sonar.db.permission.PermissionQuery.DEFAULT_PAGE_SIZE;
import static org.sonar.db.permission.PermissionQuery.RESULTS_MAX_SIZE;
import static org.sonar.db.permission.PermissionQuery.SEARCH_QUERY_MIN_LENGTH;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class TemplateGroupsAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionWsSupport support;

    public TemplateGroupsAction(DbClient dbClient, UserSession userSession, PermissionWsSupport support) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.support = support;
    }

    @Override
    public void define(WebService.NewController context) {

```

```

WebService.NewAction action = context.createAction("template_groups")
    .setSince("5.2")
    .setInternal(true)
    .setDescription("Lists the groups with their permission as individual groups rather than through user affiliation on
the chosen template.<br />" +
        "This service defaults to all groups, but can be limited to groups with a specific permission by providing the
desired permission.<br>" +
        "Requires the following permission: 'Administer System'.")
    .addPagingParams(DEFAULT_PAGE_SIZE, RESULTS_MAX_SIZE)
    .setResponseExample(getClass().getResource("template_groups-example.json"))
    .setHandler(this);

action.createParam(TEXT_QUERY)
    .setMinimumLength(SEARCH_QUERY_MIN_LENGTH)
    .setDescription("Limit search to group names that contain the supplied string. <br/>" +
        "When this parameter is not set, only group having at least one permission are returned.")
    .setExampleValue("eri");

createProjectPermissionParameter(action, false);
createTemplateParameters(action);
}

```

@Override

```

public void handle(Request wsRequest, Response wsResponse) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        WsTemplateRef templateRef = WsTemplateRef.fromRequest(wsRequest);
        PermissionTemplateDto template = support.findTemplate(dbSession, templateRef);
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        PermissionQuery query = buildPermissionQuery(wsRequest, template);
        int total = dbClient.permissionTemplateDao().countGroupNamesByQueryAndTemplate(dbSession, query,
template.getOrganizationUuid(), template.getId());
        Paging paging =
Paging.forPageIndex(wsRequest.mandatoryParamAsInt(PAGE)).withPageSize(wsRequest.mandatoryParamAsInt(P
AGE_SIZE)).andTotal(total);
        List<GroupDto> groups = findGroups(dbSession, query, template);
        List<PermissionTemplateGroupDto> groupPermissions = findGroupPermissions(dbSession, groups, template);
        Permissions.WsGroupsResponse groupsResponse = buildResponse(groups, groupPermissions, paging);
        writeProtobuf(groupsResponse, wsRequest, wsResponse);
    }
}

```

```

private static PermissionQuery buildPermissionQuery(Request request, PermissionTemplateDto template) {
    String textQuery = request.param(TEXT_QUERY);
    String permission = request.param(PARAM_PERMISSION);
    PermissionQuery.Builder permissionQuery = PermissionQuery.builder()
        .setOrganizationUuid(template.getOrganizationUuid())
        .setPermission(permission != null ? validateProjectPermission(permission) : null)
}

```

```

        .setPageIndex(request.mandatoryParamAsInt(PAGE))
        .setPageSize(request.mandatoryParamAsInt(PAGE_SIZE))
        .setSearchQuery(textQuery);
    if (textQuery == null) {
        permissionQuery.withAtLeastOnePermission();
    }
    return permissionQuery.build();
}

```

```

private static Permissions.WsGroupsResponse buildResponse(List<GroupDto> groups,
List<PermissionTemplateGroupDto> groupPermissions, Paging paging) {
    Multimap<Integer, String> permissionsByGroupId = TreeMultimap.create();
    groupPermissions.forEach(groupPermission -> permissionsByGroupId.put(groupPermission.getGroupId(),
groupPermission.getPermission()));
    Permissions.WsGroupsResponse.Builder response = Permissions.WsGroupsResponse.newBuilder();

```

```

    groups.forEach(group -> {
        Permissions.Group.Builder wsGroup = response.addGroupsBuilder()
            .setName(group.getName());
        if (group.getId() != 0) {
            wsGroup.setId(String.valueOf(group.getId()));
        }
        setNullable(group.getDescription(), wsGroup::setDescription);
        wsGroup.addAllPermissions(permissionsByGroupId.get(group.getId()));
    });

```

```

    response.getPagingBuilder()
        .setPageIndex(paging.pageIndex())
        .setPageSize(paging.pageSize())
        .setTotal(paging.total());
    return response.build();
}

```

```

private List<GroupDto> findGroups(DbSession dbSession, PermissionQuery dbQuery, PermissionTemplateDto
template) {
    List<String> orderedNames =
dbClient.permissionTemplateDao().selectGroupNamesByQueryAndTemplate(dbSession, dbQuery,
template.getId());
    List<GroupDto> groups = dbClient.groupDao().selectByNames(dbSession, template.getOrganizationUuid(),
orderedNames);
    if (orderedNames.contains(DefaultGroups.ANYONE)) {
        groups.add(0, new GroupDto().setId(0).setName(DefaultGroups.ANYONE));
    }
    return Ordering.explicit(orderedNames).onResultOf(GroupDto::getName).immutableSortedCopy(groups);
}

```

```

private List<PermissionTemplateGroupDto> findGroupPermissions(DbSession dbSession, List<GroupDto>
groups, PermissionTemplateDto template) {

```

```

    List<String> names = groups.stream().map(GroupDto::getName).collect(Collectors.toList());
    return dbClient.permissionTemplateDao().selectGroupPermissionsByTemplateIdAndGroupNames(dbSession,
template.getId(), names);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

import org.junit.rules.ExternalResource;
import org.sonar.api.resources.ResourceType;
import org.sonar.api.resources.ResourceTypeTree;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.db.organization.DefaultTemplates;

import static org.sonar.api.resources.Qualifiers.APP;
import static org.sonar.api.resources.Qualifiers.PROJECT;
import static org.sonar.api.resources.Qualifiers.VIEW;

public class DefaultTemplatesResolverRule extends ExternalResource implements DefaultTemplatesResolver {
    private static final DefaultTemplatesResolver WITH_GOV = new DefaultTemplatesResolverImpl(
        new ResourceTypes(new ResourceTypeTree[] {
            ResourceTypeTree.builder()
                .addType(ResourceType.builder(PROJECT).build())
                .build(),
            ResourceTypeTree.builder()
                .addType(ResourceType.builder(VIEW).build())
                .build(),
            ResourceTypeTree.builder()
                .addType(ResourceType.builder(APP).build())
                .build()
        })
    );
}

```

```

    ));
private static final DefaultTemplatesResolver WITHOUT_GOV = new DefaultTemplatesResolverImpl(
    new ResourceTypes(new ResourceTypeTree[] {ResourceTypeTree.builder()
        .addType(ResourceType.builder(PROJECT).build())
        .build()}));

private final boolean governanceInitiallyInstalled;
private boolean governanceInstalled;

private DefaultTemplatesResolverRule(boolean governanceInitiallyInstalled) {
    this.governanceInitiallyInstalled = governanceInitiallyInstalled;
    this.governanceInstalled = governanceInitiallyInstalled;
}

@Override
protected void before() {
    this.governanceInstalled = governanceInitiallyInstalled;
}

public void installGovernance() {
    this.governanceInstalled = true;
}

public void uninstallGovernance() {
    this.governanceInstalled = false;
}

public static DefaultTemplatesResolverRule withoutGovernance() {
    return new DefaultTemplatesResolverRule(false);
}

public static DefaultTemplatesResolverRule withGovernance() {
    return new DefaultTemplatesResolverRule(true);
}

@Override
public DefaultTemplatesResolverImpl.ResolvedDefaultTemplates resolve(DefaultTemplates defaultTemplates) {
    if (governanceInstalled) {
        return WITH_GOV.resolve(defaultTemplates);
    }
    return WITHOUT_GOV.resolve(defaultTemplates);
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *

```



```

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```

```
package org.sonar.server.permission;
```

```

import java.util.List;
import java.util.Optional;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.UserPermissionDto;

import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.server.permission.PermissionChange.Operation.ADD;
import static org.sonar.server.permission.PermissionChange.Operation.REMOVE;
import static org.sonar.server.ws.WsUtils.checkRequest;

```

```

/**
 * Adds and removes user permissions. Both global and project scopes are supported.
 */

```

```

public class UserPermissionChanger {

    private final DbClient dbClient;

    public UserPermissionChanger(DbClient dbClient) {
        this.dbClient = dbClient;
    }

    public boolean apply(DbSession dbSession, UserPermissionChange change) {
        ensureConsistencyWithVisibility(change);
        if (isImplicitlyAlreadyDone(change)) {
            return false;
        }
        switch (change.getOperation()) {
            case ADD:
                return addPermission(dbSession, change);
            case REMOVE:

```

```

        return removePermission(dbSession, change);
    default:
        throw new UnsupportedOperationException("Unsupported permission change: " + change.getOperation());
    }
}

private static boolean isImplicitlyAlreadyDone(UserPermissionChange change) {
    return change.getProjectId()
        .map(projectId -> isImplicitlyAlreadyDone(projectId, change))
        .orElse(false);
}

private static boolean isImplicitlyAlreadyDone(ProjectId projectId, UserPermissionChange change) {
    return isAttemptToAddPublicPermissionToPublicComponent(change, projectId);
}

private static boolean isAttemptToAddPublicPermissionToPublicComponent(UserPermissionChange change,
ProjectId projectId) {
    return !projectId.isPrivate()
        && change.getOperation() == ADD
        && ProjectPermissions.PUBLIC_PERMISSIONS.contains(change.getPermission());
}

private static void ensureConsistencyWithVisibility(UserPermissionChange change) {
    change.getProjectId()
        .ifPresent(projectId -> checkRequest(
            !isAttemptToRemovePublicPermissionFromPublicComponent(change, projectId),
            "Permission %s can't be removed from a public component", change.getPermission()));
}

private static boolean isAttemptToRemovePublicPermissionFromPublicComponent(UserPermissionChange
change, ProjectId projectId) {
    return !projectId.isPrivate()
        && change.getOperation() == REMOVE
        && ProjectPermissions.PUBLIC_PERMISSIONS.contains(change.getPermission());
}

private boolean addPermission(DbSession dbSession, UserPermissionChange change) {
    if (loadExistingPermissions(dbSession, change).contains(change.getPermission())) {
        return false;
    }
    UserPermissionDto dto = new UserPermissionDto(change.getOrganizationUuid(), change.getPermission(),
change.getUserId().getId(), change.getNullableProjectId());
    dbClient.userPermissionDao().insert(dbSession, dto);
    return true;
}

private boolean removePermission(DbSession dbSession, UserPermissionChange change) {

```

```

if (!loadExistingPermissions(dbSession, change).contains(change.getPermission())) {
    return false;
}
checkOtherAdminsExist(dbSession, change);
Optional<ProjectId> projectId = change.getProjectId();
if (projectId.isPresent()) {
    dbClient.userPermissionDao().deleteProjectPermission(dbSession, change.getUserId().getId(),
change.getPermission(), projectId.get().getId());
} else {
    dbClient.userPermissionDao().deleteGlobalPermission(dbSession, change.getUserId().getId(),
change.getPermission(), change.getOrganizationUuid());
}
return true;
}

private List<String> loadExistingPermissions(DbSession dbSession, UserPermissionChange change) {
    Optional<ProjectId> projectId = change.getProjectId();
    if (projectId.isPresent()) {
        return dbClient.userPermissionDao().selectProjectPermissionsOfUser(dbSession,
            change.getUserId().getId(),
            projectId.get().getId());
    }
    return dbClient.userPermissionDao().selectGlobalPermissionsOfUser(dbSession,
        change.getUserId().getId(),
        change.getOrganizationUuid());
}

private void checkOtherAdminsExist(DbSession dbSession, UserPermissionChange change) {
    if (SYSTEM_ADMIN.equals(change.getPermission()) && !change.getProjectId().isPresent()) {
        int remaining =
dbClient.authorizationDao().countUsersWithGlobalPermissionExcludingUserPermission(dbSession,
        change.getOrganizationUuid(), change.getPermission(), change.getUserId().getId());
        checkRequest(remaining > 0, "Last user with permission '%s'. Permission cannot be removed.",
SYSTEM_ADMIN);
    }
}
}
}

```

Apache License
 Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise

designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must

include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly

negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.server.permission.ws.template;

import com.google.common.collect.Multimap;

import com.google.common.collect.Ordering;

import com.google.common.collect.TreeMultimap;

import java.util.List;

import java.util.stream.Collectors;

import org.sonar.api.server.ws.Request;

```

import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.utils.Paging;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.permission.template.PermissionTemplateUserDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.issue.ws.AvatarResolver;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Permissions;
import org.sonarqube.ws.Permissions.UsersWsResponse;

import static com.google.common.base.Strings.emptyOrNull;
import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.core.util.Protobuf.setNullable;
import static org.sonar.db.permission.PermissionQuery.DEFAULT_PAGE_SIZE;
import static org.sonar.db.permission.PermissionQuery.RESULTS_MAX_SIZE;
import static org.sonar.db.permission.PermissionQuery.SEARCH_QUERY_MIN_LENGTH;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class TemplateUsersAction implements PermissionsWsAction {

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionWsSupport support;
    private final AvatarResolver avatarResolver;

    public TemplateUsersAction(DbClient dbClient, UserSession userSession, PermissionWsSupport support,
AvatarResolver avatarResolver) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.support = support;
        this.avatarResolver = avatarResolver;
    }

    @Override

```



```

public void define(WebService.NewController context) {
    WebService.NewAction action = context
        .createAction("template_users")
        .setSince("5.2")
        .setDescription("Lists the users with their permission as individual users rather than through group affiliation on
the chosen template. <br />" +
            "This service defaults to all users, but can be limited to users with a specific permission by providing the desired
permission.<br>" +
            "Requires the following permission: 'Administer System'.")
        .addPagingParams(DEFAULT_PAGE_SIZE, RESULTS_MAX_SIZE)
        .setInternal(true)
        .setResponseExample(getClass().getResource("template_users-example.json"))
        .setHandler(this);

    action.createParam(Param.TEXT_QUERY)
        .setMinimumLength(SEARCH_QUERY_MIN_LENGTH)
        .setDescription("Limit search to user names that contain the supplied string. <br/>" +
            "When this parameter is not set, only users having at least one permission are returned.")
        .setExampleValue("eri");
    createProjectPermissionParameter(action).setRequired(false);
    createTemplateParameters(action);
}

@Override
public void handle(Request wsRequest, Response wsResponse) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        WsTemplateRef templateRef = WsTemplateRef.fromRequest(wsRequest);
        PermissionTemplateDto template = support.findTemplate(dbSession, templateRef);
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        PermissionQuery query = buildQuery(wsRequest, template);
        int total = dbClient.permissionTemplateDao().countUserLoginsByQueryAndTemplate(dbSession, query,
template.getId());
        Paging paging =
Paging.forPageIndex(wsRequest.mandatoryParamAsInt(PAGE)).withPageSize(wsRequest.mandatoryParamAsInt(P
AGE_SIZE)).andTotal(total);
        List<UserDto> users = findUsers(dbSession, query, template);
        List<PermissionTemplateUserDto> permissionTemplateUsers =
dbClient.permissionTemplateDao().selectUserPermissionsByTemplateIdAndUserLogins(dbSession,
template.getId(),
        users.stream().map(UserDto::getLogin).collect(Collectors.toList()));
        Permissions.UsersWsResponse templateUsersResponse = buildResponse(users, permissionTemplateUsers,
paging);
        writeProtobuf(templateUsersResponse, wsRequest, wsResponse);
    }
}

private static PermissionQuery buildQuery(Request wsRequest, PermissionTemplateDto template) {

```

```

String textQuery = wsRequest.param(TEXT_QUERY);
String permission = wsRequest.param(PARAM_PERMISSION);
PermissionQuery.Builder query = PermissionQuery.builder()
    .setOrganizationUuid(template.getOrganizationUuid())
    .setTemplate(template.getUuid())
    .setPermission(permission != null ? validateProjectPermission(permission) : null)
    .setPageIndex(wsRequest.mandatoryParamAsInt(PAGE))
    .setPageSize(wsRequest.mandatoryParamAsInt(PAGE_SIZE))
    .setSearchQuery(textQuery);
if (textQuery == null) {
    query.withAtLeastOnePermission();
}
return query.build();
}

private Permissions.UsersWsResponse buildResponse(List<UserDto> users, List<PermissionTemplateUserDto>
permissionTemplateUsers, Paging paging) {
    Multimap<Integer, String> permissionsByUserId = TreeMultimap.create();
    permissionTemplateUsers.forEach(userPermission -> permissionsByUserId.put(userPermission.getUserId(),
userPermission.getPermission()));

    UsersWsResponse.Builder responseBuilder = UsersWsResponse.newBuilder();
    users.forEach(user -> {
        Permissions.User.Builder userResponse = responseBuilder.addUsersBuilder()
            .setLogin(user.getLogin())
            .addAllPermissions(permissionsByUserId.get(user.getId()));
        setNullable(user.getEmail(), userResponse::setEmail);
        setNullable(user.getName(), userResponse::setName);
        setNullable(emptyOrNull(user.getEmail()), u -> userResponse.setAvatar(avatarResolver.create(user)));
    });
    responseBuilder.getPagingBuilder()
        .setPageIndex(paging.pageIndex())
        .setPageSize(paging.pageSize())
        .setTotal(paging.total())
        .build();
    return responseBuilder.build();
}

private List<UserDto> findUsers(DbSession dbSession, PermissionQuery query, PermissionTemplateDto template)
{
    List<String> orderedLogins =
dbClient.permissionTemplateDao().selectUserLoginsByQueryAndTemplate(dbSession, query, template.getId());
    return
Ordering.explicit(orderedLogins).onResultOf(UserDto::getLogin).immutableSortedCopy(dbClient.userDao().select
ByLogins(dbSession, orderedLogins));
}
}
}

```

```
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
```

```
package org.sonar.db.permission.template;
```

```
import java.util.Collections;
import java.util.Date;
import java.util.HashMap;
import java.util.List;
import java.util.Locale;
import java.util.Map;
import javax.annotation.CheckForNull;
import javax.annotation.Nullable;
import org.apache.ibatis.session.ResultHandler;
import org.apache.ibatis.session.RowBounds;
import org.sonar.api.utils.System2;
import org.sonar.db.Dao;
import org.sonar.db.DbSession;
import org.sonar.db.permission.CountPerProjectPermission;
import org.sonar.db.permission.PermissionQuery;

import static java.lang.String.format;
import static org.sonar.api.security.DefaultGroups.ANYONE;
import static org.sonar.db.DatabaseUtils.executeLargeInputs;
import static org.sonar.db.DatabaseUtils.executeLargeInputsWithoutOutput;

public class PermissionTemplateDao implements Dao {

    private static final String ANYONE_GROUP_PARAMETER = "anyoneGroup";

    private final System2 system;
```

```

public PermissionTemplateDao(System2 system) {
    this.system = system;
}

/**
 * @return a paginated list of user logins.
 */
public List<String> selectUserLoginsByQueryAndTemplate(DbSession session, PermissionQuery query, long
templateId) {
    return mapper(session).selectUserLoginsByQueryAndTemplate(query, templateId, new
RowBounds(query.getPageOffset(), query.getPageSize()));
}

public int countUserLoginsByQueryAndTemplate(DbSession session, PermissionQuery query, long templateId) {
    return mapper(session).countUserLoginsByQueryAndTemplate(query, templateId);
}

public List<PermissionTemplateUserDto> selectUserPermissionsByTemplateIdAndUserLogins(DbSession
dbSession, long templateId, List<String> logins) {
    return executeLargeInputs(logins, l ->
mapper(dbSession).selectUserPermissionsByTemplateIdAndUserLogins(templateId, l));
}

public List<PermissionTemplateUserDto> selectUserPermissionsByTemplateId(DbSession dbSession, long
templateId) {
    return mapper(dbSession).selectUserPermissionsByTemplateIdAndUserLogins(templateId,
Collections.emptyList());
}

public List<String> selectGroupNamesByQueryAndTemplate(DbSession session, PermissionQuery query, long
templateId) {
    return mapper(session).selectGroupNamesByQueryAndTemplate(templateId, query, new
RowBounds(query.getPageOffset(), query.getPageSize()));
}

public int countGroupNamesByQueryAndTemplate(DbSession session, PermissionQuery query, String
organizationUuid, long templateId) {
    return mapper(session).countGroupNamesByQueryAndTemplate(organizationUuid, query, templateId);
}

public List<PermissionTemplateGroupDto> selectGroupPermissionsByTemplateIdAndGroupNames(DbSession
dbSession, long templateId, List<String> groups) {
    return executeLargeInputs(groups, g ->
mapper(dbSession).selectGroupPermissionsByTemplateIdAndGroupNames(templateId, g));
}

public List<PermissionTemplateGroupDto> selectGroupPermissionsByTemplateId(DbSession dbSession, long
templateId) {

```

```

    return mapper(dbSession).selectGroupPermissionsByTemplateIdAndGroupNames(templateId,
Collections.emptyList());
}

/**
 * @return { @code true} if template contains groups that are granted with { @code permission}, else { @code
false}
 */
public boolean hasGroupsWithPermission(DbSession dbSession, long templateId, String permission, @Nullable
Integer groupId) {
    return mapper(dbSession).countGroupsWithPermission(templateId, permission, groupId) > 0;
}

@CheckForNull
public PermissionTemplateDto selectByUuid(DbSession session, String templateUuid) {
    return mapper(session).selectByUuid(templateUuid);
}

public List<PermissionTemplateDto> selectAll(DbSession session, String organizationUuid, @Nullable String
nameMatch) {
    String upperCaseNameLikeSql = nameMatch != null ? toUpperCaseSqlQuery(nameMatch) : null;
    return mapper(session).selectAll(organizationUuid, upperCaseNameLikeSql);
}

private static String toUpperCaseSqlQuery(String nameMatch) {
    String wildcard = "%";
    return format("%s%s%s", wildcard, nameMatch.toUpperCase(Locale.ENGLISH), wildcard);
}

public PermissionTemplateDto insert(DbSession session, PermissionTemplateDto dto) {
    mapper(session).insert(dto);
    return dto;
}

/**
 * Each row returns a #{ @link CountPerProjectPermission}
 */
public void usersCountByTemplateIdAndPermission(DbSession dbSession, List<Long> templateIds,
ResultHandler<CountByTemplateAndPermissionDto> resultHandler) {
    Map<String, Object> parameters = new HashMap<>(1);

    executeLargeInputsWithoutOutput(
        templateIds,
        partitionedTemplateIds -> {
            parameters.put("templateIds", partitionedTemplateIds);
            mapper(dbSession).usersCountByTemplateIdAndPermission(parameters, resultHandler);
        });
}

```

```

/**
 * Each row returns a #{ @link CountPerProjectPermission }
 */
public void groupsCountByTemplateIdAndPermission(DbSession dbSession, List<Long> templateIds,
ResultHandler<CountByTemplateAndPermissionDto> resultHandler) {
    Map<String, Object> parameters = new HashMap<>(2);
    parameters.put(ANYONE_GROUP_PARAMETER, ANYONE);

    executeLargeInputsWithoutOutput(
        templateIds,
        partitionedTemplateIds -> {
            parameters.put("templateIds", partitionedTemplateIds);
            mapper(dbSession).groupsCountByTemplateIdAndPermission(parameters, resultHandler);
        });
}

public List<PermissionTemplateGroupDto> selectAllGroupPermissionTemplatesByGroupId(DbSession dbSession,
long groupId) {
    return mapper(dbSession).selectAllGroupPermissionTemplatesByGroupId(groupId);
}

public void deleteById(DbSession session, long templateId) {
    PermissionTemplateMapper mapper = mapper(session);
    mapper.deleteUserPermissionsByTemplateId(templateId);
    mapper.deleteGroupPermissionsByTemplateId(templateId);
    session.getMapper(PermissionTemplateCharacteristicMapper.class).deleteByTemplateId(templateId);
    mapper.deleteById(templateId);
}

public PermissionTemplateDto update(DbSession session, PermissionTemplateDto permissionTemplate) {
    mapper(session).update(permissionTemplate);
    return permissionTemplate;
}

public void insertUserPermission(DbSession session, Long templateId, Integer userId, String permission) {
    PermissionTemplateUserDto permissionTemplateUser = new PermissionTemplateUserDto()
        .setTemplateId(templateId)
        .setUserId(userId)
        .setPermission(permission)
        .setCreatedAt(now())
        .setUpdatedAt(now());

    mapper(session).insertUserPermission(permissionTemplateUser);
    session.commit();
}

public void deleteUserPermission(DbSession session, Long templateId, Integer userId, String permission) {

```

```

PermissionTemplateUserDto permissionTemplateUser = new PermissionTemplateUserDto()
    .setTemplateId(templateId)
    .setPermission(permission)
    .setUserId(userId);
mapper(session).deleteUserPermission(permissionTemplateUser);
session.commit();
}

public void deleteUserPermissionsByOrganization(DbSession dbSession, String organizationUuid, int userId) {
    mapper(dbSession).deleteUserPermissionsByOrganization(organizationUuid, userId);
}

public void deleteUserPermissionsByUserId(DbSession dbSession, int userId) {
    mapper(dbSession).deleteUserPermissionsByUserId(userId);
}

public void insertGroupPermission(DbSession session, long templateId, @Nullable Integer groupId, String
permission) {
    PermissionTemplateGroupDto permissionTemplateGroup = new PermissionTemplateGroupDto()
        .setTemplateId(templateId)
        .setPermission(permission)
        .setGroupId(groupId)
        .setCreatedAt(now())
        .setUpdatedAt(now());
mapper(session).insertGroupPermission(permissionTemplateGroup);
}

public void insertGroupPermission(DbSession session, PermissionTemplateGroupDto permissionTemplateGroup)
{
    mapper(session).insertGroupPermission(permissionTemplateGroup);
}

public void deleteGroupPermission(DbSession session, Long templateId, @Nullable Integer groupId, String
permission) {
    PermissionTemplateGroupDto permissionTemplateGroup = new PermissionTemplateGroupDto()
        .setTemplateId(templateId)
        .setPermission(permission)
        .setGroupId(groupId);
mapper(session).deleteGroupPermission(permissionTemplateGroup);
session.commit();
}

public PermissionTemplateDto selectByName(DbSession dbSession, String organizationUuid, String name) {
    return mapper(dbSession).selectByName(organizationUuid, name.toUpperCase(Locale.ENGLISH));
}

public List<String> selectPotentialPermissionsByUserIdAndTemplateId(DbSession dbSession, @Nullable Integer
currentUserId, long templateId) {

```

```

    return mapper(dbSession).selectPotentialPermissionsByUserIdAndTemplateId(currentUserId, templateId);
}

/**
 * Remove a group from all templates (used when removing a group)
 */
public void deleteByGroup(DbSession session, int groupId) {
    session.getMapper(PermissionTemplateMapper.class).deleteByGroupId(groupId);
}

private Date now() {
    return new Date(system.now());
}

private static PermissionTemplateMapper mapper(DbSession session) {
    return session.getMapper(PermissionTemplateMapper.class);
}

public void deleteByOrganization(DbSession dbSession, String organizationUuid) {
    PermissionTemplateMapper templateMapper = mapper(dbSession);
    PermissionTemplateCharacteristicMapper templateCharacteristicMapper =
dbSession.getMapper(PermissionTemplateCharacteristicMapper.class);
    List<Long> templateIds = templateMapper.selectTemplateIdsByOrganization(organizationUuid);
    executeLargeInputsWithoutOutput(templateIds, subList -> {
        templateCharacteristicMapper.deleteByTemplateIds(subList);
        templateMapper.deleteGroupPermissionsByTemplateIds(subList);
        templateMapper.deleteUserPermissionsByTemplateIds(subList);
        templateMapper.deleteByIds(subList);
    });
}
}
}
/**
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,

```


* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

@ParametersAreNonnullByDefault

package org.sonar.server.permission.ws.template;

```
import javax.annotation.ParametersAreNonnullByDefault;
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or
```

```
* modify it under the terms of the GNU Lesser General Public
```

```
* License as published by the Free Software Foundation; either
```

```
* version 3 of the License, or (at your option) any later version.
```

```
*
```

```
* This program is distributed in the hope that it will be useful,
```

```
* but WITHOUT ANY WARRANTY; without even the implied warranty of
```

```
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
```

```
* Lesser General Public License for more details.
```

```
*
```

```
* You should have received a copy of the GNU Lesser General Public License
```

```
* along with this program; if not, write to the Free Software Foundation,
```

```
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

```
*/
```

```
import { shallow } from 'enzyme';
```

```
import React from 'react';
```

```
import Defaults from '../Defaults';
```

```
const SAMPLE = {
```

```
  id: 'id',
```

```
  name: 'name',
```

```
  permissions: []
```

```
};
```

```
it('should render one qualifier', () => {
```

```
  const sample = { ...SAMPLE, defaultFor: ['DEV'] };
```

```
  const output = shallow(<Defaults permissionTemplate={sample} />);
```

```
  expect(output).toMatchSnapshot();
```

```
});
```

```
it('should render several qualifiers', () => {
```

```
  const sample = { ...SAMPLE, defaultFor: ['TRK', 'VW'] };
```

```
  const output = shallow(<Defaults permissionTemplate={sample} />);
```

```
  expect(output).toMatchSnapshot();
```

```
});
```

```
it('should render several qualifiers for default organization', () => {
```

```

const sample = { ...SAMPLE, defaultFor: ['TRK', 'VW'] };
const organization = { isDefault: true };
const output = shallow(<Defaults permissionTemplate={sample} organization={organization} />);
expect(output).toMatchSnapshot();
});

```

```

it('should render only projects for custom organization', () => {
const sample = { ...SAMPLE, defaultFor: ['TRK', 'VW'] };
const organization = { isDefault: false };
const output = shallow(<Defaults permissionTemplate={sample} organization={organization} />);
expect(output).toMatchSnapshot();
});

```

```
});
```

```
/*
```

```
* SonarQube
```

```
* Copyright (C) 2009-2018 SonarSource SA
```

```
* mailto:info AT sonarsource DOT com
```

```
*
```

```
* This program is free software; you can redistribute it and/or
```

```
* modify it under the terms of the GNU Lesser General Public
```

```
* License as published by the Free Software Foundation; either
```

```
* version 3 of the License, or (at your option) any later version.
```

```
*
```

```
* This program is distributed in the hope that it will be useful,
```

```
* but WITHOUT ANY WARRANTY; without even the implied warranty of
```

```
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
```

```
* Lesser General Public License for more details.
```

```
*
```

```
* You should have received a copy of the GNU Lesser General Public License
```

```
* along with this program; if not, write to the Free Software Foundation,
```

```
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

```
*/
```

```
package org.sonar.db.permission;
```

```
import java.util.Collection;
```

```
import java.util.List;
```

```
import java.util.Set;
```

```
import org.sonar.core.util.stream.MoreCollectors;
```

```
import org.sonar.db.Dao;
```

```
import org.sonar.db.DatabaseUtils;
```

```
import org.sonar.db.DbSession;
```

```
import org.sonar.db.component.ComponentMapper;
```

```
import static com.google.common.base.Preconditions.checkArgument;
```

```
import static java.util.Collections.emptyList;
```

```
import static org.sonar.db.DatabaseUtils.executeLargeInputs;
```

```
public class UserPermissionDao implements Dao {
```

```

/**
 * List of user permissions ordered by alphabetical order of user names.
 * Pagination is NOT applied.
 * No sort is done.
 *
 * @param query non-null query including optional filters.
 * @param userIds Filter on user ids, including disabled users. Must not be empty and maximum size is {@link
DatabaseUtils#PARTITION_SIZE_FOR_ORACLE}.
 */
public List<UserPermissionDto> selectUserPermissionsByQuery(DbSession dbSession, PermissionQuery query,
Collection<Integer> userIds) {
    if (userIds.isEmpty()) {
        return emptyList();
    }
    checkArgument(userIds.size() <= DatabaseUtils.PARTITION_SIZE_FOR_ORACLE, "Maximum 1'000 users are
accepted");
    return mapper(dbSession).selectUserPermissionsByQueryAndUserIds(query, userIds);
}

public List<Integer> selectUserIdsByQuery(DbSession dbSession, PermissionQuery query) {
    return mapper(dbSession).selectUserIdsByQuery(query)
        .stream()
        // Pagination is done in Java because it's too complex to use SQL pagination in Oracle and MsSQL with the
distinct
        .skip(query.getPageOffset())
        .limit(query.getPageSize())
        .collect(MoreCollectors.toList());
}

public int countUsersByQuery(DbSession dbSession, PermissionQuery query) {
    return mapper(dbSession).countUsersByQuery(query);
}

/**
 * Count the number of users per permission for a given list of projects
 *
 * @param projectIds a non-null list of project ids to filter on. If empty then an empty list is returned.
 */
public List<CountPerProjectPermission> countUsersByProjectPermission(DbSession dbSession, Collection<Long>
projectIds) {
    return executeLargeInputs(projectIds, mapper(dbSession)::countUsersByProjectPermission);
}

/**
 * Gets all the global permissions granted to user for the specified organization.
 *
 * @return the global permissions. An empty list is returned if user or organization do not exist.
 */

```

```

public List<String> selectGlobalPermissionsOfUser(DbSession dbSession, int userId, String organizationUuid) {
    return mapper(dbSession).selectGlobalPermissionsOfUser(userId, organizationUuid);
}

/**
 * Gets all the project permissions granted to user for the specified project.
 *
 * @return the project permissions. An empty list is returned if project or user do not exist.
 */
public List<String> selectProjectPermissionsOfUser(DbSession dbSession, int userId, long projectId) {
    return mapper(dbSession).selectProjectPermissionsOfUser(userId, projectId);
}

public Set<Integer> selectUserIdsWithPermissionOnProjectBut(DbSession session, long projectId, String
permission) {
    return mapper(session).selectUserIdsWithPermissionOnProjectBut(projectId, permission);
}

public void insert(DbSession dbSession, UserPermissionDto dto) {
    ensureComponentPermissionConsistency(dbSession, dto);
    mapper(dbSession).insert(dto);
}

private static void ensureComponentPermissionConsistency(DbSession dbSession, UserPermissionDto dto) {
    if (dto.getComponentId() == null) {
        return;
    }
    ComponentMapper componentMapper = dbSession.getMapper(ComponentMapper.class);
    checkArgument(
        componentMapper.countComponentByOrganizationAndId(dto.getOrganizationUuid(), dto.getComponentId())
        == 1,
        "Can't insert permission '%s' for component with id '%s' in organization with uuid '%s' because this component
does not belong to organization with uuid '%s'",
        dto.getPermission(), dto.getComponentId(), dto.getOrganizationUuid(), dto.getOrganizationUuid());
}

/**
 * Removes a single global permission from user
 */
public void deleteGlobalPermission(DbSession dbSession, int userId, String permission, String organizationUuid) {
    mapper(dbSession).deleteGlobalPermission(userId, permission, organizationUuid);
}

/**
 * Removes a single project permission from user
 */
public void deleteProjectPermission(DbSession dbSession, int userId, String permission, long projectId) {
    mapper(dbSession).deleteProjectPermission(userId, permission, projectId);
}

```

```

}

/**
 * Deletes all the permissions defined on a project
 */
public void deleteProjectPermissions(DbSession dbSession, long projectId) {
    mapper(dbSession).deleteProjectPermissions(projectId);
}

/**
 * Deletes the specified permission on the specified project for any user.
 */
public int deleteProjectPermissionOfAnyUser(DbSession dbSession, long projectId, String permission) {
    return mapper(dbSession).deleteProjectPermissionOfAnyUser(projectId, permission);
}

public void deleteByOrganization(DbSession dbSession, String organizationUuid) {
    mapper(dbSession).deleteByOrganization(organizationUuid);
}

public void deleteOrganizationMemberPermissions(DbSession dbSession, String organizationUuid, int userId) {
    mapper(dbSession).deleteOrganizationMemberPermissions(organizationUuid, userId);
}

public void deleteByUserId(DbSession dbSession, int userId) {
    mapper(dbSession).deleteByUserId(userId);
}

private static UserPermissionMapper mapper(DbSession dbSession) {
    return dbSession.getMapper(UserPermissionMapper.class);
}
}

```

ANTLR 2 License

We reserve no legal rights to the ANTLR--it is fully in the public domain. An individual or company may do whatever they wish with source code distributed with ANTLR or the code generated by ANTLR, including the incorporation of ANTLR, or its output, into commercial software.

We encourage users to develop software with ANTLR. However, we do ask that credit is given to us for developing ANTLR. By "credit", we mean that if you use ANTLR or incorporate any source code into one of your programs (commercial product, research project, or otherwise) that you acknowledge this fact somewhere in the documentation, research report, etc... If you like ANTLR and have developed a nice tool with the output, please mention that you developed it using ANTLR. In addition, we ask that the headers remain intact in our source code. As long as these guidelines are kept, we expect to continue enhancing this system and expect to make other tools available as they are completed.

In countries where the Public Domain status of the work may not be valid, the author grants a copyright licence to the general public to deal in the work without restriction and permission to sublicense derivatives

under the terms of any (OSI approved) Open Source licence.

The Python parser generator code under antlr/actions/python/ is covered by the 3-clause BSD licence (this part is included in the binary JAR files); the run-time part under lib/python/ is covered by the GNU GPL, version 3 or later (this part is not included in the binary JAR files). See [1] for the full details.

<https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=750643#80%22>

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.db.permission;

import org.junit.Test;

import static org.assertj.core.api.Assertions.assertThat;

public class OrganizationPermissionTest {

@Test

public void fromKey_returns_enum_with_specified_key() {

for (OrganizationPermission p : OrganizationPermission.values()) {

assertThat(OrganizationPermission.fromKey(p.getKey()).isEqualTo(p);

}

}

@Test

public void all_returns_stream_of_values() {

assertThat(OrganizationPermission.all()).hasSize(OrganizationPermission.values().length);

for (OrganizationPermission permission : OrganizationPermission.values()) {

assertThat(OrganizationPermission.all()).contains(permission);

}

}

```

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.core.permission;

import com.google.common.base.Joiner;
import com.google.common.collect.ImmutableList;
import com.google.common.collect.ImmutableSet;
import java.util.List;
import java.util.Set;
import org.sonar.api.web.UserRole;

/**
 * Holds the constants representing the various component permissions that can be assigned to users & groups
 */
public final class ProjectPermissions {
    /**
     * Permissions which are implicitly available for any user, any group and to group "AnyOne" on public
     components.
     */
    public static final Set<String> PUBLIC_PERMISSIONS = ImmutableSet.of(UserRole.USER,
        UserRole.CODEVIEWER);

    /**
     * All the component permissions values, ordered from {@link UserRole#USER} to {@link
        GlobalPermissions#SCAN_EXECUTION}.
     */
    public static final List<String> ALL = ImmutableList.of(UserRole.ADMIN, UserRole.CODEVIEWER,
        UserRole.ISSUE_ADMIN, GlobalPermissions.SCAN_EXECUTION, UserRole.USER);

    public static final String ALL_ON_ONE_LINE = Joiner.on(", ").join(ProjectPermissions.ALL);

```

```

private ProjectPermissions() {
    // static constants only
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Collections;
import java.util.List;
import org.apache.commons.lang.StringUtils;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.web.UserRole;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.es.ProjectIndexers;
import org.sonar.server.es.TestProjectIndexers;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.i18n.I18nRule;
import org.sonar.server.permission.PermissionTemplateService;
import org.sonar.server.permission.ws.BasePermissionWsTest;

```



```

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.utils.DateUtils.parseDate;
import static org.sonar.db.component.ComponentTesting.newApplication;
import static org.sonar.db.component.ComponentTesting.newView;
import static org.sonar.db.component.SnapshotTesting.newAnalysis;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_ANALYZED_BEFORE;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_ON_PROVISIONED_ONLY;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_PROJECTS;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_QUALIFIERS;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_VISIBILITY;

public class BulkApplyTemplateActionTest extends BasePermissionWsTest<BulkApplyTemplateAction> {

    @org.junit.Rule
    public DefaultTemplatesResolverRule defaultTemplatesResolver =
        DefaultTemplatesResolverRule.withoutGovernance();

    private UserDto user1;
    private UserDto user2;
    private GroupDto group1;
    private GroupDto group2;
    private OrganizationDto organization;
    private PermissionTemplateDto template1;
    private PermissionTemplateDto template2;
    private ProjectIndexers projectIndexers = new TestProjectIndexers();

    @Override
    protected BulkApplyTemplateAction buildWsAction() {
        PermissionTemplateService permissionTemplateService = new PermissionTemplateService(db.getDbClient(),
            projectIndexers, userSession, defaultTemplatesResolver);
        return new BulkApplyTemplateAction(db.getDbClient(), userSession, permissionTemplateService,
            newPermissionWsSupport(), new I18nRule(), newRootResourceTypes());
    }

    @Before
    public void setUp() {
        organization = db.organizations().insert();

        user1 = db.users().insertUser();
        user2 = db.users().insertUser();
        group1 = db.users().insertGroup(organization);
        group2 = db.users().insertGroup(organization);

        db.organizations().addMember(organization, user1);
    }
}

```

```

db.organizations().addMember(organization, user2);

// template 1 for org 1
template1 = db.permissionTemplates().insertTemplate(organization);
addUserToTemplate(user1, template1, UserRole.CODEVIEWER);
addUserToTemplate(user2, template1, UserRole.ISSUE_ADMIN);
addGroupToTemplate(group1, template1, UserRole.ADMIN);
addGroupToTemplate(group2, template1, UserRole.USER);
// template 2
template2 = db.permissionTemplates().insertTemplate(organization);
addUserToTemplate(user1, template2, UserRole.USER);
addUserToTemplate(user2, template2, UserRole.USER);
addGroupToTemplate(group1, template2, UserRole.USER);
addGroupToTemplate(group2, template2, UserRole.USER);
}

@Test
public void bulk_apply_template_by_template_uuid() {
    // this project should not be applied the template
    OrganizationDto otherOrganization = db.organizations().insert();
    db.components().insertPrivateProject(otherOrganization);

    ComponentDto privateProject = db.components().insertPrivateProject(organization);
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .execute();

    assertTemplate1AppliedToPrivateProject(privateProject);
    assertTemplate1AppliedToPublicProject(publicProject);
}

@Test
public void
request_throws_NotFoundException_if_template_with_specified_name_does_not_exist_in_specified_organization(
) {
    OrganizationDto otherOrganization = db.organizations().insert();
    loginAsAdmin(otherOrganization);

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with name '" + template1.getName()
        + "' is not found (case insensitive) in organization with key '" + otherOrganization.getKey() + "'");

    newRequest()
        .setParam(PARAM_ORGANIZATION, otherOrganization.getKey())
        .setParam(PARAM_TEMPLATE_NAME, template1.getName())

```

```

        .execute();
    }

@Test
public void request_throws_IAE_if_more_than_1000_projects() {
    expectedException.expect(IllegalArgumentException.class);
    expectedException.expectMessage("'projects' can contains only 1000 values, got 1001");

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_TEMPLATE_NAME, template1.getName())
        .setParam(PARAM_PROJECTS, StringUtils.join(Collections.nCopies(1_001, "foo"), ","))
        .execute();
}

@Test
public void bulk_apply_template_by_template_name() {
    ComponentDto privateProject = db.components().insertPrivateProject(organization);
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_ORGANIZATION, organization.getKey())
        .setParam(PARAM_TEMPLATE_NAME, template1.getName())
        .execute();

    assertTemplate1AppliedToPrivateProject(privateProject);
    assertTemplate1AppliedToPublicProject(publicProject);
}

@Test
public void apply_template_by_qualifiers() {
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    ComponentDto privateProject = db.components().insertPrivateProject(organization);
    ComponentDto view = db.components().insertComponent(new View(organization));
    ComponentDto application = db.components().insertComponent(new Application(organization));
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_QUALIFIERS, String.join(",", Qualifiers.PROJECT, Qualifiers.APP))
        .execute();

    assertTemplate1AppliedToPrivateProject(privateProject);
    assertTemplate1AppliedToPublicProject(publicProject);
    assertTemplate1AppliedToPublicProject(application);
    assertNoPermissionOnProject(view);
}

```

```

@Test
public void apply_template_by_query_on_name_and_key_public_project() {
    ComponentDto publicProjectFoundByKey =
ComponentTesting.newPublicProjectDto(organization).setDbKey("sonar");
    db.components().insertProjectAndSnapshot(publicProjectFoundByKey);
    ComponentDto publicProjectFoundByName =
ComponentTesting.newPublicProjectDto(organization).setName("name-sonar-name");
    db.components().insertProjectAndSnapshot(publicProjectFoundByName);
    ComponentDto projectUntouched = ComponentTesting.newPublicProjectDto(organization).setDbKey("new-sona").setName("project-name");
    db.components().insertProjectAndSnapshot(projectUntouched);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(Param.TEXT_QUERY, "SONAR")
        .execute();

    assertTemplate1AppliedToPublicProject(publicProjectFoundByKey);
    assertTemplate1AppliedToPublicProject(publicProjectFoundByName);
    assertNoPermissionOnProject(projectUntouched);
}

```

```

@Test
public void apply_template_by_query_on_name_and_key() {
    // partial match on key
    ComponentDto privateProjectFoundByKey =
ComponentTesting.newPrivateProjectDto(organization).setDbKey("sonarqube");
    db.components().insertProjectAndSnapshot(privateProjectFoundByKey);
    ComponentDto privateProjectFoundByName =
ComponentTesting.newPrivateProjectDto(organization).setName("name-sonar-name");
    db.components().insertProjectAndSnapshot(privateProjectFoundByName);
    ComponentDto projectUntouched = ComponentTesting.newPublicProjectDto(organization).setDbKey("new-sona").setName("project-name");
    db.components().insertProjectAndSnapshot(projectUntouched);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(Param.TEXT_QUERY, "SONAR")
        .execute();

    assertTemplate1AppliedToPrivateProject(privateProjectFoundByKey);
    assertTemplate1AppliedToPrivateProject(privateProjectFoundByName);
    assertNoPermissionOnProject(projectUntouched);
}

```

```

@Test
public void apply_template_by_project_keys() {
    ComponentDto project1 = db.components().insertPrivateProject(organization);
    ComponentDto project2 = db.components().insertPrivateProject(organization);
    ComponentDto untouchedProject = db.components().insertPrivateProject(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_PROJECTS, String.join(",", project1.getKey(), project2.getKey()))
        .execute();

    assertTemplate1AppliedToPrivateProject(project1);
    assertTemplate1AppliedToPrivateProject(project2);
    assertNoPermissionOnProject(untouchedProject);
}

```

```

@Test
public void apply_template_by_provisioned_only() {
    ComponentDto provisionedProject1 = db.components().insertPrivateProject(organization);
    ComponentDto provisionedProject2 = db.components().insertPrivateProject(organization);
    ComponentDto analyzedProject = db.components().insertPrivateProject(organization);
    db.components().insertSnapshot(new Analysis(analyzedProject));
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_ON_PROVISIONED_ONLY, "true")
        .execute();

    assertTemplate1AppliedToPrivateProject(provisionedProject1);
    assertTemplate1AppliedToPrivateProject(provisionedProject2);
    assertNoPermissionOnProject(analyzedProject);
}

```

```

@Test
public void apply_template_by_analyzed_before() {
    ComponentDto oldProject1 = db.components().insertPrivateProject(organization);
    ComponentDto oldProject2 = db.components().insertPrivateProject(organization);
    ComponentDto recentProject = db.components().insertPrivateProject(organization);
    db.components().insertSnapshot(oldProject1, a -> a.setCreatedAt(parseDate("2015-02-03").getTime()));
    db.components().insertSnapshot(oldProject2, a -> a.setCreatedAt(parseDate("2016-12-11").getTime()));
    db.components().insertSnapshot(recentProject, a -> a.setCreatedAt(System.currentTimeMillis()));
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_ANALYZED_BEFORE, "2017-09-07")

```

```

        .execute();

    assertTemplate1AppliedToPrivateProject(oldProject1);
    assertTemplate1AppliedToPrivateProject(oldProject2);
    assertNoPermissionOnProject(recentProject);
}

@Test
public void apply_template_by_visibility() {
    ComponentDto privateProject1 = db.components().insertPrivateProject(organization);
    ComponentDto privateProject2 = db.components().insertPrivateProject(organization);
    ComponentDto publicProject = db.components().insertPublicProject(organization);
    loginAsAdmin(organization);

    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_VISIBILITY, "private")
        .execute();

    assertTemplate1AppliedToPrivateProject(privateProject1);
    assertTemplate1AppliedToPrivateProject(privateProject2);
    assertNoPermissionOnProject(publicProject);
}

@Test
public void fail_if_no_template_parameter() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);
    expectedException.expectMessage("Template name or template id must be provided, not both.");

    newRequest().execute();
}

@Test
public void fail_if_template_name_is_incorrect() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-template-uuid' is not found");

    newRequest().setParam(PARAM_TEMPLATE_ID, "unknown-template-uuid").execute();
}

private void assertTemplate1AppliedToPublicProject(ComponentDto project) {
    assertThat(selectProjectPermissionGroups(project, UserRole.ADMIN)).containsExactly(group1.getName());
    assertThat(selectProjectPermissionGroups(project, UserRole.USER)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.ADMIN)).isEmpty();
}

```

```

    assertThat(selectProjectPermissionUsers(project, UserRole.CODEVIEWER)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.ISSUE_ADMIN)).containsExactly(user2.getId());
}

private void assertTemplate1AppliedToPrivateProject(ComponentDto project) {
    assertThat(selectProjectPermissionGroups(project, UserRole.ADMIN)).containsExactly(group1.getName());
    assertThat(selectProjectPermissionGroups(project, UserRole.USER)).containsExactly(group2.getName());
    assertThat(selectProjectPermissionUsers(project, UserRole.ADMIN)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.CODEVIEWER)).containsExactly(user1.getId());
    assertThat(selectProjectPermissionUsers(project, UserRole.ISSUE_ADMIN)).containsExactly(user2.getId());
}

private void assertNoPermissionOnProject(ComponentDto project) {
    assertThat(selectProjectPermissionGroups(project, UserRole.ADMIN)).isEmpty();
    assertThat(selectProjectPermissionGroups(project, UserRole.CODEVIEWER)).isEmpty();
    assertThat(selectProjectPermissionGroups(project, UserRole.ISSUE_ADMIN)).isEmpty();
    assertThat(selectProjectPermissionGroups(project, UserRole.USER)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.ADMIN)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.CODEVIEWER)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.ISSUE_ADMIN)).isEmpty();
    assertThat(selectProjectPermissionUsers(project, UserRole.USER)).isEmpty();
}

private void addUserToTemplate(UserDto user, PermissionTemplateDto permissionTemplate, String permission) {
    db.getClient().permissionTemplateDao().insertUserPermission(db.getSession(), permissionTemplate.getId(),
user.getId(), permission);
    db.commit();
}

private void addGroupToTemplate(GroupDto group, PermissionTemplateDto permissionTemplate, String
permission) {
    db.getClient().permissionTemplateDao().insertGroupPermission(db.getSession(), permissionTemplate.getId(),
group.getId(), permission);
    db.commit();
}

private List<String> selectProjectPermissionGroups(ComponentDto project, String permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(project.getOrganizationUuid()).setPermission(permission).setComp
onentUuid(project.uuid()).build();
    return db.getClient().groupPermissionDao().selectGroupNamesByQuery(db.getSession(), query);
}

private List<Integer> selectProjectPermissionUsers(ComponentDto project, String permission) {
    PermissionQuery query =
PermissionQuery.builder().setOrganizationUuid(project.getOrganizationUuid()).setPermission(permission).setComp
onentUuid(project.uuid()).build();
    return db.getClient().userPermissionDao().selectUserIdsByQuery(db.getSession(), query);
}

```

```

}
}
// Jest Snapshot v1, https://goo.gl/fbAQLP

exports[`should display the license field 1`] = `
<Tooltip
  overlay="SonarSource license"
>
  <li
    className="little-spacer-bottom marketplace-plugin-license"
  >
    <FormattedMessage
      defaultMessage="marketplace.licensed_under_x"
      id="marketplace.licensed_under_x"
      values={
        Object {
          "license": <span
            className="js-plugin-license"
          >
            SonarSource license
          </span>,
        }
      }
    />
  </li>
</Tooltip>
`;
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission;

```



```

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

public class UserPermissionDto {

    private String organizationUuid;
    private String permission;
    private int userId;
    private Long componentId;

    public UserPermissionDto() {
        // used by MyBatis
    }

    public UserPermissionDto(String organizationUuid, String permission, int userId, @Nullable Long componentId) {
        this.organizationUuid = organizationUuid;
        this.permission = permission;
        this.userId = userId;
        this.componentId = componentId;
    }

    public String getPermission() {
        return permission;
    }

    public int getUserId() {
        return userId;
    }

    public String getOrganizationUuid() {
        return organizationUuid;
    }

    /**
     * @return { @code null} if it's a global permission, else return the project id.
     */
    @CheckForNull
    public Long getComponentId() {
        return componentId;
    }

    @Override
    public String toString() {
        StringBuilder sb = new StringBuilder("UserPermissionDto{");
        sb.append("permission=").append(permission).append("\");
        sb.append(", userId=").append(userId);
        sb.append(", organizationUuid=").append(organizationUuid);
        sb.append(", componentId=").append(componentId);
    }
}

```

```

    sb.append('}');
    return sb.toString();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Date;
import javax.annotation.Nullable;
import org.junit.Before;
import org.junit.Test;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.web.UserRole;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.component.ResourceTypesRule;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateCharacteristicDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.i18n.I18nRule;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;
import org.sonar.server.ws.WsActionTester;
import org.sonarqube.ws.Permissions;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;

```

```

import static org.sonar.core.util.Uuids.UUID_EXAMPLE_01;
import static org.sonar.core.util.Uuids.UUID_EXAMPLE_02;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;
import static org.sonar.test.JsonAssert.assertJson;

public class SearchTemplatesActionTest extends BasePermissionWsTest<SearchTemplatesAction> {

    private I18nRule i18n = new I18nRule();
    private DbClient dbClient = db.getDbClient();
    private DbSession dbSession = db.getSession();
    private ResourceTypesRule resourceTypesWithViews = new
ResourceTypesRule().setRootQualifiers(Qualifiers.PROJECT, Qualifiers.VIEW);
    private ResourceTypesRule resourceTypesWithoutViews = new
ResourceTypesRule().setRootQualifiers(Qualifiers.PROJECT);

    private WsActionTester underTestWithoutViews;

    @Override
    protected SearchTemplatesAction buildWsAction() {
        DefaultTemplatesResolver defaultTemplatesResolverWithViews = new
DefaultTemplatesResolverImpl(resourceTypesWithViews);
        SearchTemplatesAction searchTemplatesAction = new SearchTemplatesAction(dbClient, userSession, i18n,
newPermissionWsSupport(), defaultTemplatesResolverWithViews);
        return searchTemplatesAction;
    }

    @Before
    public void setUp() {
        DefaultTemplatesResolver defaultTemplatesResolverWithViews = new
DefaultTemplatesResolverImpl(resourceTypesWithoutViews);
        underTestWithoutViews = new WsActionTester(new SearchTemplatesAction(dbClient, userSession, i18n,
newPermissionWsSupport(), defaultTemplatesResolverWithViews));
        i18n.setProjectPermissions();
        userSession.logIn().addPermission(ADMINISTER, db.getDefaultOrganization());
    }

    @Test
    public void search_project_permissions() {
        OrganizationDto organization = db.getDefaultOrganization();
        PermissionTemplateDto projectTemplate = insertProjectTemplate(organization);
        PermissionTemplateDto viewsTemplate = insertViewsTemplate(organization);

        UserDto user1 = db.users().insertUser();
        UserDto user2 = db.users().insertUser();
        UserDto user3 = db.users().insertUser();

        GroupDto group1 = db.users().insertGroup(organization);

```

```

GroupDto group2 = db.users().insertGroup(organization);
GroupDto group3 = db.users().insertGroup(organization);

addUserToTemplate(projectTemplate.getId(), user1.getId(), UserRole.ISSUE_ADMIN);
addUserToTemplate(projectTemplate.getId(), user2.getId(), UserRole.ISSUE_ADMIN);
addUserToTemplate(projectTemplate.getId(), user3.getId(), UserRole.ISSUE_ADMIN);
addUserToTemplate(projectTemplate.getId(), user1.getId(), UserRole.CODEVIEWER);
addGroupToTemplate(projectTemplate.getId(), group1.getId(), UserRole.ADMIN);
addPermissionTemplateWithProjectCreator(projectTemplate.getId(), UserRole.ADMIN);

addUserToTemplate(viewsTemplate.getId(), user1.getId(), UserRole.USER);
addUserToTemplate(viewsTemplate.getId(), user2.getId(), UserRole.USER);
addGroupToTemplate(viewsTemplate.getId(), group1.getId(), UserRole.ISSUE_ADMIN);
addGroupToTemplate(viewsTemplate.getId(), group2.getId(), UserRole.ISSUE_ADMIN);
addGroupToTemplate(viewsTemplate.getId(), group3.getId(), UserRole.ISSUE_ADMIN);

db.organizations().setDefaultTemplates(projectTemplate, viewsTemplate);

String result = newRequest().execute().getInput();

assertJson(result)
    .withStrictArrayOrder()
    .isSimilarTo(getClass().getResource("search_templates-example.json"));
}

@Test
public void empty_result_with_views() {
    db.organizations().setDefaultTemplates(db.getDefaultOrganization(), "AU-Tpxb--iU5OvuD2FLy", "AU-TpxcA-iU5OvuD2FLz");
    String result = newRequest(wsTester).execute().getInput();

    assertJson(result)
        .withStrictArrayOrder()
        .ignoreFields("permissions")
        .isSimilarTo("{ " +
            " \"permissionTemplates\": []," +
            " \"defaultTemplates\": [" +
            " { " +
            "   \"templateId\": \"AU-Tpxb--iU5OvuD2FLy\", " +
            "   \"qualifier\": \"TRK\"" +
            " }," +
            " { " +
            "   \"templateId\": \"AU-TpxcA-iU5OvuD2FLz\", " +
            "   \"qualifier\": \"VW\"" +
            " }" +
            "]" +
            "}");
}

```

```

@Test
public void empty_result_without_views() {
    db.organizations().setDefaultTemplates(db.getDefaultOrganization(), "AU-Tpxb--iU5OvuD2FLy", "AU-TpxcA-
iU5OvuD2FLz");
    String result = newRequest(underTestWithoutViews).execute().getInput();

    assertJson(result)
        .withStrictArrayOrder()
        .ignoreFields("permissions")
        .isSimilarTo("{ " +
            " \"permissionTemplates\": []," +
            " \"defaultTemplates\": [" +
            " { " +
            "   \"templateId\": \"AU-Tpxb--iU5OvuD2FLy\", " +
            "   \"qualifier\": \"TRK\" " +
            " } " +
            " ] " +
            "}");
}

```

```

@Test
public void search_by_name_in_default_organization() {
    db.organizations().setDefaultTemplates(db.permissionTemplates().insertTemplate(db.getDefaultOrganization(),
null);
    insertProjectTemplate(db.getDefaultOrganization());
    insertViewsTemplate(db.getDefaultOrganization());

    String result = newRequest(wsTester)
        .setParam(TEXT_QUERY, "views")
        .execute()
        .getInput();

    assertThat(result).contains("Default template for Views")
        .doesNotContain("projects")
        .doesNotContain("developers");
}

```

```

@Test
public void search_in_organization() {
    OrganizationDto org = db.organizations().insert();
    PermissionTemplateDto projectDefaultTemplate = db.permissionTemplates().insertTemplate(org);
    db.organizations().setDefaultTemplates(projectDefaultTemplate, null);
    PermissionTemplateDto templateInOrg = insertProjectTemplate(org);
    insertProjectTemplate(db.getDefaultOrganization());
    db.commit();
    userSession.addPermission(ADMINISTER, org);
}

```

```

Permissions.SearchTemplatesWsResponse result = newRequest(underTestWithoutViews)
    .setParam("organization", org.getKey())
    .executeProtobuf(Permissions.SearchTemplatesWsResponse.class);

assertThat(result.getPermissionTemplatesCount()).isEqualTo(2);
assertThat(result.getPermissionTemplatesList())
    .extracting(Permissions.PermissionTemplate::getId)
    .containsOnly(projectDefaultTemplate.getUuid(), templateInOrg.getUuid());
}

@Test
public void fail_if_not_logged_in() {
    expectedException.expect(UnauthorizedException.class);
    userSession.anonymous();

    newRequest().execute();
}

@Test
public void display_all_project_permissions() {
    db.organizations().setDefaultTemplates(db.permissionTemplates().insertTemplate(db.getDefaultOrganization(),
    null));

    String result = newRequest().execute().getInput();

    assertJson(result)
        .withStrictArrayOrder()
        .ignoreFields("defaultTemplates", "permissionTemplates")
        .isSimilarTo(
            "{" +
            "  \"permissions\": [" +
            "    {" +
            "      \"key\": \"admin\", " +
            "      \"name\": \"Administer\", " +
            "      \"description\": \"Ability to access project settings and perform administration tasks. (Users will also need \\\"Browse\\\" permission)\"" +
            "    }, " +
            "    {" +
            "      \"key\": \"codeviewer\", " +
            "      \"name\": \"See Source Code\", " +
            "      \"description\": \"Ability to view the project's source code. (Users will also need \\\"Browse\\\" permission)\"" +
            "    }, " +
            "    {" +
            "      \"key\": \"issueadmin\", " +
            "      \"name\": \"Administer Issues\", " +
            "      \"description\": \"Grants the permission to perform advanced editing on issues: marking an issue False Positive / Won't Fix or changing an Issue's severity. (Users will also need \\\"Browse\\\"

```

```

permission)\"""
    +
    "  }," +
    "  {" +
    "    \"key\": \"scan\"," +
    "    \"name\": \"Execute Analysis\"," +
    "    \"description\": \"Ability to execute analyses, and to get all settings required to perform the analysis, even
the secured ones like the scm account password, the jira account password, and so on.\"\"\"
    +
    "  }," +
    "  {" +
    "    \"key\": \"user\"," +
    "    \"name\": \"Browse\"," +
    "    \"description\": \"Ability to access a project, browse its measures, and create/edit issues for it.\"\"\" +
    "  }" +
    " ]" +
    "});
}

```

```

private PermissionTemplateDto insertProjectTemplate(OrganizationDto org) {
    return insertTemplate(new PermissionTemplateDto()
        .setOrganizationUuid(org.getUuid())
        .setUuid(UUID_EXAMPLE_01)
        .setName("Default template for Projects")
        .setDescription("Template for new projects")
        .setKeyPattern(null)
        .setCreatedAt(new Date(1_000_000_000_000L))
        .setUpdatedAt(new Date(1_000_000_000_000L)));
}

```

```

private PermissionTemplateDto insertViewsTemplate(OrganizationDto organization) {
    return insertTemplate(new PermissionTemplateDto()
        .setOrganizationUuid(organization.getUuid())
        .setUuid(UUID_EXAMPLE_02)
        .setName("Default template for Views")
        .setDescription("Template for new views")
        .setKeyPattern(".*sonar.views.*")
        .setCreatedAt(new Date(1_000_000_000_000L))
        .setUpdatedAt(new Date(1_100_000_000_000L)));
}

```

```

private PermissionTemplateDto insertTemplate(PermissionTemplateDto template) {
    PermissionTemplateDto insert = dbClient.permissionTemplateDao().insert(db.getSession(), template);
    db.getSession().commit();
    return insert;
}

```

```

private void addGroupToTemplate(long templateId, @Nullable Integer groupId, String permission) {

```

```

dbClient.permissionTemplateDao().insertGroupPermission(db.getSession(), templateId, groupId, permission);
db.getSession().commit();
}

private void addUserToTemplate(long templateId, int userId, String permission) {
    dbClient.permissionTemplateDao().insertUserPermission(db.getSession(), templateId, userId, permission);
    db.getSession().commit();
}

private void addPermissionTemplateWithProjectCreator(long templateId, String permission) {
    dbClient.permissionTemplateCharacteristicDao().insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setWithProjectCreator(true)
        .setTemplateId(templateId)
        .setPermission(permission)
        .setCreatedAt(1_000_000_000L)
        .setUpdatedAt(2_000_000_000L));
    db.commit();
}

private TestRequest newRequest(WsActionTester underTest) {
    return underTest.newRequest().setMethod("POST");
}
}
{
    "paging": {
        "pageIndex": 1,
        "pageSize": 25,
        "total": 3
    },
    "projects": [
        {
            "id": "0bd7b1e7-91d6-439e-a607-4a3a9aad3c6a",
            "key": "net.java.openjdk:jdk7",
            "name": "JDK 7",
            "qualifier": "TRK",
            "permissions": [
                {
                    "key": "admin",
                    "usersCount": 3,
                    "groupsCount": 4
                },
                {
                    "key": "issueadmin",
                    "usersCount": 1,
                    "groupsCount": 0
                }
            ]
        }
    ],
},

```



```

{
  "id": "ce4c03d6-430f-40a9-b777-ad877c00aa4d",
  "key": "clang",
  "name": "Clang",
  "qualifier": "TRK",
  "permissions": [
    {
      "key": "issueadmin",
      "usersCount": 1,
      "groupsCount": 0
    }
  ]
},
{
  "id": "752d8bfd-420c-4a83-a4e5-8ab19b13c8fc",
  "key": "Java",
  "name": "Java",
  "qualifier": "VW",
  "permissions": [
    {
      "key": "admin",
      "usersCount": 0,
      "groupsCount": 1
    },
    {
      "key": "issueadmin",
      "usersCount": 1,
      "groupsCount": 0
    }
  ]
}
],
"permissions": [
  {
    "key": "user",
    "name": "Browse",
    "description": "Ability to access a project, browse its measures, and create/edit issues for it."
  },
  {
    "key": "admin",
    "name": "Administer",
    "description": "Ability to access project settings and perform administration tasks. (Users will also need
  \"Browse\" permission)"
  },
  {
    "key": "issueadmin",
    "name": "Administer Issues",
    "description": "Grants the permission to perform advanced editing on issues: marking an issue False Positive /

```

```

    Won't Fix or changing an Issue's severity. (Users will also need \"Browse\" permission)
  },
  {
    "key": "codeviewer",
    "name": "See Source Code",
    "description": "Ability to view the project's source code. (Users will also need \"Browse\" permission)"
  }
]
}

```

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<!DOCTYPE mapper PUBLIC "-//mybatis.org/DTD Mapper 3.0//EN" "mybatis-3-mapper.dtd">
```

```
<mapper namespace="org.sonar.db.permission.AuthorizationMapper">
```

```
<select id="selectOrganizationPermissions" parameterType="map" resultType="string">
```

```

  select gr.role
  from group_roles gr
  inner join groups_users gu on gr.group_id=gu.group_id
  where
  gr.organization_uuid=#{organizationUuid,jdbcType=VARCHAR} and
  gr.resource_id is null and
  gu.user_id=#{userId,jdbcType=INTEGER}

```

```
union
```

```

  select gr.role
  from group_roles gr
  where
  gr.organization_uuid=#{organizationUuid,jdbcType=VARCHAR} and
  gr.group_id is null and
  gr.resource_id is null

```

```
union
```

```

  select ur.role
  from user_roles ur
  where
  ur.organization_uuid=#{organizationUuid,jdbcType=VARCHAR} and
  ur.user_id=#{userId,jdbcType=INTEGER}
  and ur.resource_id is null

```

```
</select>
```

```
<select id="selectOrganizationPermissionsOfAnonymous" parameterType="map" resultType="string">
```

```

  select gr.role
  from group_roles gr
  where
  gr.organization_uuid=#{organizationUuid,jdbcType=VARCHAR} and
  gr.resource_id is null and

```

```
gr.group_id is null
</select>
```

```
<select id="countUsersWithGlobalPermissionExcludingGroup" parameterType="map" resultType="int">
select count(1) from
(
select gu.user_id
from groups_users gu
inner join group_roles gr on gr.group_id = gu.group_id
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.role = #{permission,jdbcType=VARCHAR} and
gr.resource_id is null and
gr.group_id is not null and
gr.group_id != #{excludedGroupId,jdbcType=INTEGER}

union

select ur.user_id
from user_roles ur
where
ur.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
ur.resource_id is null and
ur.role = #{permission,jdbcType=VARCHAR}
) remaining
</select>
```

```
<select id="countUsersWithGlobalPermissionExcludingUser" parameterType="map" resultType="int">
select count(1) from
(
select gu.user_id
from groups_users gu
inner join group_roles gr on gr.group_id = gu.group_id
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.role = #{permission,jdbcType=VARCHAR} and
gr.resource_id is null and
gr.group_id is not null and
gu.user_id != #{excludedUserId,jdbcType=INTEGER}

union

select ur.user_id
from user_roles ur
where
ur.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
ur.resource_id is null and
ur.role = #{permission,jdbcType=VARCHAR} and
```

```
ur.user_id != #{excludedUserId,jdbcType=INTEGER}
) remaining
</select>
```

```
<select id="countUsersWithGlobalPermissionExcludingGroupMember" parameterType="map" resultType="int">
select count(1) from
(
select gu.user_id
from groups_users gu
inner join group_roles gr on gr.group_id = gu.group_id
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.role = #{permission,jdbcType=VARCHAR} and
gr.resource_id is null and
gr.group_id is not null and
(gu.group_id != #{groupId,jdbcType=INTEGER} or gu.user_id != #{userId,jdbcType=INTEGER})
```

```
union
```

```
select ur.user_id
from user_roles ur
where
ur.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
ur.resource_id is null and
ur.role = #{permission,jdbcType=VARCHAR}
) remaining
</select>
```

```
<select id="countUsersWithGlobalPermissionExcludingUserPermission" parameterType="map" resultType="int">
select count(1) from
(
select gu.user_id
from groups_users gu
inner join group_roles gr on gr.group_id = gu.group_id
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.role = #{permission,jdbcType=VARCHAR} and
gr.resource_id is null and
gr.group_id is not null
```

```
union
```

```
select ur.user_id
from user_roles ur
where
ur.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
ur.resource_id is null and
ur.role = #{permission,jdbcType=VARCHAR} and
```

```

ur.user_id != #{userId,jdbcType=INTEGER}
) remaining
</select>

<select id="selectOrganizationUuidsOfUserWithGlobalPermission" parameterType="map" resultType="String">
select gr.organization_uuid
from group_roles gr
inner join groups_users gu on gr.group_id = gu.group_id
where
gr.role = #{permission,jdbcType=VARCHAR} and
gr.resource_id is null and
gr.group_id is not null and
gu.user_id = #{userId,jdbcType=INTEGER}

union

select ur.organization_uuid
from user_roles ur
where
ur.resource_id is null and
ur.role = #{permission,jdbcType=VARCHAR} and
ur.user_id = #{userId,jdbcType=INTEGER}
</select>

<select id="keepAuthorizedProjectIdsForUser" parameterType="map" resultType="long">
select
gr.resource_id
from
group_roles gr
where
gr.role=#{role,jdbcType=VARCHAR}
and (
gr.group_id is null
or exists (
select
1
from
groups_users gu
where
gu.user_id = #{userId, jdbcType=INTEGER}
and gr.group_id = gu.group_id
)
)
and <foreach collection="componentIds" open="(" close=")" item="element" index="index" separator=" or ">
gr.resource_id=#{element,jdbcType=BIGINT}
</foreach>

union

```

```

select
  p.id
from
  user_roles ur
inner join projects p on
  p.id = ur.resource_id
where
  ur.role=#{role,jdbcType=VARCHAR}
  and ur.user_id=#{userId,jdbcType=INTEGER}
  and <foreach collection="componentIds" open="(" close=")" item="element" index="index" separator=" or ">
    p.id=#{element,jdbcType=BIGINT}
  </foreach>

union

<include refid="sqlSelectPublicProjectsIfRole"/>
</select>

<select id="keepAuthorizedProjectIdsForAnonymous" parameterType="map" resultType="long">
select
  gr.resource_id
from
  group_roles gr
where
  gr.role=#{role,jdbcType=VARCHAR}
  and gr.group_id is null
  and <foreach collection="componentIds" open="(" close=")" item="element" index="index" separator=" or ">
    gr.resource_id=#{element,jdbcType=BIGINT}
  </foreach>

union

<include refid="sqlSelectPublicProjectsIfRole"/>
</select>

<sql id="sqlSelectPublicProjectsIfRole">
select
  p.id
from
  projects p
where
  <foreach collection="componentIds" open="(" close=")" item="element" index="index" separator=" or ">
    p.id=#{element,jdbcType=BIGINT}
  </foreach>
  and p.private = ${_false}
  and #{role,jdbcType=VARCHAR} in ('user','codeviewer')
</sql>

```

```

<select id="keepAuthorizedProjectUuidsForUser" parameterType="map" resultType="String">
  select p.uuid
  from projects p
  inner join group_roles gr on p.id = gr.resource_id
  where
    gr.role = #{permission,jdbcType=VARCHAR}
    and (gr.group_id is null or exists (
      select 1 from groups_users gu
      where
        gu.user_id = #{userId, jdbcType=INTEGER}
        and gr.group_id = gu.group_id)
    )
    and p.uuid in <foreach collection="projectUuids" open="(" close=")" item="projectUuid" index="index"
separator=",">#{projectUuid,jdbcType=VARCHAR}</foreach>

```

```

union

```

```

  select p.uuid
  from projects p
  inner join user_roles ur on p.id = ur.resource_id
  where
    ur.role=#{permission,jdbcType=VARCHAR}
    and ur.user_id=#{userId,jdbcType=INTEGER}
    and p.uuid in <foreach collection="projectUuids" open="(" close=")" item="projectUuid" index="index"
separator=",">#{projectUuid,jdbcType=VARCHAR}</foreach>

```

```

<if test="permission == 'user' or permission == 'codeviewer'">

```

```

  union

```

```

  select p.uuid
  from projects p
  where
    p.uuid in <foreach collection="projectUuids" open="(" close=")" item="projectUuid" index="index"
separator=",">#{projectUuid,jdbcType=VARCHAR}</foreach>
    and p.private = ${_false}

```

```

</if>

```

```

</select>

```

```

<select id="keepAuthorizedProjectUuidsForAnonymous" parameterType="map" resultType="String">
  select p.uuid
  from projects p
  inner join group_roles gr on p.id = gr.resource_id
  where
    gr.role=#{permission,jdbcType=VARCHAR}
    and gr.group_id is null
    and p.uuid in <foreach collection="projectUuids" open="(" close=")" item="projectUuid" index="index"
separator=",">#{projectUuid,jdbcType=VARCHAR}</foreach>

```

```

<if test="permission == 'user' or permission == 'codeviewer'">
  union

  select p.uuid
  from projects p
  where
  p.uuid in <foreach collection="projectUuids" open="(" close=")" item="projectUuid" index="index"
separator=",">#{projectUuid,jdbcType=VARCHAR}</foreach>
  and p.private = ${_false}
</if>
</select>

```

```

<select id="keepAuthorizedUsersForRoleAndProject" parameterType="map" resultType="int">
  select
  gu.user_id
  from
  groups_users gu
  inner join group_roles gr on
  gr.group_id=gu.group_id
  where
  gr.resource_id=#{componentId,jdbcType=BIGINT}
  and gr.role=#{role,jdbcType=VARCHAR}
  and gu.user_id in
  <foreach collection="userIds" open="(" close=")" item="id" separator=",">
  #{id,jdbcType=BIGINT}
</foreach>

```

```

union

```

```

select
  ur.user_id
  from
  user_roles ur
  where
  ur.resource_id=#{componentId,jdbcType=BIGINT}
  and ur.role=#{role,jdbcType=VARCHAR}
  and ur.user_id IN
  <foreach collection="userIds" open="(" close=")" item="id" separator=",">
  #{id,jdbcType=BIGINT}
</foreach>

```

```

union

```

```

select
  u.id
  from
  users u

```



```

where
  u.id in
    <foreach collection="userIds" open="(" close=")" item="id" separator=",">
      #{id,jdbcType=BIGINT}
    </foreach>
  and exists (
    select
      1
    from
      projects p
    where
      p.id =#{componentId,jdbcType=BIGINT}
      and p.private = ${_false}
      and #{role,jdbcType=VARCHAR} in ('user','codeviewer')
    )
</select>

<select id="selectProjectPermissions" parameterType="map" resultType="String">
  select ur.role
  from user_roles ur
  inner join projects p on p.id = ur.resource_id
  where
    p.uuid = #{projectUuid,jdbcType=VARCHAR} and
    p.organization_uuid = ur.organization_uuid and
    ur.user_id = #{userId,jdbcType=BIGINT}

  union

  select gr.role
  from group_roles gr
  inner join groups_users gu on gr.group_id = gu.group_id
  inner join projects p on p.id = gr.resource_id
  where
    p.uuid = #{projectUuid,jdbcType=VARCHAR} and
    p.organization_uuid = gr.organization_uuid and
    gu.user_id = #{userId,jdbcType=BIGINT}

  union

  <include refid="sql_selectProjectPermissionsOfAnonymous"/>
</select>

<select id="selectProjectPermissionsOfAnonymous" parameterType="map" resultType="String">
  <include refid="sql_selectProjectPermissionsOfAnonymous"/>
</select>

<sql id="sql_selectProjectPermissionsOfAnonymous">
  select

```

```

    gr.role
  from
    group_roles gr
  inner join projects p on
    p.id = gr.resource_id
  where
    p.uuid = #{projectUuid,jdbcType=VARCHAR}
    and p.organization_uuid = gr.organization_uuid
    and gr.group_id is null
</sql>

<select id="selectLoginsWithGlobalPermission" parameterType="map" resultType="String">
  select u.login
  from user_roles ur
  inner join users u on u.id=ur.user_id
  where
    ur.role=#{permission,jdbcType=VARCHAR}
    and ur.resource_id is null

  union

  select u.login
  from group_roles gr
  inner join groups_users gu on gr.group_id = gu.group_id
  inner join users u on u.id=gu.user_id
  where
    gr.role = #{permission,jdbcType=VARCHAR} and
    gr.resource_id is null and
    gr.group_id is not null
</select>

<select id="keepAuthorizedLoginsOnProject" parameterType="map" resultType="String">
  SELECT u.login
  FROM users u
  INNER JOIN user_roles ur ON ur.user_id = u.id
  INNER JOIN projects p ON p.kee = #{projectKey,jdbcType=VARCHAR}
  WHERE
    ur.organization_uuid = p.organization_uuid
    AND ur.resource_id = p.id
    AND ur.role = #{permission,jdbcType=VARCHAR}
    AND u.login IN <foreach collection="logins" open="(" close=")" item="login"
separator=",">#{login}</foreach>

  UNION

  SELECT u.login
  FROM users u
  INNER JOIN projects p ON p.kee = #{projectKey,jdbcType=VARCHAR}

```

```

INNER JOIN group_roles gr ON gr.organization_uuid = p.organization_uuid
INNER JOIN groups_users gu ON gr.group_id = gu.group_id
WHERE
    gu.user_id = u.id
    AND gr.role = #{permission,jdbcType=VARCHAR}
    AND u.login IN <foreach collection="logins" open="(" close=")" item="login"
separator=",">#{login}</foreach>

<if test="permission == 'user' or permission == 'codeviewer'">
    UNION

    SELECT u.login
    FROM users u
    INNER JOIN projects p ON p.kee = #{projectKey,jdbcType=VARCHAR}
    WHERE
        p.private = ${_false}
        AND u.login IN <foreach collection="logins" open="(" close=")" item="login"
separator=",">#{login}</foreach>
    </if>
</select>
</mapper>
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission.template;

import java.util.Date;

public class PermissionTemplateUserDto {
    private Long id;
    private Long templateId;
    private Integer userId;

```

```
private String permission;
private String userName;
private String userLogin;
private Date createdAt;
private Date updatedAt;

public Long getId() {
    return id;
}

public PermissionTemplateUserDto setId(Long id) {
    this.id = id;
    return this;
}

public Long getTemplateId() {
    return templateId;
}

public PermissionTemplateUserDto setTemplateId(Long templateId) {
    this.templateId = templateId;
    return this;
}

public Integer getUserId() {
    return userId;
}

public PermissionTemplateUserDto setUserId(Integer userId) {
    this.userId = userId;
    return this;
}

public String getUserName() {
    return userName;
}

public PermissionTemplateUserDto setUserName(String userName) {
    this.userName = userName;
    return this;
}

public String getUserLogin() {
    return userLogin;
}

public PermissionTemplateUserDto setUserLogin(String userLogin) {
    this.userLogin = userLogin;
}
```

```

    return this;
}

public String getPermission() {
    return permission;
}

public PermissionTemplateUserDto setPermission(String permission) {
    this.permission = permission;
    return this;
}

public Date getCreatedAt() {
    return createdAt;
}

public PermissionTemplateUserDto setCreatedAt(Date createdAt) {
    this.createdAt = createdAt;
    return this;
}

public Date getUpdatedAt() {
    return updatedAt;
}

public PermissionTemplateUserDto setUpdatedAt(Date updatedAt) {
    this.updatedAt = updatedAt;
    return this;
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```

```

*/
package org.sonar.server.permission.ws;

import com.google.common.collect.Multimap;
import com.google.common.collect.Ordering;
import com.google.common.collect.TreeMultimap;
import java.util.List;
import java.util.Optional;
import java.util.stream.Collectors;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.utils.Paging;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.UserPermissionDto;
import org.sonar.db.user.UserDto;
import org.sonar.server.issue.ws.AvatarResolver;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Permissions;
import org.sonarqube.ws.Permissions.UsersWsResponse;

import static com.google.common.base.Strings.emptyOrNull;
import static java.util.Collections.emptyList;
import static org.sonar.core.util.Protobuf.setNullable;
import static org.sonar.db.permission.PermissionQuery.DEFAULT_PAGE_SIZE;
import static org.sonar.db.permission.PermissionQuery.RESULTS_MAX_SIZE;
import static org.sonar.db.permission.PermissionQuery.SEARCH_QUERY_MIN_LENGTH;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateGlobalPermission;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateProjectPermission;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class UsersAction implements PermissionsWsAction {

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionWsSupport support;
    private final AvatarResolver avatarResolver;

```

```

public UsersAction(DbClient dbClient, UserSession userSession, PermissionWsSupport support, AvatarResolver
avatarResolver) {
    this.dbClient = dbClient;
    this.userSession = userSession;
    this.support = support;
    this.avatarResolver = avatarResolver;
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("users")
        .setSince("5.2")
        .setDescription("Lists the users with their permissions as individual users rather than through group
affiliation.<br>" +
            "This service defaults to global permissions, but can be limited to project permissions by providing project id or
project key.<br>" +
            "This service defaults to all users, but can be limited to users with a specific permission by providing the desired
permission.<br>" +
            "Requires one of the following permissions:" +
            "<ul>" +
            "<li>'Administer System'</li>" +
            "<li>'Administer' rights on the specified project</li>" +
            "</ul>")
        .addPagingParams(DEFAULT_PAGE_SIZE, RESULTS_MAX_SIZE)
        .setInternal(true)
        .setResponseExample(getClass().getResource("users-example.json"))
        .setHandler(this);

    action.createParam(Param.TEXT_QUERY)
        .setMinimumLength(SEARCH_QUERY_MIN_LENGTH)
        .setDescription("Limit search to user names that contain the supplied string. <br/>" +
            "When this parameter is not set, only users having at least one permission are returned.")
        .setExampleValue("eri");

    createOrganizationParameter(action).setSince("6.2");
    createPermissionParameter(action).setRequired(false);
    createProjectParameters(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        OrganizationDto org = support.findOrganization(dbSession, request.param(PARAM_ORGANIZATION));
        Optional<ProjectId> projectId = support.findProjectId(dbSession, request);
        checkProjectAdmin(userSession, org.getUuid(), projectId);

        PermissionQuery query = buildPermissionQuery(request, org, projectId);
    }
}

```

```

List<UserDto> users = findUsers(dbSession, query);
int total = dbClient.userPermissionDao().countUsersByQuery(dbSession, query);
List<UserPermissionDto> userPermissions = findUserPermissions(dbSession, org, users, projectId);
Paging paging =
Paging.forPageIndex(request.mandatoryParamAsInt(Param.PAGE)).withPageSize(query.getPageSize()).andTotal(to
tal);
UsersWsResponse usersWsResponse = buildResponse(users, userPermissions, paging);
writeProtobuf(usersWsResponse, request, response);
}
}

```

```

private static PermissionQuery buildPermissionQuery(Request request, OrganizationDto organization,
Optional<ProjectId> project) {
String textQuery = request.param(Param.TEXT_QUERY);
String permission = request.param(PARAM_PERMISSION);
PermissionQuery.Builder permissionQuery = PermissionQuery.builder()
.setOrganizationUuid(organization.getUuid())
.setPermission(permission)
.setPageIndex(request.mandatoryParamAsInt(Param.PAGE))
.setPageSize(request.mandatoryParamAsInt(Param.PAGE_SIZE))
.setSearchQuery(textQuery);
project.ifPresent(projectId -> permissionQuery.setComponentUuid(projectId.getUuid()));
if (permission != null) {
if (project.isPresent()) {
validateProjectPermission(permission);
} else {
validateGlobalPermission(permission);
}
}
if (textQuery == null) {
permissionQuery.withAtLeastOnePermission();
}
return permissionQuery.build();
}

```

```

private UsersWsResponse buildResponse(List<UserDto> users, List<UserPermissionDto> userPermissions, Paging
paging) {
Multimap<Integer, String> permissionsByUserId = TreeMultimap.create();
userPermissions.forEach(userPermission -> permissionsByUserId.put(userPermission.getUserId(),
userPermission.getPermission()));

```

```

UsersWsResponse.Builder response = UsersWsResponse.newBuilder();
users.forEach(user -> {
Permissions.User.Builder userResponse = response.addUsersBuilder()
.setLogin(user.getLogin())
.addAllPermissions(permissionsByUserId.get(user.getId()));
setNullable(user.getEmail(), userResponse::setEmail);
setNullable(emptyOrNull(user.getEmail()), u -> userResponse.setAvatar(avatarResolver.create(user)));
}

```



```

        setNullable(user.getName(), userResponse::setName);
    });

    response.getPagingBuilder()
        .setPageIndex(paging.pageIndex())
        .setPageSize(paging.pageSize())
        .setTotal(paging.total())
        .build();

    return response.build();
}

private List<UserDto> findUsers(DbSession dbSession, PermissionQuery query) {
    List<Integer> orderedIds = dbClient.userPermissionDao().selectUserIdsByQuery(dbSession, query);
    return
    Ordering.explicit(orderedIds).onResultOf(UserDto::getId).immutableSortedCopy(dbClient.userDao().selectByIds(d
    bSession, orderedIds));
}

private List<UserPermissionDto> findUserPermissions(DbSession dbSession, OrganizationDto org, List<UserDto>
users, Optional<ProjectId> project) {
    if (users.isEmpty()) {
        return emptyList();
    }
    List<Integer> userIds = users.stream().map(UserDto::getId).collect(Collectors.toList());
    PermissionQuery query = PermissionQuery.builder()
        .setOrganizationUuid(org.getUuid())
        .setComponentUuid(project.map(ProjectId::getUuid).orElse(null))
        .withAtLeastOnePermission()
        .build();
    return dbClient.userPermissionDao().selectUserPermissionsByQuery(dbSession, query, userIds);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
*/

```

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws;
```

```
import org.sonar.core.platform.Module;  
import org.sonar.server.permission.ws.template.AddGroupToTemplateAction;  
import org.sonar.server.permission.ws.template.AddProjectCreatorToTemplateAction;  
import org.sonar.server.permission.ws.template.AddUserToTemplateAction;  
import org.sonar.server.permission.ws.template.ApplyTemplateAction;  
import org.sonar.server.permission.ws.template.BulkApplyTemplateAction;  
import org.sonar.server.permission.ws.template.CreateTemplateAction;  
import org.sonar.server.permission.ws.template.DeleteTemplateAction;  
import org.sonar.server.permission.ws.template.RemoveGroupFromTemplateAction;  
import org.sonar.server.permission.ws.template.RemoveProjectCreatorFromTemplateAction;  
import org.sonar.server.permission.ws.template.RemoveUserFromTemplateAction;  
import org.sonar.server.permission.ws.template.SearchTemplatesAction;  
import org.sonar.server.permission.ws.template.SetDefaultTemplateAction;  
import org.sonar.server.permission.ws.template.TemplateGroupsAction;  
import org.sonar.server.permission.ws.template.TemplateUsersAction;  
import org.sonar.server.permission.ws.template.UpdateTemplateAction;
```

```
public class PermissionsWsModule extends Module {  
    @Override  
    protected void configureModule() {  
        add(  
            PermissionsWs.class,  
            // actions  
            AddGroupAction.class,  
            AddUserAction.class,  
            RemoveGroupAction.class,  
            RemoveUserAction.class,  
            UsersAction.class,  
            GroupsAction.class,  
            SearchGlobalPermissionsAction.class,  
            SearchProjectPermissionsAction.class,  
            RemoveUserFromTemplateAction.class,  
            AddUserToTemplateAction.class,  
            AddGroupToTemplateAction.class,  
            AddProjectCreatorToTemplateAction.class,  
            RemoveProjectCreatorFromTemplateAction.class,  
            RemoveGroupFromTemplateAction.class,  
            CreateTemplateAction.class,  
            UpdateTemplateAction.class,  
            DeleteTemplateAction.class,  
            ApplyTemplateAction.class,  
            SetDefaultTemplateAction.class,  
        );  
    }  
}
```

```

    SearchTemplatesAction.class,
    TemplateUsersAction.class,
    TemplateGroupsAction.class,
    BulkApplyTemplateAction.class,
    // utility classes
    PermissionWsSupport.class);
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import java.util.List;
import java.util.Locale;
import java.util.Optional;

import com.google.common.collect.Collections2;
import com.google.common.collect.Lists;
import com.google.common.collect.Table;
import com.google.common.collect.TreeBasedTable;
import org.sonar.api.i18n.I18n;
import org.sonar.api.resources.ResourceType;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.utils.Paging;
import org.sonar.core.permission.ProjectPermissions;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;

```

```

import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentQuery;
import org.sonar.db.permission.CountPerProjectPermission;
import org.sonar.server.permission.PermissionPrivilegeChecker;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Common;
import org.sonarqube.ws.Permissions.Permission;
import org.sonarqube.ws.Permissions.SearchProjectPermissionsWsResponse;
import org.sonarqube.ws.Permissions.SearchProjectPermissionsWsResponse.Project;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Collections.singletonList;
import static org.sonar.api.utils.Paging.forPageIndex;
import static org.sonar.server.permission.ws.PermissionRequestValidator.validateQualifier;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.permission.ws.ProjectWsRef.newOptionalWsProjectRef;
import static org.sonar.server.permission.ws.SearchProjectPermissionsData.newBuilder;
import static org.sonar.server.ws.WsParameterBuilder.createRootQualifierParameter;
import static org.sonar.server.ws.WsParameterBuilder.QualifierParameterContext.newQualifierParameterContext;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PROJECT_KEY;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;

public class SearchProjectPermissionsAction implements PermissionsWsAction {
    private static final String PROPERTY_PREFIX = "projects_role.";
    private static final String DESCRIPTION_SUFFIX = ".desc";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final I18n i18n;
    private final ResourceTypes resourceTypes;
    private final PermissionWsSupport wsSupport;
    private final String[] rootQualifiers;

    public SearchProjectPermissionsAction(DbClient dbClient, UserSession userSession, I18n i18n, ResourceTypes
resourceTypes,
    PermissionWsSupport wsSupport) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.i18n = i18n;
        this.resourceTypes = resourceTypes;
        this.wsSupport = wsSupport;
        this.rootQualifiers = Collections2.transform(resourceTypes.getRoots(), ResourceType::getQualifier).toArray(new
String[resourceTypes.getRoots().size()]);

```

```

}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("search_project_permissions")
        .setDescription("List project permissions. A project can be a technical project, a view or a developer.<br />" +
            "Requires one of the following permissions:" +
            "<ul>" +
            "<li>'Administer System'</li>" +
            "<li>'Administer' rights on the specified project</li>" +
            "</ul>")
        .setResponseExample(getClass().getResource("search_project_permissions-example.json"))
        .setSince("5.2")
        .setDeprecatedSince("6.5")
        .addPagingParams(25)
        .setHandler(this);

    action.createParam(Param.TEXT_QUERY)
        .setDescription("Limit search to: <ul>" +
            "<li>project names that contain the supplied string</li>" +
            "<li>project keys that are exactly the same as the supplied string</li>" +
            "</ul>")
        .setExampleValue("apac");
    createProjectParameters(action);
    createRootQualifierParameter(action, newQualifierParameterContext(i18n, resourceTypes))
        .setSince("5.3");
}

@Override
public void handle(Request wsRequest, Response wsResponse) throws Exception {
    SearchProjectPermissionsWsResponse searchProjectPermissionsWsResponse =
doHandle(toSearchProjectPermissionsWsRequest(wsRequest));
    writeProtobuf(searchProjectPermissionsWsResponse, wsRequest, wsResponse);
}

private SearchProjectPermissionsWsResponse doHandle(SearchProjectPermissionsRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        checkAuthorized(dbSession, request);
        validateQualifier(request.getQualifier(), resourceTypes);
        SearchProjectPermissionsData data = load(dbSession, request);
        return buildResponse(data);
    }
}

private static SearchProjectPermissionsRequest toSearchProjectPermissionsWsRequest(Request request) {
    return new SearchProjectPermissionsRequest()
        .setProjectId(request.param(PARAM_PROJECT_ID))
        .setProjectKey(request.param(PARAM_PROJECT_KEY))
}

```

```

        .setQualifier(request.param(PARAM_QUALIFIER))
        .setPage(request.mandatoryParamAsInt(Param.PAGE))
        .setPageSize(request.mandatoryParamAsInt(Param.PAGE_SIZE))
        .setQuery(request.param(Param.TEXT_QUERY));
    }

    private void checkAuthorized(DbSession dbSession, SearchProjectPermissionsRequest request) {
        com.google.common.base.Optional<ProjectWsRef> projectRef =
        newOptionalWsProjectRef(request.getProjectId(), request.getProjectKey());
        if (projectRef.isPresent()) {
            ComponentDto project = wsSupport.getRootComponentOrModule(dbSession, projectRef.get());
            PermissionPrivilegeChecker.checkProjectAdmin(userSession, project.getOrganizationUuid(), Optional.of(new
            ProjectId(project)));
        } else {
            userSession.checkLoggedIn().checkIsSystemAdministrator();
        }
    }

    private SearchProjectPermissionsWsResponse buildResponse(SearchProjectPermissionsData data) {
        SearchProjectPermissionsWsResponse.Builder response = SearchProjectPermissionsWsResponse.newBuilder();
        Permission.Builder permissionResponse = Permission.newBuilder();

        Project.Builder rootComponentBuilder = Project.newBuilder();
        for (ComponentDto rootComponent : data.rootComponents()) {
            rootComponentBuilder
                .clear()
                .setId(rootComponent.uuid())
                .setKey(rootComponent.getDbKey())
                .setQualifier(rootComponent.qualifier())
                .setName(rootComponent.name());
            for (String permission : data.permissions(rootComponent.getId())) {
                rootComponentBuilder.addPermissions(
                    permissionResponse
                        .clear()
                        .setKey(permission)
                        .setUsersCount(data.userCount(rootComponent.getId(), permission))
                        .setGroupsCount(data.groupCount(rootComponent.getId(), permission)));
            }
            response.addProjects(rootComponentBuilder);
        }

        for (String permissionKey : ProjectPermissions.ALL) {
            response.addPermissions(
                permissionResponse
                    .clear()
                    .setKey(permissionKey)
                    .setName(i18nName(permissionKey))
                    .setDescription(i18nDescriptionMessage(permissionKey)));
        }
    }

```

```

    }

    Paging paging = data.paging();
    response.setPaging(
        Common.Paging.newBuilder()
            .setPageIndex(paging.pageIndex())
            .setPageSize(paging.pageSize())
            .setTotal(paging.total()));

    return response.build();
}

private String i18nDescriptionMessage(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey + DESCRIPTION_SUFFIX, "");
}

private String i18nName(String permissionKey) {
    return i18n.message(Locale.ENGLISH, PROPERTY_PREFIX + permissionKey, permissionKey);
}

private SearchProjectPermissionsData load(DbSession dbSession, SearchProjectPermissionsRequest request) {
    SearchProjectPermissionsData.Builder data = newBuilder();
    int countRootComponents = countRootComponents(dbSession, request);
    List<ComponentDto> rootComponents = searchRootComponents(dbSession, request, paging(request,
countRootComponents));
    List<Long> rootComponentIds = Lists.transform(rootComponents, ComponentDto::getId);

    data.rootComponents(rootComponents)
        .paging(paging(request, countRootComponents))
        .userCountByProjectIdAndPermission(userCountByRootComponentIdAndPermission(dbSession,
rootComponentIds))
        .groupCountByProjectIdAndPermission(groupCountByRootComponentIdAndPermission(dbSession,
rootComponentIds));

    return data.build();
}

private static Paging paging(SearchProjectPermissionsRequest request, int total) {
    return forPageIndex(request.getPage())
        .withPageSize(request.getPageSize())
        .andTotal(total);
}

private int countRootComponents(DbSession dbSession, SearchProjectPermissionsRequest request) {
    return dbClient.componentDao().countByQuery(dbSession, toDbQuery(request));
}

private List<ComponentDto> searchRootComponents(DbSession dbSession, SearchProjectPermissionsRequest

```

```

request, Paging paging) {
    com.google.common.base.Optional<ProjectWsRef> project = newOptionalWsProjectRef(request.getProjectId(),
request.getProjectKey());

    if (project.isPresent()) {
        return singletonList(wsSupport.getRootComponentOrModule(dbSession, project.get()));
    }

    return dbClient.componentDao().selectByQuery(dbSession, toDbQuery(request), paging.offset(),
paging.pageSize());
}

private ComponentQuery toDbQuery(SearchProjectPermissionsRequest wsRequest) {
    return ComponentQuery.builder()
        .setQualifiers(qualifiers(wsRequest.getQualifier()))
        .setNameOrKeyQuery(wsRequest.getQuery())
        .build();
}

private String[] qualifiers(@Nullable String requestQualifier) {
    return requestQualifier == null
        ? rootQualifiers
        : (new String[] {requestQualifier});
}

private Table<Long, String, Integer> userCountByRootComponentIdAndPermission(DbSession dbSession,
List<Long> rootComponentIds) {
    final Table<Long, String, Integer> userCountByRootComponentIdAndPermission = TreeBasedTable.create();

    dbClient.userPermissionDao().countUsersByProjectPermission(dbSession, rootComponentIds).forEach(
        row -> userCountByRootComponentIdAndPermission.put(row.getComponentId(), row.getPermission(),
row.getCount()));

    return userCountByRootComponentIdAndPermission;
}

private Table<Long, String, Integer> groupCountByRootComponentIdAndPermission(DbSession dbSession,
List<Long> rootComponentIds) {
    final Table<Long, String, Integer> userCountByRootComponentIdAndPermission = TreeBasedTable.create();

    dbClient.groupPermissionDao().groupsCountByComponentIdAndPermission(dbSession, rootComponentIds,
context -> {
        CountPerProjectPermission row = (CountPerProjectPermission) context.getResultObject();
        userCountByRootComponentIdAndPermission.put(row.getComponentId(), row.getPermission(),
row.getCount());
    });

    return userCountByRootComponentIdAndPermission;
}

```



```

}

private static class SearchProjectPermissionsRequest {
    private String projectId;
    private String projectKey;
    private String qualifier;
    private Integer page;
    private Integer pageSize;
    private String query;

    @CheckForNull
    public String getProjectId() {
        return projectId;
    }

    public SearchProjectPermissionsRequest setProjectId(@Nullable String projectId) {
        this.projectId = projectId;
        return this;
    }

    @CheckForNull
    public String getProjectKey() {
        return projectKey;
    }

    public SearchProjectPermissionsRequest setProjectKey(@Nullable String projectKey) {
        this.projectKey = projectKey;
        return this;
    }

    @CheckForNull
    public Integer getPage() {
        return page;
    }

    public SearchProjectPermissionsRequest setPage(int page) {
        this.page = page;
        return this;
    }

    @CheckForNull
    public Integer getPageSize() {
        return pageSize;
    }

    public SearchProjectPermissionsRequest setPageSize(int pageSize) {
        this.pageSize = pageSize;
        return this;
    }
}

```

```

}

@CheckForNull
public String getQuery() {
    return query;
}

public SearchProjectPermissionsRequest setQuery(@Nullable String query) {
    this.query = query;
    return this;
}

@CheckForNull
public String getQualifier() {
    return qualifier;
}

public SearchProjectPermissionsRequest setQualifier(@Nullable String qualifier) {
    this.qualifier = qualifier;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import javax.annotation.Nullable;

public class GroupPermissionDto {

```

```

private String organizationUuid;
private Integer groupId;
private Long resourceId;
private String role;

public Integer getGroupId() {
    return groupId;
}

public String getOrganizationUuid() {
    return organizationUuid;
}

public GroupPermissionDto setOrganizationUuid(String s) {
    this.organizationUuid = s;
    return this;
}

/**
 * Null when Anyone
 */
public GroupPermissionDto setGroupId(@Nullable Integer groupId) {
    this.groupId = groupId;
    return this;
}

@Nullable
public Long getResourceId() {
    return resourceId;
}

public GroupPermissionDto setResourceId(@Nullable Long resourceId) {
    this.resourceId = resourceId;
    return this;
}

public String getRole() {
    return role;
}

public GroupPermissionDto setRole(String role) {
    this.role = role;
    return this;
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA

```

```
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

```
*/
```

```
package org.sonar.server.permission;
```

```
import javax.annotation.concurrent.Immutable;
```

```
import org.sonar.db.user.UserDto;
```

```
import static java.util.Objects.requireNonNull;
```

```
/**
```

```
* Reference a user by his technical (db) id or functional login.
```

```
* This is temporary class as long as services and DAOs do not
```

```
* use only technical id.
```

```
*/
```

```
@Immutable
```

```
public class UserId {
```

```
    private final int id;
```

```
    private final String login;
```

```
    public UserId(int userId, String login) {
```

```
        this.id = userId;
```

```
        this.login = requireNonNull(login);
```

```
    }
```

```
    public int getId() {
```

```
        return id;
```

```
    }
```

```
    public String getLogin() {
```

```
        return login;
```

```
    }
```

```
    public static UserId from(UserDto dto) {
```

```

    return new UserId(dto.getId(), dto.getLogin());
  }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
import * as React from 'react';
import { shallow } from 'enzyme';
import PluginLicense from '../PluginLicense';

it('should display the license field', () => {
  expect(shallow(<PluginLicense license="SonarSource license" />)).toMatchSnapshot();
});

it('should not display anything', () => {
  expect(shallow(<PluginLicense />).type()).toBeNull();
});
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *

```

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.db.permission.template;
```

```
import java.util.Date;
```

```
import javax.annotation.Nullable;
```

```
public class PermissionTemplateGroupDto {
```

```
    private Long id;
```

```
    private Long templateId;
```

```
    private Integer groupId;
```

```
    private String permission;
```

```
    private String groupName;
```

```
    private Date createdAt;
```

```
    private Date updatedAt;
```

```
    public Long getId() {
```

```
        return id;
```

```
    }
```

```
    public PermissionTemplateGroupDto setId(Long id) {
```

```
        this.id = id;
```

```
        return this;
```

```
    }
```

```
    public Long getTemplateId() {
```

```
        return templateId;
```

```
    }
```

```
    public PermissionTemplateGroupDto setTemplateId(Long templateId) {
```

```
        this.templateId = templateId;
```

```
        return this;
```

```
    }
```

```
    public Integer getGroupId() {
```

```
        return groupId;
```

```
    }
```

```
    public PermissionTemplateGroupDto setGroupId(@Nullable Integer groupId) {
```

```
        this.groupId = groupId;
```

```
        return this;
```

```
    }
```

```
    public String getPermission() {
```

```
        return permission;
```

```
    }
```

```

public PermissionTemplateGroupDto setPermission(String permission) {
    this.permission = permission;
    return this;
}

public String getGroupName() {
    return groupName;
}

public PermissionTemplateGroupDto setGroupName(String groupName) {
    this.groupName = groupName;
    return this;
}

public Date getCreatedAt() {
    return createdAt;
}

public PermissionTemplateGroupDto setCreatedAt(Date createdAt) {
    this.createdAt = createdAt;
    return this;
}

public Date getUpdatedAt() {
    return updatedAt;
}

public PermissionTemplateGroupDto setUpdatedAt(Date updatedAt) {
    this.updatedAt = updatedAt;
    return this;
}
}

```

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser

General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
- b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
- d) Do one of the following:

- 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

- 1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer

system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
- b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.server.permission.ws.template;

import javax.annotation.Nullable;

import org.junit.Test;

import org.sonar.api.server.ws.WebService;

import org.sonar.core.permission.GlobalPermissions;

import org.sonar.db.permission.template.PermissionTemplateDto;

import org.sonar.db.permission.template.PermissionTemplateUserDto;

import org.sonar.db.user.UserDto;

import org.sonar.server.exceptions.BadRequestException;

import org.sonar.server.exceptions.ForbiddenException;

import org.sonar.server.exceptions.NotFoundException;

import org.sonar.server.exceptions.UnauthorizedException;

import org.sonar.server.issue.ws.AvatarResolverImpl;

import org.sonar.server.permission.ws.BasePermissionWsTest;

import org.sonar.server.ws.TestRequest;

import org.sonarqube.ws.Permissions;

import static org.assertj.core.api.Assertions.assertThat;

import static org.sonar.api.web.UserRole.ADMIN;

import static org.sonar.api.web.UserRole.CODEVIEWER;

import static org.sonar.api.web.UserRole.ISSUE_ADMIN;

import static org.sonar.api.web.UserRole.USER;

```

import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateUserDto;
import static org.sonar.db.user.UserTesting.newUserDto;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class TemplateUsersActionTest extends BasePermissionWsTest<TemplateUsersAction> {

    @Override
    protected TemplateUsersAction buildWsAction() {
        return new TemplateUsersAction(db.getDbClient(), userSession, newPermissionWsSupport(), new
AvatarResolverImpl());
    }

    @Test
    public void search_for_users_with_response_example() {
        UserDto user1 =
insertUser(newUserDto().setLogin("admin").setName("Administrator").setEmail("admin@admin.com"));
        UserDto user2 = insertUser(newUserDto().setLogin("george.orwell").setName("George
Orwell").setEmail("george.orwell@1984.net"));

        PermissionTemplateDto template1 = addTemplateToDefaultOrganization();
        addUserToTemplate(newPermissionTemplateUser(CODEVIEWER, template1, user1));
        addUserToTemplate(newPermissionTemplateUser(CODEVIEWER, template1, user2));
        addUserToTemplate(newPermissionTemplateUser(ADMIN, template1, user2));
        loginAsAdmin(db.getDefaultOrganization());

        String result = newRequest(null, template1.getUuid()).execute().getInput();
        assertJson(result).isSimilarTo(getClass().getResource("template_users-example.json"));
    }

    @Test
    public void search_for_users_by_template_name() {
        loginAsAdmin(db.getDefaultOrganization());

        UserDto user1 = insertUser(newUserDto().setLogin("login-1").setName("name-1").setEmail("email-1"));
        UserDto user2 = insertUser(newUserDto().setLogin("login-2").setName("name-2").setEmail("email-2"));
        UserDto user3 = insertUser(newUserDto().setLogin("login-3").setName("name-3").setEmail("email-3"));

        PermissionTemplateDto template = addTemplateToDefaultOrganization();
        addUserToTemplate(newPermissionTemplateUser(USER, template, user1));
        addUserToTemplate(newPermissionTemplateUser(USER, template, user2));
        addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user1));
        addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user3));

        PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();

```

```

addUserToTemplate(newPermissionTemplateUser(USER, anotherTemplate, user1));

Permissions.UsersWsResponse response = newRequest(null, null)
    .setParam(PARAM_TEMPLATE_NAME, template.getName())
    .executeProtobuf(Permissions.UsersWsResponse.class);

assertThat(response.getUsersList()).extracting("login").containsExactly("login-1", "login-2", "login-3");
assertThat(response.getUsers(0).getPermissionsList()).containsOnly("issueadmin", "user");
assertThat(response.getUsers(1).getPermissionsList()).containsOnly("user");
assertThat(response.getUsers(2).getPermissionsList()).containsOnly("issueadmin");
}

@Test
public void search_using_text_query() {
    loginAsAdmin(db.getDefaultOrganization());

    UserDto user1 = insertUser(newUserDto().setLogin("login-1").setName("name-1").setEmail("email-1"));
    UserDto user2 = insertUser(newUserDto().setLogin("login-2").setName("name-2").setEmail("email-2"));
    UserDto user3 = insertUser(newUserDto().setLogin("login-3").setName("name-3").setEmail("email-3"));

    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, template, user1));
    addUserToTemplate(newPermissionTemplateUser(USER, template, user2));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user1));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user3));

    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, anotherTemplate, user1));

    Permissions.UsersWsResponse response = newRequest(null, null)
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .setParam(WebService.Param.TEXT_QUERY, "ame-1")
        .executeProtobuf(Permissions.UsersWsResponse.class);

    assertThat(response.getUsersList()).extracting("login").containsOnly("login-1");
}

@Test
public void search_using_permission() {
    UserDto user1 = insertUser(newUserDto().setLogin("login-1").setName("name-1").setEmail("email-1"));
    UserDto user2 = insertUser(newUserDto().setLogin("login-2").setName("name-2").setEmail("email-2"));
    UserDto user3 = insertUser(newUserDto().setLogin("login-3").setName("name-3").setEmail("email-3"));

    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, template, user1));
    addUserToTemplate(newPermissionTemplateUser(USER, template, user2));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user1));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user3));
}

```

```

PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
addUserToTemplate(newPermissionTemplateUser(USER, anotherTemplate, user1));

loginAsAdmin(db.getDefaultOrganization());
Permissions.UsersWsResponse response = newRequest(USER, template.getUuid())
    .executeProtobuf(Permissions.UsersWsResponse.class);
assertThat(response.getUsersList()).extracting("login").containsExactly("login-1", "login-2");
assertThat(response.getUsers(0).getPermissionsList()).containsOnly("issueadmin", "user");
assertThat(response.getUsers(1).getPermissionsList()).containsOnly("user");
}

@Test
public void search_with_pagination() {
    UserDto user1 = insertUser(newUserDto().setLogin("login-1").setName("name-1").setEmail("email-1"));
    UserDto user2 = insertUser(newUserDto().setLogin("login-2").setName("name-2").setEmail("email-2"));
    UserDto user3 = insertUser(newUserDto().setLogin("login-3").setName("name-3").setEmail("email-3"));

    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, template, user1));
    addUserToTemplate(newPermissionTemplateUser(USER, template, user2));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user1));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user3));

    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, anotherTemplate, user1));

    loginAsAdmin(db.getDefaultOrganization());
    Permissions.UsersWsResponse response = newRequest(USER, null)
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .setParam(WebService.Param.SELECTED, "all")
        .setParam(WebService.Param.PAGE, "2")
        .setParam(WebService.Param.PAGE_SIZE, "1")
        .executeProtobuf(Permissions.UsersWsResponse.class);

    assertThat(response.getUsersList()).extracting("login").containsOnly("login-2");
}

@Test
public void users_are_sorted_by_name() {
    UserDto user1 = insertUser(newUserDto().setLogin("login-2").setName("name-2"));
    UserDto user2 = insertUser(newUserDto().setLogin("login-3").setName("name-3"));
    UserDto user3 = insertUser(newUserDto().setLogin("login-1").setName("name-1"));

    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, template, user1));
    addUserToTemplate(newPermissionTemplateUser(USER, template, user2));
    addUserToTemplate(newPermissionTemplateUser(ISSUE_ADMIN, template, user3));
}

```

```

loginAsAdmin(db.getDefaultOrganization());
Permissions.UsersWsResponse response = newRequest(null, null)
    .setParam(PARAM_TEMPLATE_NAME, template.getName())
    .executeProtobuf(Permissions.UsersWsResponse.class);

assertThat(response.getUsersList()).extracting("login").containsExactly("login-1", "login-2", "login-3");
}

```

```

@Test
public void empty_result_when_no_user_on_template() {
    UserDto user = insertUser(newUserDto().setLogin("login-1").setName("name-1").setEmail("email-1"));
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
    addUserToTemplate(newPermissionTemplateUser(USER, anotherTemplate, user));

```

```

loginAsAdmin(db.getDefaultOrganization());
Permissions.UsersWsResponse response = newRequest(null, null)
    .setParam(PARAM_TEMPLATE_NAME, template.getName())
    .executeProtobuf(Permissions.UsersWsResponse.class);

assertThat(response.getUsersList()).isEmpty();
}

```

```

@Test
public void fail_if_not_a_project_permission() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(IllegalArgumentException.class);

    newRequest(GlobalPermissions.PROVISIONING, template.getUuid())
        .execute();
}

```

```

@Test
public void fail_if_no_template_param() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(null, null)
        .execute();
}

```

```

@Test
public void fail_if_template_does_not_exist() {
    loginAsAdmin(db.getDefaultOrganization());

```

```

    expectedException.expect(NotFoundException.class);

    newRequest(null, "unknown-template-uuid")
        .execute();
}

@Test
public void fail_if_template_uuid_and_name_provided() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest(null, template.getUuid())
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .execute();
}

@Test
public void fail_if_not_logged_in() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest(null, template.getUuid()).execute();
}

@Test
public void fail_if_insufficient_privileges() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    userSession.logIn().addPermission(SCAN, db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    newRequest(null, template.getUuid()).execute();
}

private UserDto insertUser(UserDto userDto) {
    db.users().insertUser(userDto);
    db.organizations().addMember(db.getDefaultOrganization(), userDto);
    return userDto;
}

private void addUserToTemplate(PermissionTemplateUserDto dto) {
    db.getClient().permissionTemplateDao().insertUserPermission(db.getSession(), dto.getTemplateId(),
        dto.getUserId(), dto.getPermission());
}

```



```

    db.commit();
}

private static PermissionTemplateUserDto newPermissionTemplateUser(String permission,
PermissionTemplateDto template, UserDto user) {
    return newPermissionTemplateUserDto()
        .setPermission(permission)
        .setTemplateId(template.getId())
        .setUserId(user.getId());
}

private TestRequest newRequest(@Nullable String permission, @Nullable String templateUuid) {
    TestRequest request = newRequest();
    if (permission != null) {
        request.setParam(PARAM_PERMISSION, permission);
    }
    if (templateUuid != null) {
        request.setParam(PARAM_TEMPLATE_ID, templateUuid);
    }
    return request;
}

}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import { shape, arrayOf, string, number, func } from 'prop-types';

export const PermissionType = shape({
    key: string.isRequired,
    name: string.isRequired,
    description: string.isRequired,

```

```

usersCount: number.isRequired,
groupsCount: number.isRequired
});

export const PermissionTemplateType = shape({
  id: string.isRequired,
  name: string.isRequired,
  description: string,
  permissions: arrayOf(PermissionType).isRequired,
  defaultFor: arrayOf(string).isRequired
});

export const CallbackType = func.isRequired;
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import java.util.ArrayList;
import java.util.Date;
import java.util.List;
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.junit.rules.ExpectedException;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDto;

```

```

import static com.google.common.primitives.Longs.asList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.tuple;
import static org.mockito.Mockito.mock;
import static org.mockito.Mockito.when;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateDto;
import static org.sonar.db.user.GroupTesting.newGroupDto;

public class PermissionTemplateDaoTest {

    private static final Date PAST = new Date(100_000_000_000L);
    private static final Date NOW = new Date(500_000_000_000L);

    @Rule
    public ExpectedException expectedException = ExpectedException.none();

    @Rule
    public DbTester db = DbTester.create();

    private System2 system2 = mock(System2.class);
    private DbSession dbSession = db.getSession();
    private PermissionTemplateDbTester templateDb = db.permissionTemplates();

    private PermissionTemplateDao underTest = new PermissionTemplateDao(system2);

    @Before
    public void setUp() throws Exception {
        when(system2.now()).thenReturn(NOW.getTime());
    }

    @Test
    public void should_create_permission_template() {
        PermissionTemplateDto permissionTemplate = underTest.insert(db.getSession(), newPermissionTemplateDto()
            .setUuid("ABCD")
            .setName("my template")
            .setDescription("my description")
            .setKeyPattern("myregex")
            .setOrganizationUuid("org")
            .setCreatedAt(PAST)
            .setUpdatedAt(NOW));
        db.commit();
    }
}

```

```

    assertThat(underTest.selectByUuid(db.getSession(), permissionTemplate.getUuid()))
        .extracting(PermissionTemplateDto::getUuid, PermissionTemplateDto::getName,
PermissionTemplateDto::getDescription, PermissionTemplateDto::getKeyPattern,
        PermissionTemplateDto::getOrganizationUuid, PermissionTemplateDto::getCreatedAt,
PermissionTemplateDto::getUpdatedAt)
        .containsOnly("ABCD", "my template", "my description", "myregexp", "org", PAST, NOW);
}

```

@Test

```

public void should_select_permission_template_by_uuid() {
    templateDb.insertTemplate(newPermissionTemplateDto()
        .setUuid("ABCD")
        .setName("my template")
        .setDescription("my description")
        .setKeyPattern("myregexp")
        .setOrganizationUuid("org"));

```

```

    assertThat(underTest.selectByUuid(db.getSession(), "ABCD"))
        .extracting(PermissionTemplateDto::getUuid, PermissionTemplateDto::getName,
PermissionTemplateDto::getDescription, PermissionTemplateDto::getKeyPattern,
        PermissionTemplateDto::getOrganizationUuid)
        .containsOnly("ABCD", "my template", "my description", "myregexp", "org");
}

```

@Test

```

public void selectAll_without_name_filtering() {
    templateDb.insertTemplate(newPermissionTemplateDto()
        .setUuid("tpl1")
        .setName("template1")
        .setDescription("description1")
        .setOrganizationUuid("org"));
    templateDb.insertTemplate(newPermissionTemplateDto()
        .setUuid("tpl2")
        .setName("template2")
        .setDescription("description2")
        .setOrganizationUuid("org"));
    templateDb.insertTemplate(newPermissionTemplateDto()
        .setUuid("tpl3")
        .setName("template3")
        .setDescription("description3")
        .setOrganizationUuid("org"));

```

```

    assertThat(underTest.selectAll(dbSession, "org", null))
        .extracting(PermissionTemplateDto::getUuid, PermissionTemplateDto::getName,
PermissionTemplateDto::getDescription)
        .containsOnly(
            tuple("tpl1", "template1", "description1"),
            tuple("tpl2", "template2", "description2"),

```

```

    tuple("tpl3", "template3", "description3"));
    assertThat(underTest.selectAll(dbSession, "missingOrg", null)).isEmpty();
}

@Test
public void selectAll_with_name_filtering() {
    PermissionTemplateDto t1InOrg1 =
templateDb.insertTemplate(newPermissionTemplateDto().setName("aBcDeF").setOrganizationUuid("org1"));
    PermissionTemplateDto t2InOrg1 =
templateDb.insertTemplate(newPermissionTemplateDto().setName("cdefgh").setOrganizationUuid("org1"));
    PermissionTemplateDto t3InOrg1 =
templateDb.insertTemplate(newPermissionTemplateDto().setName("hijkl").setOrganizationUuid("org2"));
    PermissionTemplateDto t4InOrg2 =
templateDb.insertTemplate(newPermissionTemplateDto().setName("cdefgh").setOrganizationUuid("org2"));

    assertThat(underTest.selectAll(dbSession, "org1",
"def")).extracting(PermissionTemplateDto::getId).containsExactly(t1InOrg1.getId(), t2InOrg1.getId());
    assertThat(underTest.selectAll(dbSession, "org1", "missing")).isEmpty();
}

@Test
public void should_update_permission_template() {
    PermissionTemplateDto permissionTemplateDto = templateDb.insertTemplate(newPermissionTemplateDto()
        .setUuid("ABCD")
        .setName("name")
        .setDescription("description")
        .setKeyPattern("regexp")
        .setOrganizationUuid("org")
        .setCreatedAt(PAST)
        .setUpdatedAt(PAST));

    underTest.update(dbSession, permissionTemplateDto
        .setName("new_name")
        .setDescription("new_description")
        .setKeyPattern("new_regexp")
        .setUpdatedAt(NOW)
        // Invariant fields, should not be updated
        .setUuid("new UUID")
        .setOrganizationUuid("new org")
        .setCreatedAt(NOW));
    db.commit();

    assertThat(underTest.selectByUuid(db.getSession(), "ABCD"))
        .extracting(PermissionTemplateDto::getUuid, PermissionTemplateDto::getName,
PermissionTemplateDto::getDescription, PermissionTemplateDto::getKeyPattern,
PermissionTemplateDto::getOrganizationUuid, PermissionTemplateDto::getCreatedAt,
PermissionTemplateDto::getUpdatedAt)
        .containsOnly("ABCD", "new_name", "new_description", "new_regexp", "org", PAST, NOW);
}

```

```

}

@Test
public void should_delete_permission_template() {
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    PermissionTemplateDto permissionTemplate1 = templateDb.insertTemplate(db.getDefaultOrganization());
    PermissionTemplateDto permissionTemplate2 = templateDb.insertTemplate(db.getDefaultOrganization());
    templateDb.addUserToTemplate(permissionTemplate1, user1, "user");
    templateDb.addUserToTemplate(permissionTemplate1, user2, "user");
    templateDb.addUserToTemplate(permissionTemplate1, user2, "admin");
    templateDb.addUserToTemplate(permissionTemplate2, user2, "admin");
    templateDb.addGroupToTemplate(permissionTemplate1, group1, "user");
    templateDb.addGroupToTemplate(permissionTemplate1, group2, "user");
    templateDb.addAnyoneToTemplate(permissionTemplate1, "admin");
    templateDb.addAnyoneToTemplate(permissionTemplate2, "admin");
    templateDb.addProjectCreatorToTemplate(permissionTemplate1.getId(), "user");
    templateDb.addProjectCreatorToTemplate(permissionTemplate2.getId(), "user");

    underTest.deleteById(dbSession, permissionTemplate1.getId());
    dbSession.commit();

    assertThat(underTest.selectAll(db.getSession(), db.getDefaultOrganization().getUuid(), null)
        .extracting(PermissionTemplateDto::getUuid)
        .containsOnly(permissionTemplate2.getUuid());
    assertThat(db.getClient().permissionTemplateDao().selectUserPermissionsByTemplateId(db.getSession(),
permissionTemplate1.getId()).isEmpty();
    assertThat(db.getClient().permissionTemplateDao().selectUserPermissionsByTemplateId(db.getSession(),
permissionTemplate2.getId()).hasSize(1);
    assertThat(db.getClient().permissionTemplateDao().selectGroupPermissionsByTemplateId(db.getSession(),
permissionTemplate1.getId()).isEmpty();
    assertThat(db.getClient().permissionTemplateDao().selectGroupPermissionsByTemplateId(db.getSession(),
permissionTemplate2.getId()).hasSize(1);
    assertThat(db.getClient().permissionTemplateCharacteristicDao().selectByTemplateIds(db.getSession(),
asList(permissionTemplate1.getId(), permissionTemplate2.getId())))
        .extracting(PermissionTemplateCharacteristicDto::getTemplateId)
        .containsOnly(permissionTemplate2.getId());
}

@Test
public void should_add_user_permission_to_template() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());
    UserDto user = db.users().insertUser();

    underTest.insertUserPermission(dbSession, permissionTemplate.getId(), user.getId(), "user");

```

```

    assertThat(db.getClient().permissionTemplateDao().selectUserPermissionsByTemplateId(db.getSession(),
permissionTemplate.getId()))
        .extracting(PermissionTemplateUserDto::getTemplateId, PermissionTemplateUserDto::getUserId,
PermissionTemplateUserDto::getPermission, PermissionTemplateUserDto::getCreatedAt,
PermissionTemplateUserDto::getUpdatedAt)
        .containsOnly(tuple(permissionTemplate.getId(), user.getId(), "user", NOW, NOW));
}

```

@Test

```

public void should_remove_user_permission_from_template() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    templateDb.addUserToTemplate(permissionTemplate, user1, "user");
    templateDb.addUserToTemplate(permissionTemplate, user1, "admin");
    templateDb.addUserToTemplate(permissionTemplate, user2, "user");

```

```

    underTest.deleteUserPermission(dbSession, permissionTemplate.getId(), user1.getId(), "user");

```

```

    assertThat(db.getClient().permissionTemplateDao().selectUserPermissionsByTemplateId(db.getSession(),
permissionTemplate.getId()))
        .extracting(PermissionTemplateUserDto::getUserId, PermissionTemplateUserDto::getPermission)
        .containsOnly(tuple(user1.getId(), "admin"), tuple(user2.getId(), "user"));
}

```

@Test

```

public void should_add_group_permission_to_template() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());
    GroupDto group = db.users().insertGroup();

```

```

    underTest.insertGroupPermission(dbSession, permissionTemplate.getId(), group.getId(), "user");
    dbSession.commit();

```

```

    assertThat(db.getClient().permissionTemplateDao().selectGroupPermissionsByTemplateId(db.getSession(),
permissionTemplate.getId()))
        .extracting(PermissionTemplateGroupDto::getTemplateId, PermissionTemplateGroupDto::getGroupId,
PermissionTemplateGroupDto::getPermission,
PermissionTemplateGroupDto::getCreatedAt,
PermissionTemplateGroupDto::getUpdatedAt)
        .containsOnly(tuple(permissionTemplate.getId(), group.getId(), "user", NOW, NOW));
}

```

@Test

```

public void remove_by_group() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    templateDb.addGroupToTemplate(permissionTemplate, group1, "user");

```

```

templateDb.addGroupToTemplate(permissionTemplate, group1, "admin");
templateDb.addGroupToTemplate(permissionTemplate, group2, "user");

underTest.deleteByGroup(db.getSession(), group1.getId());
db.getSession().commit();

assertThat(db.getClient().permissionTemplateDao().selectGroupPermissionsByTemplateId(db.getSession(),
permissionTemplate.getId()))
    .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getPermission)
    .containsOnly(tuple(group2.getId(), "user"));
}

@Test
public void should_add_group_permission_to_anyone() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());

    underTest.insertGroupPermission(dbSession, permissionTemplate.getId(), null, "user");
    dbSession.commit();

    assertThat(db.getClient().permissionTemplateDao().selectGroupPermissionsByTemplateId(db.getSession(),
permissionTemplate.getId()))
        .extracting(PermissionTemplateGroupDto::getTemplateId, PermissionTemplateGroupDto::getGroupId,
PermissionTemplateGroupDto::getGroupName,
            PermissionTemplateGroupDto::getPermission)
        .containsOnly(tuple(permissionTemplate.getId(), 0, "Anyone", "user"));
}

@Test
public void group_count_by_template_and_permission() {
    PermissionTemplateDto template1 = templateDb.insertTemplate();
    PermissionTemplateDto template2 = templateDb.insertTemplate();
    PermissionTemplateDto template3 = templateDb.insertTemplate();
    PermissionTemplateDto template4 = templateDb.insertTemplate();
    GroupDto group1 = db.users().insertGroup(new GroupDto());
    GroupDto group2 = db.users().insertGroup(new GroupDto());
    GroupDto group3 = db.users().insertGroup(new GroupDto());
    templateDb.addGroupToTemplate(template1.getId(), group1.getId(), CODEVIEWER);
    templateDb.addGroupToTemplate(template1.getId(), group2.getId(), CODEVIEWER);
    templateDb.addGroupToTemplate(template1.getId(), group3.getId(), CODEVIEWER);
    templateDb.addGroupToTemplate(template1.getId(), null, CODEVIEWER);
    templateDb.addGroupToTemplate(template1.getId(), group1.getId(), ADMIN);
    templateDb.addGroupToTemplate(template2.getId(), group1.getId(), ADMIN);
    templateDb.addGroupToTemplate(template4.getId(), group1.getId(), ISSUE_ADMIN);

    final List<CountByTemplateAndPermissionDto> result = new ArrayList<>();
    underTest.groupsCountByTemplateIdAndPermission(dbSession, asList(template1.getId(), template2.getId(),
template3.getId()),
        context -> result.add(context.getResultObject()));
}

```



```

    assertThat(result).extracting(CountByTemplateAndPermissionDto::getPermission,
CountByTemplateAndPermissionDto::getTemplateId, CountByTemplateAndPermissionDto::getCount)
        .containsOnly(tuple(ADMIN, template1.getId(), 1), tuple(CODEVIEWER, template1.getId(), 4), tuple(ADMIN,
template2.getId(), 1));
}

```

@Test

```

public void user_count_by_template_and_permission() {
    PermissionTemplateDto template1 = templateDb.insertTemplate();
    PermissionTemplateDto template2 = templateDb.insertTemplate();
    PermissionTemplateDto template3 = templateDb.insertTemplate();
    PermissionTemplateDto anotherTemplate = templateDb.insertTemplate();

    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();

    templateDb.addUserToTemplate(template1.getId(), user1.getId(), ADMIN);
    templateDb.addUserToTemplate(template1.getId(), user2.getId(), ADMIN);
    templateDb.addUserToTemplate(template1.getId(), user3.getId(), ADMIN);
    templateDb.addUserToTemplate(template1.getId(), user1.getId(), USER);
    templateDb.addUserToTemplate(template2.getId(), user1.getId(), USER);
    templateDb.addUserToTemplate(anotherTemplate.getId(), user1.getId(), ISSUE_ADMIN);

    final List<CountByTemplateAndPermissionDto> result = new ArrayList<>();
    underTest.usersCountByTemplateIdAndPermission(dbSession, asList(template1.getId(), template2.getId(),
template3.getId()),
        context -> result.add(context.getResultObject()));
    assertThat(result)
        .extracting(CountByTemplateAndPermissionDto::getPermission,
CountByTemplateAndPermissionDto::getTemplateId, CountByTemplateAndPermissionDto::getCount)
        .containsExactlyInAnyOrder(
            tuple(ADMIN, template1.getId(), 3),
            tuple(USER, template1.getId(), 1),
            tuple(USER, template2.getId(), 1));
}

```

@Test

```

public void selectPotentialPermissions_with_unknown_template_and_no_user() {
    List<String> result = underTest.selectPotentialPermissionsByUserIdAndTemplateId(dbSession, null, 42L);

    assertThat(result).isEmpty();
}

```

@Test

```

public void selectPotentialPermissions_with_empty_template_and_new_user() {
    UserDto user = db.users().insertUser();
}

```

```

PermissionTemplateDto template = templateDb.insertTemplate();

List<String> result = underTest.selectPotentialPermissionsByUserIdAndTemplateId(dbSession, user.getId(),
template.getId());

assertThat(result).isEmpty();
}

@Test
public void selectPotentialPermission_with_template_users_groups_and_project_creator() {
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup(new GroupDto());
    db.users().insertMember(group, user);
    PermissionTemplateDto template = templateDb.insertTemplate();
    templateDb.addProjectCreatorToTemplate(template.getId(), SCAN_EXECUTION);
    templateDb.addProjectCreatorToTemplate(template.getId(), UserRole.ADMIN);
    templateDb.addUserToTemplate(template.getId(), user.getId(), UserRole.USER);
    templateDb.addUserToTemplate(template.getId(), user.getId(), UserRole.ADMIN);
    templateDb.addGroupToTemplate(template.getId(), group.getId(), UserRole.CODEVIEWER);
    templateDb.addGroupToTemplate(template.getId(), group.getId(), UserRole.ADMIN);
    templateDb.addGroupToTemplate(template.getId(), null, UserRole.ISSUE_ADMIN);

    List<String> resultWithUser = underTest.selectPotentialPermissionsByUserIdAndTemplateId(dbSession,
user.getId(), template.getId());
    List<String> resultWithoutUser = underTest.selectPotentialPermissionsByUserIdAndTemplateId(dbSession, null,
template.getId());

    assertThat(resultWithUser).containsOnlyOnce(SCAN_EXECUTION, UserRole.ADMIN, UserRole.USER,
UserRole.CODEVIEWER, UserRole.ISSUE_ADMIN);
    // only permission from anyone group
    assertThat(resultWithoutUser).containsOnly(UserRole.ISSUE_ADMIN);
}

@Test
public void selectAllGroupPermissionTemplatesByGroupId() {
    PermissionTemplateDto permissionTemplate = templateDb.insertTemplate(db.getDefaultOrganization());
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    templateDb.addGroupToTemplate(permissionTemplate, group1, "user");
    templateDb.addGroupToTemplate(permissionTemplate, group1, "admin");
    templateDb.addGroupToTemplate(permissionTemplate, group2, "user");

    assertThat(db.getDbClient().permissionTemplateDao().selectAllGroupPermissionTemplatesByGroupId(db.getSessi
on(), group1.getId()))
        .extracting(PermissionTemplateGroupDto::getGroupId, PermissionTemplateGroupDto::getPermission)
        .containsOnly(tuple(group1.getId(), "user"), tuple(group1.getId(), "admin"));
}

```

```

@Test
public void deleteByOrganization_does_not_fail_on_empty_db() {
    underTest.deleteByOrganization(dbSession, "some uuid");
    dbSession.commit();
}

@Test
public void deleteByOrganization_does_not_fail_when_organization_has_no_template() {
    OrganizationDto organization = db.organizations().insert();

    underTest.deleteByOrganization(dbSession, organization.getUuid());
    dbSession.commit();
}

@Test
public void deleteByOrganization_delete_all_templates_of_organization_and_content_of_child_tables() {
    OrganizationDto organization1 = db.organizations().insert();
    OrganizationDto organization2 = db.organizations().insert();
    OrganizationDto organization3 = db.organizations().insert();

    PermissionTemplateDto[] templates = {
        createTemplate(organization1),
        createTemplate(organization2),
        createTemplate(organization3),
        createTemplate(organization1),
        createTemplate(organization2)
    };

    verifyTemplateIdsInDb(templates[0].getId(), templates[1].getId(), templates[2].getId(), templates[3].getId(),
        templates[4].getId());

    underTest.deleteByOrganization(dbSession, organization2.getUuid());
    dbSession.commit();
    verifyTemplateIdsInDb(templates[0].getId(), templates[2].getId(), templates[3].getId());

    underTest.deleteByOrganization(dbSession, organization3.getUuid());
    dbSession.commit();
    verifyTemplateIdsInDb(templates[0].getId(), templates[3].getId());

    underTest.deleteByOrganization(dbSession, organization1.getUuid());
    dbSession.commit();
    verifyTemplateIdsInDb();
}

@Test
public void delete_user_permissions_by_organization() {
    OrganizationDto organization = db.organizations().insert();
    OrganizationDto anotherOrganization = db.organizations().insert();

```

```

UserDto user = db.users().insertUser();
UserDto anotherUser = db.users().insertUser();
PermissionTemplateDto template = db.permissionTemplates().insertTemplate(organization);
PermissionTemplateDto anotherTemplate = db.permissionTemplates().insertTemplate(anotherOrganization);
String permission = "PERMISSION";
db.permissionTemplates().addUserToTemplate(template.getId(), user.getId(), permission);
db.permissionTemplates().addUserToTemplate(template.getId(), anotherUser.getId(), permission);
db.permissionTemplates().addUserToTemplate(anotherTemplate.getId(), user.getId(), permission);

underTest.deleteUserPermissionsByOrganization(dbSession, organization.getUuid(), user.getId());

assertThat(underTest.selectUserPermissionsByTemplateId(dbSession,
template.getId())).extracting(PermissionTemplateUserDto::getUserId).containsOnly(anotherUser.getId());
assertThat(underTest.selectUserPermissionsByTemplateId(dbSession,
anotherTemplate.getId())).extracting(PermissionTemplateUserDto::getUserId).containsOnly(user.getId());
}

@Test
public void delete_user_permissions_by_user_id() {
    OrganizationDto organization = db.organizations().insert();
    OrganizationDto anotherOrganization = db.organizations().insert();
    UserDto user = db.users().insertUser();
    UserDto anotherUser = db.users().insertUser();
    PermissionTemplateDto template = db.permissionTemplates().insertTemplate(organization);
    PermissionTemplateDto anotherTemplate = db.permissionTemplates().insertTemplate(anotherOrganization);
    String permission = "PERMISSION";
    db.permissionTemplates().addUserToTemplate(template.getId(), user.getId(), permission);
    db.permissionTemplates().addUserToTemplate(template.getId(), anotherUser.getId(), permission);
    db.permissionTemplates().addUserToTemplate(anotherTemplate.getId(), user.getId(), permission);

    underTest.deleteUserPermissionsByUserId(dbSession, user.getId());
    db.commit();

    assertThat(db.select("select template_id as \"templateId\", user_id as \"userId\", permission_reference as
\"permission\" from perm_templates_users"))
        .extracting((row) -> row.get("templateId"), (row) -> row.get("userId"), (row) -> row.get("permission"))
        .containsOnly(tuple(template.getId(), anotherUser.getId().longValue(), permission));
}

private PermissionTemplateDto createTemplate(OrganizationDto organization) {
    UserDto user = db.users().insertUser();
    GroupDto group = db.users().insertGroup();
    db.users().insertMember(group, user);
    PermissionTemplateDto template = templateDb.insertTemplate(organization);
    templateDb.addProjectCreatorToTemplate(template.getId(), SCAN_EXECUTION);
    templateDb.addProjectCreatorToTemplate(template.getId(), UserRole.ADMIN);
    templateDb.addUserToTemplate(template.getId(), user.getId(), UserRole.USER);
    templateDb.addUserToTemplate(template.getId(), user.getId(), UserRole.ADMIN);
}

```

```

templateDb.addGroupToTemplate(template.getId(), group.getId(), UserRole.CODEVIEWER);
templateDb.addGroupToTemplate(template.getId(), group.getId(), UserRole.ADMIN);
templateDb.addGroupToTemplate(template.getId(), null, UserRole.ISSUE_ADMIN);
return template;
}

private void verifyTemplateIdsInDb(Long... expectedTemplateIds) {
    assertThat(db.select("select distinct template_id as \"templateId\" from perm_templates_groups"))
        .extracting((row) -> (Long) row.get("templateId"))
        .containsOnly(expectedTemplateIds);
    assertThat(db.select("select distinct template_id as \"templateId\" from perm_templates_users"))
        .extracting((row) -> (Long) row.get("templateId"))
        .containsOnly(expectedTemplateIds);
    assertThat(db.select("select distinct template_id as \"templateId\" from perm_tpl_characteristics"))
        .extracting((row) -> (Long) row.get("templateId"))
        .containsOnly(expectedTemplateIds);
    assertThat(db.select("select distinct id as \"templateId\" from permission_templates"))
        .extracting((row) -> (Long) row.get("templateId"))
        .containsOnly(expectedTemplateIds);
}

}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

import java.util.Optional;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;

```

```

import org.sonar.db.DbSession;
import org.sonar.server.permission.GroupPermissionChange;
import org.sonar.server.permission.PermissionChange;
import org.sonar.server.permission.PermissionUpdater;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.user.UserSession;
import org.sonar.server.usergroups.ws.GroupIdOrAnyone;

import static java.util.Arrays.asList;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupIdParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createGroupNameParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class AddGroupAction implements PermissionsWsAction {

    public static final String ACTION = "add_group";

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionUpdater permissionUpdater;
    private final PermissionWsSupport support;

    public AddGroupAction(DbClient dbClient, UserSession userSession, PermissionUpdater permissionUpdater,
PermissionWsSupport support) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.permissionUpdater = permissionUpdater;
        this.support = support;
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction(ACTION)
            .setDescription("Add permission to a group.<br /> " +
                "This service defaults to global permissions, but can be limited to project permissions by providing project id or
project key.<br /> " +
                "The group name or group id must be provided. <br />" +
                "Requires one of the following permissions:" +
                "<ul> " +
                "<li>'Administer System'</li>" +
                "<li>'Administer' rights on the specified project</li>" +
                "</ul>")
            .setSince("5.2")
            .setPost(true)

```

```

        .setHandler(this);

        createPermissionParameter(action);
        createOrganizationParameter(action).setSince("6.2");
        createGroupNameParameter(action);
        createGroupIdParameter(action);
        createProjectParameters(action);
    }

    @Override
    public void handle(Request request, Response response) throws Exception {
        try (DbSession dbSession = dbClient.openSession(false)) {
            GroupIdOrAnyone group = support.findGroup(dbSession, request);
            Optional<ProjectId> projectId = support.findProjectId(dbSession, request);

            checkProjectAdmin(userSession, group.getOrganizationUuid(), projectId);

            PermissionChange change = new GroupPermissionChange(
                PermissionChange.Operation.ADD,
                request.mandatoryParam(PARAM_PERMISSION),
                projectId.orElse(null),
                group);
            permissionUpdater.apply(dbSession, asList(change));
        }
        response.noContent();
    }
}

```

Apache Log4j API

Copyright 1999-2017 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* [mailto:info AT sonarsource DOT com](mailto:info@sonarsource.com)

*

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

import javax.annotation.Nullable;
import org.junit.Test;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.permission.template.PermissionTemplateGroupDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonarqube.ws.Permissions.WsGroupsResponse;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.server.ws.WebService.Param.PAGE;
import static org.sonar.api.server.ws.WebService.Param.PAGE_SIZE;
import static org.sonar.api.server.ws.WebService.Param.TEXT_QUERY;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.db.permission.template.PermissionTemplateTesting.newPermissionTemplateGroupDto;
import static org.sonar.db.user.GroupTesting.newGroupDto;
import static org.sonar.test.JsonAssert.assertJson;
import static org.sonarqube.ws.MediaType.PROTOBUF;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class TemplateGroupsActionTest extends BasePermissionWsTest<TemplateGroupsAction> {

    @Override
    protected TemplateGroupsAction buildWsAction() {
        return new TemplateGroupsAction(db.getClient(), userSession, new PermissionWsSupport());
    }

    @Test
    public void template_groups_of_json_example() {
        GroupDto adminGroup = insertGroupOnDefaultOrganization("sonar-administrators", "System administrators");
        GroupDto userGroup = insertGroupOnDefaultOrganization("sonar-users", "Any new users created will

```


automatically join this group");

```
PermissionTemplateDto template = addTemplateToDefaultOrganization();
addGroupToTemplate(newPermissionTemplateGroup(ISSUE_ADMIN, template.getId(), adminGroup.getId()));
addGroupToTemplate(newPermissionTemplateGroup(ISSUE_ADMIN, template.getId(), userGroup.getId()));
// Anyone group
addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), null));
addGroupToTemplate(newPermissionTemplateGroup(ISSUE_ADMIN, template.getId(), null));
commit();
loginAsAdmin(db.getDefaultOrganization());
```

```
String response = newRequest()
    .setParam(PARAM_PERMISSION, ISSUE_ADMIN)
    .setParam(PARAM_TEMPLATE_ID, template.getUuid())
    .execute()
    .getInput();

assertJson(response)
    .ignoreFields("id")
    .withStrictArrayOrder()
    .isSimilarTo(getClass().getResource("template_groups-example.json"));
}
```

@Test

```
public void do_not_fail_when_group_name_exists_in_multiple_organizations() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
```

```
    String groupName = "group-name";
    GroupDto group1 = db.users().insertGroup(db.getDefaultOrganization(), groupName);
    addGroupToTemplate(newPermissionTemplateGroup(CODEVIEWER, template.getId(), group1.getId()));
    addGroupToTemplate(newPermissionTemplateGroup(ADMIN, template.getId(), group1.getId()));
```

```
    OrganizationDto otherOrganization = db.organizations().insert();
    db.users().insertGroup(otherOrganization, groupName);
```

```
    loginAsAdmin(db.getDefaultOrganization());
```

```
    newRequest()
        .setMediaType(PROTOBUF)
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .setParam(TEXT_QUERY, "-nam")
        .execute();
}
```

@Test

```
public void return_all_permissions_of_matching_groups() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
```

```

GroupDto group1 = db.users().insertGroup(db.getDefaultOrganization(), "group-1-name");
addGroupToTemplate(newPermissionTemplateGroup(CODEVIEWER, template.getId(), group1.getId()));
addGroupToTemplate(newPermissionTemplateGroup(ADMIN, template.getId(), group1.getId()));

GroupDto group2 = db.users().insertGroup(db.getDefaultOrganization(), "group-2-name");
addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group2.getId()));
addGroupToTemplate(newPermissionTemplateGroup(ADMIN, template.getId(), group2.getId()));

GroupDto group3 = db.users().insertGroup(db.getDefaultOrganization(), "group-3-name");

// Anyone
addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), null));
addGroupToTemplate(newPermissionTemplateGroup(ISSUE_ADMIN, template.getId(), null));

PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
addGroupToTemplate(newPermissionTemplateGroup(ADMIN, anotherTemplate.getId(), group3.getId()));
commit();
loginAsAdmin(db.getDefaultOrganization());

WsGroupsResponse response = newRequest()
    .setParam(PARAM_TEMPLATE_ID, template.getUuid())
    .executeProtobuf(WsGroupsResponse.class);

assertThat(response.getGroupsList()).extracting("name").containsExactly("Anyone", "group-1-name", "group-2-
name");
assertThat(response.getGroups(0).getPermissionsList()).containsOnly("user", "issueadmin");
assertThat(response.getGroups(1).getPermissionsList()).containsOnly("codeviewer", "admin");
assertThat(response.getGroups(2).getPermissionsList()).containsOnly("user", "admin");
}

@Test
public void search_by_permission() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();

    GroupDto group1 = db.users().insertGroup(db.getDefaultOrganization(), "group-1-name");
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group1.getId()));
    addGroupToTemplate(newPermissionTemplateGroup(CODEVIEWER, template.getId(), group1.getId()));

    GroupDto group2 = db.users().insertGroup(db.getDefaultOrganization(), "group-2-name");
    addGroupToTemplate(newPermissionTemplateGroup(ADMIN, template.getId(), group2.getId()));

    GroupDto group3 = db.users().insertGroup(db.getDefaultOrganization(), "group-3-name");

    // Anyone
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), null));

    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
    addGroupToTemplate(newPermissionTemplateGroup(ADMIN, anotherTemplate.getId(), group3.getId()));

```

```

commit();
loginAsAdmin(db.getDefaultOrganization());

WsGroupsResponse response = newRequest()
    .setParam(PARAM_PERMISSION, USER)
    .setParam(PARAM_TEMPLATE_ID, template.getUuid())
    .executeProtobuf(WsGroupsResponse.class);

assertThat(response.getGroupsList()).extracting("name").containsExactly("Anyone", "group-1-name");
assertThat(response.getGroups(0).getPermissionsList()).containsOnly("user");
assertThat(response.getGroups(1).getPermissionsList()).containsOnly("user", "codeviewer");
}

@Test
public void search_by_template_name() {
    OrganizationDto defaultOrg = db.getDefaultOrganization();
    GroupDto group1 = db.users().insertGroup(defaultOrg, "group-1-name");
    GroupDto group2 = db.users().insertGroup(defaultOrg, "group-2-name");
    GroupDto group3 = db.users().insertGroup(defaultOrg, "group-3-name");

    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group1.getId()));
    addGroupToTemplate(newPermissionTemplateGroup(ADMIN, template.getId(), group2.getId()));
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), null));

    PermissionTemplateDto anotherTemplate = addTemplateToDefaultOrganization();
    addGroupToTemplate(newPermissionTemplateGroup(USER, anotherTemplate.getId(), group1.getId()));
    commit();
    loginAsAdmin(db.getDefaultOrganization());

    WsGroupsResponse response = newRequest()
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .executeProtobuf(WsGroupsResponse.class);

    assertThat(response.getGroupsList()).extracting("name").containsExactly("Anyone", "group-1-name", "group-2-
name");
}

@Test
public void search_with_pagination() {
    OrganizationDto defaultOrg = db.getDefaultOrganization();
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    GroupDto group1 = db.users().insertGroup(defaultOrg, "group-1-name");
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group1.getId()));
    GroupDto group2 = db.users().insertGroup(defaultOrg, "group-2-name");
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group2.getId()));
    commit();
    loginAsAdmin(db.getDefaultOrganization());
}

```

```

WsGroupsResponse response = newRequest()
    .setParam(PARAM_PERMISSION, USER)
    .setParam(PARAM_TEMPLATE_NAME, template.getName())
    .setParam(PAGE, "2")
    .setParam(PAGE_SIZE, "1")
    .executeProtobuf(WsGroupsResponse.class);

assertThat(response.getGroupsList()).extracting("name").containsExactly("group-2-name");
}

@Test
public void search_with_text_query() {
    OrganizationDto defaultOrg = db.getDefaultOrganization();
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    GroupDto group1 = db.users().insertGroup(defaultOrg, "group-1-name");
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group1.getId()));
    GroupDto group2 = db.users().insertGroup(defaultOrg, "group-2-name");
    GroupDto group3 = db.users().insertGroup(defaultOrg, "group-3");
    commit();
    loginAsAdmin(db.getDefaultOrganization());

    WsGroupsResponse response = newRequest()
        .setParam(PARAM_TEMPLATE_NAME, template.getName())
        .setParam(TEXT_QUERY, "-nam")
        .executeProtobuf(WsGroupsResponse.class);

    assertThat(response.getGroupsList()).extracting("name").containsExactly("group-1-name", "group-2-name");
}

@Test
public void search_with_text_query_return_all_groups_even_when_no_permission_set() {
    OrganizationDto defaultOrg = db.getDefaultOrganization();
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    db.users().insertGroup(defaultOrg, "group-1-name");
    db.users().insertGroup(defaultOrg, "group-2-name");
    db.users().insertGroup(defaultOrg, "group-3-name");
    commit();
    loginAsAdmin(db.getDefaultOrganization());

    WsGroupsResponse response = newRequest()
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .setParam(TEXT_QUERY, "-name")
        .executeProtobuf(WsGroupsResponse.class);

    assertThat(response.getGroupsList()).extracting("name").containsExactly("group-1-name", "group-2-name",
"group-3-name");
    assertThat(response.getGroups(0).getPermissionsList()).isEmpty();
}

```

```

    assertThat(response.getGroups(1).getPermissionsList()).isEmpty();
    assertThat(response.getGroups(2).getPermissionsList()).isEmpty();
}

@Test
public void search_with_text_query_return_anyone_group_even_when_no_permission_set() {
    PermissionTemplateDto template = addTemplateToDefaultOrganization();
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "group");
    addGroupToTemplate(newPermissionTemplateGroup(USER, template.getId(), group.getId()));
    commit();
    loginAsAdmin(db.getDefaultOrganization());

    WsGroupsResponse response = newRequest()
        .setParam(PARAM_TEMPLATE_ID, template.getId())
        .setParam(TEXT_QUERY, "nyo")
        .executeProtobuf(WsGroupsResponse.class);

    assertThat(response.getGroupsList()).extracting("name").containsExactly("Anyone");
    assertThat(response.getGroups(0).getPermissionsList()).isEmpty();
}

@Test
public void fail_if_not_logged_in() {
    PermissionTemplateDto template1 = addTemplateToDefaultOrganization();
    userSession.anonymous();

    expectedException.expect(UnauthorizedException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, USER)
        .setParam(PARAM_TEMPLATE_ID, template1.getId())
        .execute();
}

@Test
public void fail_if_insufficient_privileges() {
    PermissionTemplateDto template1 = addTemplateToDefaultOrganization();
    userSession.login();

    expectedException.expect(ForbiddenException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, USER)
        .setParam(PARAM_TEMPLATE_ID, template1.getId())
        .execute();
}

@Test

```

```

public void fail_if_template_uuid_and_name_provided() {
    PermissionTemplateDto template1 = addTemplateToDefaultOrganization();
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, USER)
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .setParam(PARAM_TEMPLATE_NAME, template1.getName())
        .execute();
}

@Test
public void fail_if_template_uuid_nor_name_provided() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(BadRequestException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, USER)
        .execute();
}

@Test
public void fail_if_template_is_not_found() {
    loginAsAdmin(db.getDefaultOrganization());

    expectedException.expect(NotFoundException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, USER)
        .setParam(PARAM_TEMPLATE_ID, "unknown-uuid")
        .execute();
}

@Test
public void fail_if_not_a_project_permission() {
    loginAsAdmin(db.getDefaultOrganization());
    PermissionTemplateDto template1 = addTemplateToDefaultOrganization();

    expectedException.expect(IllegalArgumentException.class);

    newRequest()
        .setParam(PARAM_PERMISSION, GlobalPermissions.QUALITY_GATE_ADMIN)
        .setParam(PARAM_TEMPLATE_ID, template1.getUuid())
        .execute();
}

```

```

private GroupDto insertGroupOnDefaultOrganization(String name, String description) {
    return
db.users().insertGroup(newGroupDto().setName(name).setDescription(description).setOrganizationUuid(db.getDefaultOrganization().getUuid()));
}

private void addGroupToTemplate(PermissionTemplateGroupDto permissionTemplateGroup) {
    db.getClient().permissionTemplateDao().insertGroupPermission(db.getSession(), permissionTemplateGroup);
}

private static PermissionTemplateGroupDto newPermissionTemplateGroup(String permission, long templateId,
@Nullable Integer groupId) {
    return newPermissionTemplateGroupDto()
        .setPermission(permission)
        .setTemplateId(templateId)
        .setGroupId(groupId);
}

private void commit() {
    db.commit();
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.db.permission;

import java.util.ArrayList;
import java.util.Collection;
import java.util.Collections;
import java.util.List;

```

```

import java.util.Random;
import java.util.stream.IntStream;
import java.util.stream.Stream;
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.core.util.stream.MoreCollectors;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.user.GroupDto;

import static java.util.Arrays.asList;
import static java.util.Collections.singletonList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.assertj.core.api.Assertions.tuple;
import static org.sonar.api.security.DefaultGroups.ANYONE;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.ISSUE_ADMIN;
import static org.sonar.api.web.UserRole.USER;
import static org.sonar.core.permission.GlobalPermissions.PROVISIONING;
import static org.sonar.core.permission.GlobalPermissions.SCAN_EXECUTION;
import static org.sonar.core.permission.GlobalPermissions.SYSTEM_ADMIN;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.PROVISION_PROJECTS;
import static org.sonar.db.permission.OrganizationPermission.SCAN;

public class GroupPermissionDaoTest {

    private static final int ANYONE_ID = 0;
    private static final int MISSING_ID = -1;

    @Rule
    public DbTester db = DbTester.create(System2.INSTANCE);

    private DbSession dbSession = db.getSession();
    private GroupPermissionDao underTest = new GroupPermissionDao();
    private String defaultOrganizationUuid;

    @Before
    public void setUp() throws Exception {
        defaultOrganizationUuid = db.getDefaultOrganization().getUuid();
    }
}

```



```

@Test
public void group_count_by_permission_and_component_id_on_private_projects() {
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    GroupDto group3 = db.users().insertGroup();
    ComponentDto project1 = db.components().insertPrivateProject();
    ComponentDto project2 = db.components().insertPrivateProject();
    ComponentDto project3 = db.components().insertPrivateProject();

    db.users().insertProjectPermissionOnGroup(group1, ISSUE_ADMIN, project1);
    db.users().insertProjectPermissionOnGroup(group1, ADMIN, project2);
    db.users().insertProjectPermissionOnGroup(group2, ADMIN, project2);
    db.users().insertProjectPermissionOnGroup(group3, ADMIN, project2);
    db.users().insertProjectPermissionOnGroup(group1, USER, project2);
    db.users().insertProjectPermissionOnGroup(group1, USER, project3);

    final List<CountPerProjectPermission> result = new ArrayList<>();
    underTest.groupsCountByComponentIdAndPermission(dbSession, asList(project2.getId(), project3.getId(),
789L),
        context -> result.add((CountPerProjectPermission) context.getResultObject()));

    assertThat(result).hasSize(3);
    assertThat(result).extracting("permission").containsOnly(ADMIN, USER);
    assertThat(result).extracting("componentId").containsOnly(project2.getId(), project3.getId());
    assertThat(result).extracting("count").containsOnly(3, 1);
}

```

```

@Test
public void group_count_by_permission_and_component_id_on_public_projects() {
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    GroupDto group3 = db.users().insertGroup();
    ComponentDto project1 = db.components().insertPublicProject();
    ComponentDto project2 = db.components().insertPublicProject();
    ComponentDto project3 = db.components().insertPublicProject();

    db.users().insertProjectPermissionOnGroup(group1, "p1", project1);
    db.users().insertProjectPermissionOnGroup(group1, "p2", project2);
    db.users().insertProjectPermissionOnGroup(group2, "p2", project2);
    db.users().insertProjectPermissionOnGroup(group3, "p2", project2);
    // anyone group
    db.users().insertProjectPermissionOnAnyone("p2", project2);
    db.users().insertProjectPermissionOnGroup(group1, "p3", project2);
    db.users().insertProjectPermissionOnGroup(group1, "p3", project3);

    final List<CountPerProjectPermission> result = new ArrayList<>();
    underTest.groupsCountByComponentIdAndPermission(dbSession, asList(project2.getId(), project3.getId(),
789L),

```

```

context -> result.add((CountPerProjectPermission) context.getResultObject());

assertThat(result).hasSize(3);
assertThat(result).extracting("permission").containsOnly("p2", "p3");
assertThat(result).extracting("componentId").containsOnly(project2.getId(), project3.getId());
assertThat(result).extracting("count").containsOnly(4, 1);
}

@Test
public void selectGroupNamesByQuery_is_ordered_by_group_names() {
    OrganizationDto organizationDto = db.organizations().insert();
    GroupDto group2 = db.users().insertGroup(organizationDto, "Group-2");
    GroupDto group3 = db.users().insertGroup(organizationDto, "Group-3");
    GroupDto group1 = db.users().insertGroup(organizationDto, "Group-1");
    db.users().insertPermissionOnAnyone(organizationDto, SCAN);

    assertThat(underTest.selectGroupNamesByQuery(dbSession,
newQuery().setOrganizationUuid(organizationDto.getUuid()).build()))
        .containsExactly(ANYONE, group1.getName(), group2.getName(), group3.getName());
}

@Test
public void countGroupsByQuery() {
    OrganizationDto organizationDto = db.getDefaultOrganization();
    GroupDto group1 = db.users().insertGroup(organizationDto, "Group-1");
    db.users().insertGroup(organizationDto, "Group-2");
    db.users().insertGroup(organizationDto, "Group-3");
    db.users().insertPermissionOnAnyone(organizationDto, SCAN);
    db.users().insertPermissionOnGroup(group1, PROVISION_PROJECTS);

    assertThat(underTest.countGroupsByQuery(dbSession,
        newQuery().build()).isEqualTo(4);
    assertThat(underTest.countGroupsByQuery(dbSession,
        newQuery().setPermission(PROVISION_PROJECTS.getKey()).build()).isEqualTo(1);
    assertThat(underTest.countGroupsByQuery(dbSession,
        newQuery().withAtLeastOnePermission().build()).isEqualTo(2);
    assertThat(underTest.countGroupsByQuery(dbSession,
        newQuery().setSearchQuery("Group-").build()).isEqualTo(3);
    assertThat(underTest.countGroupsByQuery(dbSession,
        newQuery().setSearchQuery("Any").build()).isEqualTo(1);
}

@Test
public void selectGroupNamesByQuery_with_global_permission() {
    OrganizationDto organizationDto = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(organizationDto, "Group-1");
    GroupDto group2 = db.users().insertGroup(organizationDto, "Group-2");
    GroupDto group3 = db.users().insertGroup(organizationDto, "Group-3");

```

```

    ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(organizationDto));

db.users().insertPermissionOnAnyone(organizationDto, SCAN);
db.users().insertPermissionOnAnyone(organizationDto, PROVISION_PROJECTS);
db.users().insertPermissionOnGroup(group1, SCAN);
db.users().insertPermissionOnGroup(group3, ADMINISTER);
db.users().insertProjectPermissionOnGroup(group2, UserRole.ADMIN, project);

assertThat(underTest.selectGroupNamesByQuery(dbSession,
newQuery().setOrganizationUuid(organizationDto.getUuid()).setPermission(SCAN.getKey()).build()).containsExactly(ANYONE, group1.getName()));

assertThat(underTest.selectGroupNamesByQuery(dbSession,
newQuery().setOrganizationUuid(organizationDto.getUuid()).setPermission(ADMINISTER.getKey()).build()).containsExactly(group3.getName()));

assertThat(underTest.selectGroupNamesByQuery(dbSession,
newQuery().setOrganizationUuid(organizationDto.getUuid()).setPermission(PROVISION_PROJECTS.getKey()).build()).containsExactly(ANYONE));
}

@Test
public void select_groups_by_query_with_project_permissions_on_public_projects() {
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    GroupDto group3 = db.users().insertGroup();

    ComponentDto project = db.components().insertPublicProject();
    ComponentDto anotherProject = db.components().insertPublicProject();

    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    db.users().insertProjectPermissionOnGroup(group1, "p2", project);
    db.users().insertProjectPermissionOnAnyone("p3", project);

    db.users().insertProjectPermissionOnGroup(group1, "p4", anotherProject);
    db.users().insertProjectPermissionOnAnyone("p4", anotherProject);
    db.users().insertProjectPermissionOnGroup(group3, "p1", anotherProject);
    db.users().insertPermissionOnGroup(group2, "p5");

    PermissionQuery.Builder builderOnComponent = newQuery().setComponentUuid(project.uuid());
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.withAtLeastOnePermission().build()).containsOnlyOnce(group1.getName()));
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.setPermission("p1").build()).containsOnlyOnce(group1.getName()));
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.setPermission("p3").build()).containsOnlyOnce(ANYONE));
}

```

```

}

@Test
public void select_groups_by_query_with_project_permissions_on_private_projects() {
    GroupDto group1 = db.users().insertGroup();
    GroupDto group2 = db.users().insertGroup();
    GroupDto group3 = db.users().insertGroup();

    ComponentDto project = db.components().insertPrivateProject();
    ComponentDto anotherProject = db.components().insertPrivateProject();

    db.users().insertProjectPermissionOnGroup(group1, SCAN_EXECUTION, project);
    db.users().insertProjectPermissionOnGroup(group1, PROVISIONING, project);

    db.users().insertProjectPermissionOnGroup(group1, SYSTEM_ADMIN, anotherProject);
    db.users().insertProjectPermissionOnGroup(group3, SCAN_EXECUTION, anotherProject);
    db.users().insertPermissionOnGroup(group2, SCAN);

    PermissionQuery.Builder builderOnComponent = newQuery().setComponentUuid(project.uuid());
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.withAtLeastOnePermission().build()), containsOnlyOnce(group1.getName()));
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.setPermission(SCAN_EXECUTION).build()), containsOnlyOnce(group1.getName()));
    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        builderOnComponent.setPermission(USER).build()), isEmpty());
}

@Test
public void selectGroupNamesByQuery_is_paginated() {
    IntStream.rangeClosed(0, 9).forEach(i -> db.users().insertGroup(db.getDefaultOrganization(), i + "-name"));

    List<String> groupNames = underTest.selectGroupNamesByQuery(dbSession,
        newQuery().setPageIndex(2).setPageSize(3).build());
    assertThat(groupNames).containsExactly("3-name", "4-name", "5-name");
}

@Test
public void selectGroupNamesByQuery_with_search_query() {
    GroupDto group = db.users().insertGroup(db.getDefaultOrganization(), "group-anyone");
    db.users().insertGroup(db.getDefaultOrganization(), "unknown");
    db.users().insertPermissionOnGroup(group, SCAN);

    assertThat(underTest.selectGroupNamesByQuery(dbSession,
        newQuery().setSearchQuery("any").build()), containsOnlyOnce(ANYONE, group.getName()));
}

@Test
public void selectGroupNamesByQuery_does_not_return_anyone_when_group_roles_is_empty() {

```

```

GroupDto group = db.users().insertGroup();

assertThat(underTest.selectGroupNamesByQuery(dbSession,
    newQuery().build())
    .doesNotContain(ANYONE)
    .containsExactly(group.getName());
}

@Test
public void selectByGroupIds_on_global_permissions() {
    OrganizationDto organizationDto = db.organizations().insert();

    GroupDto group1 = db.users().insertGroup(organizationDto, "Group-1");
    db.users().insertPermissionOnGroup(group1, SCAN);

    GroupDto group2 = db.users().insertGroup(organizationDto, "Group-2");
    ComponentDto project =
db.components().insertComponent(ComponentTesting.newPrivateProjectDto(organizationDto));
    db.users().insertProjectPermissionOnGroup(group2, UserRole.ADMIN, project);

    GroupDto group3 = db.users().insertGroup(organizationDto, "Group-3");
    db.users().insertPermissionOnGroup(group3, ADMINISTER);

    // Anyone
    db.users().insertPermissionOnAnyone(organizationDto, SCAN);
    db.users().insertPermissionOnAnyone(organizationDto, PROVISION_PROJECTS);

    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(group1.getId(), null))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group1.getId(), SCAN_EXECUTION, null)));

    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(group2.getId(),
null)).isEmpty());

    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(group3.getId(), null))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group3.getId(), SYSTEM_ADMIN, null)));

    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(ANYONE_ID, null))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(
            tuple(0, SCAN_EXECUTION, null),
            tuple(0, PROVISIONING, null)));

    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(group1.getId(),

```

```

group2.getId(), ANYONE_ID), null)).hasSize(3);
    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), asList(MISSING_ID),
null)).isEmpty();
    assertThat(underTest.selectByGroupIds(dbSession, organizationDto.getUuid(), Collections.emptyList(),
null)).isEmpty();
}

@Test
public void selectByGroupIds_on_public_projects() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org, "Group-1");
    db.users().insertPermissionOnGroup(group1, "p1");

    GroupDto group2 = db.users().insertGroup(org, "Group-2");
    ComponentDto project = db.components().insertPublicProject(org);
    db.users().insertProjectPermissionOnGroup(group2, "p2", project);

    GroupDto group3 = db.users().insertGroup(org, "Group-3");
    db.users().insertProjectPermissionOnGroup(group3, "p2", project);

    // Anyone group
    db.users().insertPermissionOnAnyone(org, "p3");
    db.users().insertProjectPermissionOnAnyone("p4", project);

    assertThat(underTest.selectByGroupIds(dbSession, defaultOrganizationUuid, singletonList(group1.getId()),
project.getId())).isEmpty();

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group2.getId()), project.getId()))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group2.getId(), "p2", project.getId()));

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group3.getId()), project.getId()))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group3.getId(), "p2", project.getId()));

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(ANYONE_ID), project.getId()))
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(0, "p4", project.getId()));

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), asList(group1.getId(), group2.getId(),
ANYONE_ID), project.getId())).hasSize(2);
    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(MISSING_ID),
project.getId())).isEmpty();
    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group1.getId(),
123L))).isEmpty();
}

```

```

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), Collections.emptyList(),
project.getId()).isEmpty());
}

@Test
public void selectByGroupIds_on_private_projects() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org, "Group-1");
    db.users().insertPermissionOnGroup(group1, PROVISION_PROJECTS);

    GroupDto group2 = db.users().insertGroup(org, "Group-2");
    ComponentDto project = db.components().insertPrivateProject(org);
    db.users().insertProjectPermissionOnGroup(group2, USER, project);

    GroupDto group3 = db.users().insertGroup(org, "Group-3");
    db.users().insertProjectPermissionOnGroup(group3, USER, project);

    // Anyone group
    db.users().insertPermissionOnAnyone(org, SCAN);

    assertThat(underTest.selectByGroupIds(dbSession, defaultOrganizationUuid, singletonList(group1.getId()),
project.getId()).isEmpty());

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group2.getId()), project.getId())
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group2.getId(), USER, project.getId())));

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group3.getId()), project.getId())
        .extracting(GroupPermissionDto::getGroupId, GroupPermissionDto::getRole,
GroupPermissionDto::getResourceId)
        .containsOnly(tuple(group3.getId(), USER, project.getId())));

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(ANYONE_ID), project.getId())
        .isEmpty());

    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), asList(group1.getId(), group2.getId(),
ANYONE_ID), project.getId()).hasSize(1);
    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(MISSING_ID),
project.getId()).isEmpty());
    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), singletonList(group1.getId()),
123L)).isEmpty();
    assertThat(underTest.selectByGroupIds(dbSession, org.getUuid(), Collections.emptyList(),
project.getId()).isEmpty());
}

@Test
public void selectGlobalPermissionsOfGroup() {

```

```

OrganizationDto org1 = db.organizations().insert();
OrganizationDto org2 = db.organizations().insert();
GroupDto group1 = db.users().insertGroup(org1, "group1");
GroupDto group2 = db.users().insertGroup(org2, "group2");
ComponentDto project = db.components().insertPublicProject(org1);

db.users().insertPermissionOnAnyone(org1, "perm1");
db.users().insertPermissionOnGroup(group1, "perm2");
db.users().insertPermissionOnGroup(group1, "perm3");
db.users().insertPermissionOnGroup(group2, "perm4");
db.users().insertProjectPermissionOnGroup(group1, "perm5", project);
db.users().insertProjectPermissionOnAnyone("perm6", project);

assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, org1.getUuid(),
group1.getId()).containsOnly("perm2", "perm3");
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, org2.getUuid(),
group2.getId()).containsOnly("perm4");
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, org1.getUuid(), null).containsOnly("perm1");

// group1 is not in org2
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, org2.getUuid(), group1.getId()).isEmpty());
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, org2.getUuid(), null).isEmpty());
}

@Test
public void selectProjectPermissionsOfGroup_on_public_project() {
    OrganizationDto org1 = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org1, "group1");
    ComponentDto project1 = db.components().insertPublicProject(org1);
    ComponentDto project2 = db.components().insertPublicProject(org1);

    db.users().insertPermissionOnAnyone(org1, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm4", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm5", project2);
    db.users().insertProjectPermissionOnAnyone("perm6", project1);

    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), group1.getId(),
project1.getId()))
        .containsOnly("perm3", "perm4");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), group1.getId(),
project2.getId()))
        .containsOnly("perm5");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), null, project1.getId()))
        .containsOnly("perm6");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), null, project2.getId()))
        .isEmpty();
}

```



```

}

@Test
public void selectProjectPermissionsOfGroup_on_private_project() {
    OrganizationDto org1 = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org1, "group1");
    ComponentDto project1 = db.components().insertPrivateProject(org1);
    ComponentDto project2 = db.components().insertPrivateProject(org1);

    db.users().insertPermissionOnAnyone(org1, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm4", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm5", project2);

    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), group1.getId(),
project1.getId()))
        .containsOnly("perm3", "perm4");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), group1.getId(),
project2.getId()))
        .containsOnly("perm5");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), null, project1.getId()))
        .isEmpty();
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, org1.getUuid(), null, project2.getId()))
        .isEmpty();
}

@Test
public void selectAllPermissionsByGroupId_on_public_project() {
    OrganizationDto org1 = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org1, "group1");
    ComponentDto project1 = db.components().insertPublicProject(org1);
    ComponentDto project2 = db.components().insertPublicProject(org1);
    db.users().insertPermissionOnAnyone(org1, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm4", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm5", project2);
    db.users().insertProjectPermissionOnAnyone("perm6", project1);

    List<GroupPermissionDto> result = new ArrayList<>();
    underTest.selectAllPermissionsByGroupId(dbSession, org1.getUuid(), group1.getId(), context ->
result.add((GroupPermissionDto) context.getResultObject()));
    assertThat(result).extracting(GroupPermissionDto::getResourceId, GroupPermissionDto::getRole).containsOnly(
        tuple(null, "perm2"),
        tuple(project1.getId(), "perm3"), tuple(project1.getId(), "perm4"), tuple(project2.getId(), "perm5"));
}

```

```

@Test
public void selectAllPermissionsByGroupId_on_private_project() {
    OrganizationDto org1 = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org1, "group1");
    ComponentDto project1 = db.components().insertPrivateProject(org1);
    ComponentDto project2 = db.components().insertPrivateProject(org1);
    db.users().insertPermissionOnAnyone(org1, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm4", project1);
    db.users().insertProjectPermissionOnGroup(group1, "perm5", project2);

    List<GroupPermissionDto> result = new ArrayList<>();
    underTest.selectAllPermissionsByGroupId(dbSession, org1.getUuid(), group1.getId(), context ->
result.add((GroupPermissionDto) context.getResultObject()));
    assertThat(result).extracting(GroupPermissionDto::getResourceId, GroupPermissionDto::getRole).containsOnly(
        tuple(null, "perm2"),
        tuple(project1.getId(), "perm3"), tuple(project1.getId(), "perm4"), tuple(project2.getId(), "perm5"));
}

```

```

@Test
public void selectGroupIdsWithPermissionOnProjectBut_returns_empty_if_project_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    GroupDto group = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group, "foo", project);

    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, 1234, UserRole.USER))
        .isEmpty();
}

```

```

@Test
public void
selectGroupIdsWithPermissionOnProjectBut_returns_only_groups_of_project_which_do_not_have_permission() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    db.users().insertProjectPermissionOnGroup(group2, "p2", project);

    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p2"))
        .containsOnly(group1.getId());
    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p1"))
        .containsOnly(group2.getId());
    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p3"))
        .containsOnly(group1.getId(), group2.getId());
}

```

```

@Test
public void
selectGroupIdsWithPermissionOnProjectBut_does_not_returns_group_AnyOne_of_project_when_it_does_not_hav
e_permission() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    db.users().insertProjectPermissionOnGroup(group2, "p2", project);
    db.users().insertProjectPermissionOnAnyone("p2", project);

    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p2"))
        .containsOnly(group1.getId());
    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p1"))
        .containsOnly(group2.getId());
}

```

```

@Test
public void
selectGroupIdsWithPermissionOnProjectBut_does_not_return_groups_which_have_no_permission_at_all_on_speci
fied_project() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    GroupDto group3 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    db.users().insertProjectPermissionOnGroup(group2, "p2", project);

    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p2"))
        .containsOnly(group1.getId());
    assertThat(underTest.selectGroupIdsWithPermissionOnProjectBut(dbSession, project.getId(), "p1"))
        .containsOnly(group2.getId());
}

```

```

@Test
public void deleteByRootComponentId_on_private_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    GroupDto group2 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPrivateProject(org);
    ComponentDto project2 = db.components().insertPrivateProject(org);
    db.users().insertPermissionOnGroup(group1, "perm1");
    db.users().insertProjectPermissionOnGroup(group1, "perm2", project1);
    db.users().insertProjectPermissionOnGroup(group2, "perm3", project2);
}

```

```

underTest.deleteByRootComponentId(dbSession, project1.getId());
dbSession.commit();

assertThat(db.countSql("select count(id) from group_roles where resource_id=" + project1.getId())).isEqualTo(0);
assertThat(db.countRowsOfTable("group_roles")).isEqualTo(2);
}

@Test
public void deleteByRootComponentId_on_public_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    GroupDto group2 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPublicProject(org);
    ComponentDto project2 = db.components().insertPublicProject(org);
    db.users().insertPermissionOnGroup(group1, "perm1");
    db.users().insertProjectPermissionOnGroup(group1, "perm2", project1);
    db.users().insertProjectPermissionOnGroup(group2, "perm3", project2);
    db.users().insertProjectPermissionOnAnyone("perm4", project1);
    db.users().insertProjectPermissionOnAnyone("perm5", project2);

    underTest.deleteByRootComponentId(dbSession, project1.getId());
    dbSession.commit();

    assertThat(db.countSql("select count(id) from group_roles where resource_id=" + project1.getId())).isEqualTo(0);
    assertThat(db.countRowsOfTable("group_roles")).isEqualTo(3);
}

@Test
public void delete_global_permission_from_group_on_public_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPublicProject(org);
    db.users().insertPermissionOnAnyone(org, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnAnyone("perm4", project1);

    underTest.delete(dbSession, "perm2", group1.getOrganizationUuid(), group1.getId(), null);
    dbSession.commit();

    assertThatNoPermission("perm2");
    assertThat(db.countRowsOfTable("group_roles")).isEqualTo(3);
}

@Test
public void delete_global_permission_from_group_on_private_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);

```

```

ComponentDto project1 = db.components().insertPrivateProject(org);
db.users().insertPermissionOnAnyone(org, "perm1");
db.users().insertPermissionOnGroup(group1, "perm2");
db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);

underTest.delete(dbSession, "perm2", group1.getOrganizationUuid(), group1.getId(), null);
dbSession.commit();

assertThatNoPermission("perm2");
assertThat(db.countRowsOfTable("group_roles")).isEqualTo(2);
}

@Test
public void delete_global_permission_from_anyone_on_public_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPublicProject(org);
    db.users().insertPermissionOnAnyone(org, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnAnyone("perm4", project1);

    underTest.delete(dbSession, "perm1", group1.getOrganizationUuid(), null, null);
    dbSession.commit();

    assertThatNoPermission("perm1");
    assertThat(db.countRowsOfTable("group_roles")).isEqualTo(3);
}

@Test
public void delete_project_permission_from_group_on_private_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPrivateProject(org);
    db.users().insertPermissionOnAnyone(org, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);

    underTest.delete(dbSession, "perm3", group1.getOrganizationUuid(), group1.getId(), project1.getId());
    dbSession.commit();

    assertThatNoPermission("perm3");
    assertThat(db.countRowsOfTable("group_roles")).isEqualTo(2);
}

@Test
public void delete_project_permission_from_group_on_public_project() {
    OrganizationDto org = db.organizations().insert();

```

```

GroupDto group1 = db.users().insertGroup(org);
ComponentDto project1 = db.components().insertPublicProject(org);
db.users().insertPermissionOnAnyone(org, "perm1");
db.users().insertPermissionOnGroup(group1, "perm2");
db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
db.users().insertProjectPermissionOnAnyone("perm4", project1);

underTest.delete(dbSession, "perm3", group1.getOrganizationUuid(), group1.getId(), project1.getId());
dbSession.commit();

assertThatNoPermission("perm3");
assertThat(db.countRowsOfTable("group_roles")).isEqualTo(3);
}

```

```

@Test
public void delete_project_permission_from_anybody_on_private_project() {
    OrganizationDto org = db.organizations().insert();
    GroupDto group1 = db.users().insertGroup(org);
    ComponentDto project1 = db.components().insertPublicProject(org);
    db.users().insertPermissionOnAnyone(org, "perm1");
    db.users().insertPermissionOnGroup(group1, "perm2");
    db.users().insertProjectPermissionOnGroup(group1, "perm3", project1);
    db.users().insertProjectPermissionOnAnyone("perm4", project1);

```

```

    underTest.delete(dbSession, "perm4", group1.getOrganizationUuid(), null, project1.getId());
    dbSession.commit();

    assertThatNoPermission("perm4");
    assertThat(db.countRowsOfTable("group_roles")).isEqualTo(3);
}

```

```

@Test
public void deleteByOrganization_does_not_fail_on_empty_db() {
    underTest.deleteByOrganization(dbSession, "some uuid");
    dbSession.commit();
}

```

```

@Test
public void deleteByOrganization_does_not_fail_if_organization_has_no_group() {
    OrganizationDto organization = db.organizations().insert();

    underTest.deleteByOrganization(dbSession, organization.getUuid());
    dbSession.commit();
}

```

```

@Test
public void deleteByOrganization_deletes_all_groups_of_organization() {
    OrganizationDto organization1 = db.organizations().insert();

```

```

OrganizationDto organization2 = db.organizations().insert();
OrganizationDto organization3 = db.organizations().insert();
insertGroupWithPermissions(organization1);
insertGroupWithPermissions(organization2);
insertGroupWithPermissions(organization3);
insertGroupWithPermissions(organization3);
insertGroupWithPermissions(organization2);
db.users().insertPermissionOnAnyone(organization1, "pop");
db.users().insertPermissionOnAnyone(organization2, "pop");
db.users().insertPermissionOnAnyone(organization3, "pop");

underTest.deleteByOrganization(dbSession, organization2.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable(organization1.getUuid(), organization3.getUuid());

underTest.deleteByOrganization(dbSession, organization1.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable(organization3.getUuid());

underTest.deleteByOrganization(dbSession, organization3.getUuid());
dbSession.commit();
verifyOrganizationUuidsInTable();
}

@Test
public void
deleteByRootComponentIdAndGroupId_deletes_all_permissions_of_group_AnyOne_of_specified_component_if_groupId_is_null() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    GroupDto group = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnAnyone("p1", project);
    db.users().insertProjectPermissionOnGroup(group, "p2", project);
    db.users().insertPermissionOnAnyone(organization, "p3");
    db.users().insertPermissionOnGroup(group, "p4");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId())
        .containsOnly("p1");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group.getId(),
project.getId())
        .containsOnly("p2");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), null))
        .containsOnly("p3");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group.getId())
        .containsOnly("p4");

    int deletedCount = underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), null);

    assertThat(deletedCount).isEqualTo(1);
}

```

```

    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .isEmpty();
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group.getId(),
project.getId()))
        .containsOnly("p2");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), null))
        .containsOnly("p3");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group.getId()))
        .containsOnly("p4");
}

@Test
public void
deleteByRootComponentIdAndGroupId_deletes_all_permissions_of_specified_group_of_specified_component_if_
groupId_is_non_null() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnAnyone("p1", project);
    db.users().insertProjectPermissionOnGroup(group1, "p2", project);
    db.users().insertProjectPermissionOnGroup(group2, "p3", project);
    db.users().insertProjectPermissionOnGroup(group2, "p4", project);
    db.users().insertPermissionOnAnyone(organization, "p5");
    db.users().insertPermissionOnGroup(group1, "p6");
    db.users().insertPermissionOnGroup(group2, "p7");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .containsOnly("p1");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))
        .containsOnly("p2");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId(),
project.getId()))
        .containsOnly("p3", "p4");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), null))
        .containsOnly("p5");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId()))
        .containsOnly("p6");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId()))
        .containsOnly("p7");

    int deletedCount = underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), group1.getId());

    assertThat(deletedCount).isEqualTo(1);
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .containsOnly("p1");
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))

```



```

        .isEmpty();
        assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId(),
project.getId()))
        .containsOnly("p3", "p4");
        assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId()))
        .containsOnly("p6");
        assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId()))
        .containsOnly("p7");

        deletedCount = underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), group2.getId());

        assertThat(deletedCount).isEqualTo(2);
        assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .containsOnly("p1");
        assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))
        .isEmpty();
        assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId(),
project.getId()))
        .isEmpty();
        assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId()))
        .containsOnly("p6");
        assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId()))
        .containsOnly("p7");
    }
}

```

@Test

```

public void deleteByRootComponentIdAndGroupId_has_no_effect_if_component_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);

    assertThat(underTest.deleteByRootComponentIdAndGroupId(dbSession, 1234L, null)).isEqualTo(0);
    assertThat(underTest.deleteByRootComponentIdAndGroupId(dbSession, 1234L, group.getId())).isEqualTo(0);
}

```

@Test

```

public void
deleteByRootComponentIdAndGroupId_has_no_effect_if_component_has_no_group_permission_at_all() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);
    GroupDto group = db.users().insertGroup(organization);

    assertThat(underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), null)).isEqualTo(0);
    assertThat(underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(),
group.getId())).isEqualTo(0);
}

```

@Test

```

public void deleteByRootComponentIdAndGroupId_has_no_effect_if_group_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = randomPublicOrPrivateProject(organization);

    assertThat(underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), 5678)).isEqualTo(0);
}

@Test
public void
deleteByRootComponentIdAndGroupId_has_no_effect_if_component_has_no_group_permission_for_group_AnyOne() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPrivateProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .isEmpty();
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))
        .containsOnly("p1");
    db.users().insertPermissionOnAnyone(organization, "p2");
    db.users().insertPermissionOnGroup(group1, "p3");

    int deletedCount = underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), null);

    assertThat(deletedCount).isEqualTo(0);
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), null, project.getId()))
        .isEmpty();
    assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))
        .containsOnly("p1");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), null))
        .containsOnly("p2");
    assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId()))
        .containsOnly("p3");
}

@Test
public void
deleteByRootComponentIdAndGroupId_has_no_effect_if_component_has_no_group_permission_for_specified_group() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPrivateProject(organization);
    GroupDto group1 = db.users().insertGroup(organization);
    GroupDto group2 = db.users().insertGroup(organization);
    db.users().insertProjectPermissionOnGroup(group1, "p1", project);
    db.users().insertPermissionOnAnyone(organization, "p2");
    db.users().insertPermissionOnGroup(group1, "p3");
}

```

```

int deletedCount = underTest.deleteByRootComponentIdAndGroupId(dbSession, project.getId(), group2.getId());

assertThat(deletedCount).isEqualTo(0);
assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId(),
project.getId()))
    .containsOnly("p1");
assertThat(underTest.selectProjectPermissionsOfGroup(dbSession, organization.getUuid(), group2.getId(),
project.getId()))
    .isEmpty();
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), null))
    .containsOnly("p2");
assertThat(underTest.selectGlobalPermissionsOfGroup(dbSession, organization.getUuid(), group1.getId()))
    .containsOnly("p3");
}

```

```

@Test
public void
deleteByRootComponentIdAndPermission_deletes_all_rows_for_specified_role_of_specified_component() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    GroupDto group = db.users().insertGroup(organization);
    Stream.of("p1", "p2").forEach(permission -> {
        db.users().insertPermissionOnAnyone(organization, permission);
        db.users().insertPermissionOnGroup(group, permission);
        db.users().insertProjectPermissionOnGroup(group, permission, project);
        db.users().insertProjectPermissionOnAnyone(permission, project);
    });
    assertThat(getGlobalPermissionsForAnyone(organization)).containsOnly("p1", "p2");
    assertThat(getGlobalPermissionsForGroup(group)).containsOnly("p1", "p2");
    assertThat(getProjectPermissionsForAnyOne(project)).containsOnly("p1", "p2");
    assertThat(getProjectPermissionsForGroup(project, group)).containsOnly("p1", "p2");

    int deletedRows = underTest.deleteByRootComponentIdAndPermission(dbSession, project.getId(), "p1");

    assertThat(deletedRows).isEqualTo(2);
    assertThat(getGlobalPermissionsForAnyone(organization)).containsOnly("p1", "p2");
    assertThat(getGlobalPermissionsForGroup(group)).containsOnly("p1", "p2");
    assertThat(getProjectPermissionsForAnyOne(project)).containsOnly("p2");
    assertThat(getProjectPermissionsForGroup(project, group)).containsOnly("p2");

    deletedRows = underTest.deleteByRootComponentIdAndPermission(dbSession, project.getId(), "p2");

    assertThat(deletedRows).isEqualTo(2);
    assertThat(getGlobalPermissionsForAnyone(organization)).containsOnly("p1", "p2");
    assertThat(getGlobalPermissionsForGroup(group)).containsOnly("p1", "p2");
    assertThat(getProjectPermissionsForAnyOne(project)).isEmpty();
    assertThat(getProjectPermissionsForGroup(project, group)).isEmpty();
}

```

```

}

@Test
public void
deleteByRootComponentIdAndPermission_has_no_effect_if_component_has_no_group_permission_at_all() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = randomPublicOrPrivateProject(organization);
    db.users().insertPermissionOnAnyone(organization, "p1");
    db.users().insertPermissionOnGroup(group, "p1");

    assertThat(underTest.deleteByRootComponentIdAndPermission(dbSession, project.getId(), "p1")).isEqualTo(0);

    assertThat(getGlobalPermissionsForAnyone(organization)).containsOnly("p1");
    assertThat(getGlobalPermissionsForGroup(group)).containsOnly("p1");
    assertThat(getProjectPermissionsForAnyOne(project)).isEmpty();
    assertThat(getProjectPermissionsForGroup(project, group)).isEmpty();
}

@Test
public void deleteByRootComponentIdAndPermission_has_no_effect_if_component_does_not_exist() {
    OrganizationDto organization = db.organizations().insert();
    ComponentDto project = db.components().insertPublicProject(organization);
    GroupDto group = db.users().insertGroup(organization);
    db.users().insertPermissionOnAnyone(organization, "p1");
    db.users().insertPermissionOnGroup(group, "p1");
    db.users().insertProjectPermissionOnGroup(group, "p1", project);
    db.users().insertProjectPermissionOnAnyone("p1", project);

    assertThat(underTest.deleteByRootComponentIdAndPermission(dbSession, 1324, "p1")).isEqualTo(0);

    assertThat(getGlobalPermissionsForAnyone(organization)).containsOnly("p1");
    assertThat(getGlobalPermissionsForGroup(group)).containsOnly("p1");
    assertThat(getProjectPermissionsForAnyOne(project)).containsOnly("p1");
    assertThat(getProjectPermissionsForGroup(project, group)).containsOnly("p1");
}

@Test
public void
deleteByRootComponentIdAndPermission_has_no_effect_if_component_does_not_have_specified_permission() {
    OrganizationDto organization = db.organizations().insert();
    GroupDto group = db.users().insertGroup(organization);
    ComponentDto project = randomPublicOrPrivateProject(organization);
    db.users().insertPermissionOnAnyone(organization, "p1");
    db.users().insertPermissionOnGroup(group, "p1");

    assertThat(underTest.deleteByRootComponentIdAndPermission(dbSession, project.getId(), "p1")).isEqualTo(0);
}

```

```

private Collection<String> getGlobalPermissionsForAnyone(OrganizationDto organization) {
    return getPermissions("organization_uuid = " + organization.getUuid() + " and group_id is null and resource_id is
null");
}

private Collection<String> getGlobalPermissionsForGroup(GroupDto groupDto) {
    return getPermissions("organization_uuid = " + groupDto.getOrganizationUuid() + " and group_id = " +
groupDto.getId() + " and resource_id is null");
}

private Collection<String> getProjectPermissionsForAnyOne(ComponentDto project) {
    return getPermissions("organization_uuid = " + project.getOrganizationUuid() + " and group_id is null and
resource_id = " + project.getId());
}

private Collection<String> getProjectPermissionsForGroup(ComponentDto project, GroupDto group) {
    return getPermissions("organization_uuid = " + project.getOrganizationUuid() + " and group_id = " +
group.getId() + " and resource_id = " + project.getId());
}

private Collection<String> getPermissions(String whereClauses) {
    return db
        .select(dbSession, "select role from group_roles where " + whereClauses)
        .stream()
        .flatMap(map -> map.entrySet().stream())
        .map(entry -> (String) entry.getValue())
        .collect(MoreCollectors.toList());
}

private ComponentDto randomPublicOrPrivateProject(OrganizationDto organization) {
    return new Random().nextBoolean() ? db.components().insertPublicProject(organization) :
db.components().insertPrivateProject(organization);
}

private PermissionQuery.Builder newQuery() {
    return PermissionQuery.builder().setOrganizationUuid(db.getDefaultOrganization().getUuid());
}

private void verifyOrganizationUuidsInTable(String... organizationUuids) {
    assertThat(db.select("select distinct organization_uuid as \"organizationUuid\" from group_roles")
        .extracting((row) -> (String) row.get("organizationUuid"))
        .containsOnly(organizationUuids);
}

private int insertGroupWithPermissions(OrganizationDto organization1) {
    GroupDto group = db.users().insertGroup(organization1);
    db.users().insertPermissionOnGroup(group, "foo");
}

```

```

    db.users().insertPermissionOnGroup(group, "bar");
    db.users().insertPermissionOnGroup(group, "doh");
    return group.getId();
}

private void assertThatNoPermission(String permission) {
    assertThat(db.countSql("select count(id) from group_roles where role='" + permission + "'")).isEqualTo(0);
}

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import java.util.List;
import java.util.Map;
import javax.annotation.Nullable;
import org.apache.ibatis.annotations.Param;
import org.apache.ibatis.session.ResultHandler;
import org.apache.ibatis.session.RowBounds;
import org.sonar.db.permission.PermissionQuery;

/**
 * @since 3.7
 */
public interface PermissionTemplateMapper {

    void insert(PermissionTemplateDto permissionTemplate);

    void update(PermissionTemplateDto permissionTemplate);
}

```

```

void deleteById(long templateId);

void deleteByIds(@Param("templateIds") List<Long> templateIds);

void deleteUserPermissionsByTemplateId(long templateId);

void deleteUserPermissionsByTemplateIds(@Param("templateIds") List<Long> templateIds);

void deleteUserPermissionsByOrganization(@Param("organizationUuid") String organizationUuid,
@Param("userId") int userId);

void deleteUserPermissionsByUserId(@Param("userId") int userId);

void deleteUserPermission(PermissionTemplateUserDto permissionTemplateUser);

void deleteGroupPermissionsByTemplateId(long templateId);

void deleteGroupPermissionsByTemplateIds(@Param("templateIds") List<Long> templateIds);

void deleteGroupPermission(PermissionTemplateGroupDto permissionTemplateGroup);

PermissionTemplateDto selectByUuid(String templateUuid);

List<PermissionTemplateUserDto> selectUserPermissionsByTemplateIdAndUserLogins(@Param("templateId")
long templateId, @Param("logins") List<String> logins);

List<PermissionTemplateGroupDto>
selectGroupPermissionsByTemplateIdAndGroupNames(@Param("templateId") long templateId, @Param("groups")
List<String> groups);

void insertUserPermission(PermissionTemplateUserDto permissionTemplateUser);

void insertGroupPermission(PermissionTemplateGroupDto permissionTemplateGroup);

void deleteByGroupId(int groupId);

PermissionTemplateDto selectByName(@Param("organizationUuid") String organizationUuid, @Param("name")
String name);

List<String> selectUserLoginsByQueryAndTemplate(@Param("query") PermissionQuery query,
@Param("templateId") long templateId, RowBounds rowBounds);

int countUserLoginsByQueryAndTemplate(@Param("query") PermissionQuery query, @Param("templateId") long
templateId);

List<String> selectGroupNamesByQueryAndTemplate(@Param("templateId") long templateId, @Param("query")
PermissionQuery query, RowBounds rowBounds);

```

```

int countGroupNamesByQueryAndTemplate(@Param("organizationUuid") String organizationUuid,
@Param("query") PermissionQuery query, @Param("templateId") long templateId);

List<PermissionTemplateDto> selectAll(@Param("organizationUuid") String organizationUuid, @Nullable
@Param("upperCaseNameLikeSql") String upperCaseNameLikeSql);

void usersCountByTemplateIdAndPermission(Map<String, Object> parameters,
ResultHandler<CountByTemplateAndPermissionDto> resultHandler);

void groupsCountByTemplateIdAndPermission(Map<String, Object> parameters,
ResultHandler<CountByTemplateAndPermissionDto> resultHandler);

List<String> selectPotentialPermissionsByUserIdAndTemplateId(@Param("userId") @Nullable Integer
currentUserId, @Param("templateId") long templateId);

int countGroupsWithPermission(@Param("templateId") long templateId, @Param("permission") String permission,
@Nullable @Param("groupId") Integer groupId);

List<Long> selectTemplateIdsByOrganization(@Param("organizationUuid") String organizationUuid);

List<PermissionTemplateGroupDto> selectAllGroupPermissionTemplatesByGroupId(@Param("groupId") Long
groupId);

}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission;

import java.util.Collection;
import java.util.List;
import java.util.Set;

```



```

import javax.annotation.Nullable;
import org.sonar.db.Dao;
import org.sonar.db.DbSession;

import static org.sonar.db.DatabaseUtils.executeLargeInputs;
import static org.sonar.db.DatabaseUtils.executeLargeInputsIntoSet;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER;
import static org.sonar.db.permission.OrganizationPermission.ADMINISTER_QUALITY_PROFILES;

/**
 * The SQL requests used to verify authorization (the permissions
 * granted to users)
 *
 * @see GroupPermissionDao for CRUD of table group_roles
 * @see UserPermissionDao for CRUD of table user_roles
 */
public class AuthorizationDao implements Dao {

    /**
     * Loads all the permissions granted to logged-in user for the specified organization
     */
    public Set<String> selectOrganizationPermissions(DbSession dbSession, String organizationUuid, int userId) {
        return mapper(dbSession).selectOrganizationPermissions(organizationUuid, userId);
    }

    /**
     * Loads all the permissions granted to anonymous user for the specified organization
     */
    public Set<String> selectOrganizationPermissionsOfAnonymous(DbSession dbSession, String organizationUuid) {
        return mapper(dbSession).selectOrganizationPermissionsOfAnonymous(organizationUuid);
    }

    /**
     * Loads all the permissions granted to logged-in user for the specified project <strong>stored in *_ROLES
     * tables</strong>.
     * An empty Set is returned if user has no permissions on the project.
     *
     * <strong>This method does not support public components</strong>
     */
    public Set<String> selectProjectPermissions(DbSession dbSession, String projectUuid, long userId) {
        return mapper(dbSession).selectProjectPermissions(projectUuid, userId);
    }

    /**
     * Loads all the permissions granted to anonymous for the specified project <strong>stored in *_ROLES
     * tables</strong>.
     * An empty Set is returned if anonymous user has no permissions on the project.
     */

```

```

* <strong>This method does not support public components</strong>
*/
public Set<String> selectProjectPermissionsOfAnonymous(DbSession dbSession, String projectUuid) {
    return mapper(dbSession).selectProjectPermissionsOfAnonymous(projectUuid);
}

/**
 * The number of users who will still have the permission if the group { @code excludedGroupId}
 * is deleted. The anyone virtual group is not taken into account.
 */
public int countUsersWithGlobalPermissionExcludingGroup(DbSession dbSession, String organizationUuid,
    String permission, int excludedGroupId) {
    return mapper(dbSession).countUsersWithGlobalPermissionExcludingGroup(organizationUuid, permission,
excludedGroupId);
}

/**
 * The number of users who will still have the permission if the user { @code excludedUserId}
 * is deleted. The anyone virtual group is not taken into account.
 */
public int countUsersWithGlobalPermissionExcludingUser(DbSession dbSession, String organizationUuid,
    String permission, int excludedUserId) {
    return mapper(dbSession).countUsersWithGlobalPermissionExcludingUser(organizationUuid, permission,
excludedUserId);
}

/**
 * The number of users who will still have the permission if the user { @code userId}
 * is removed from group { @code groupId}. The anyone virtual group is not taken into account.
 * Contrary to { @link #countUsersWithGlobalPermissionExcludingUser(DbSession, String, String, int)}, user
 * still exists and may have the permission directly or through other groups.
 */
public int countUsersWithGlobalPermissionExcludingGroupMember(DbSession dbSession, String
organizationUuid,
    String permission, int groupId, int userId) {
    return mapper(dbSession).countUsersWithGlobalPermissionExcludingGroupMember(organizationUuid,
permission, groupId, userId);
}

/**
 * The number of users who will still have the permission if the permission { @code permission}
 * is removed from user { @code userId}. The anyone virtual group is not taken into account.
 * Contrary to { @link #countUsersWithGlobalPermissionExcludingUser(DbSession, String, String, int)}, user
 * still exists and may have the permission through groups.
 */
public int countUsersWithGlobalPermissionExcludingUserPermission(DbSession dbSession, String
organizationUuid,
    String permission, int userId) {

```

```

    return mapper(dbSession).countUsersWithGlobalPermissionExcludingUserPermission(organizationUuid,
permission, userId);
}

/**
 * The UUIDs of all the organizations in which the specified user has the specified global permission. An empty
 * set is returned if user or permission do not exist. An empty set is also returned if the user is not involved
 * in any organization.
 * <br/>
 * Group membership is taken into account. Anonymous privileges are ignored.
 */
public Set<String> selectOrganizationUuidsOfUserWithGlobalPermission(DbSession dbSession, int userId, String
permission) {
    return mapper(dbSession).selectOrganizationUuidsOfUserWithGlobalPermission(userId, permission);
}

/**
 * @deprecated replaced by { @link #keepAuthorizedProjectUuids(DbSession, Collection, Integer, String) }
 */
@Deprecated
public Set<Long> keepAuthorizedProjectIds(DbSession dbSession, Collection<Long> componentIds, @Nullable
Integer userId, String permission) {
    return executeLargeInputsIntoSet(
        componentIds,
        partition -> {
            if (userId == null) {
                return mapper(dbSession).keepAuthorizedProjectIdsForAnonymous(permission, partition);
            }
            return mapper(dbSession).keepAuthorizedProjectIdsForUser(userId, permission, partition);
        },
        partitionSize -> partitionSize / 2);
}

public Set<String> keepAuthorizedProjectUuids(DbSession dbSession, Collection<String> projectUuids,
@Nullable Integer userId, String permission) {
    return executeLargeInputsIntoSet(
        projectUuids,
        partition -> {
            if (userId == null) {
                return mapper(dbSession).keepAuthorizedProjectUuidsForAnonymous(permission, partition);
            }
            return mapper(dbSession).keepAuthorizedProjectUuidsForUser(userId, permission, partition);
        },
        partitionSize -> partitionSize / 2);
}

/**
 * Keep only authorized user that have the given permission on a given project.

```

```

* Please Note that if the permission is 'Anyone' is NOT taking into account by this method.
*/
public Collection<Integer> keepAuthorizedUsersForRoleAndProject(DbSession dbSession, Collection<Integer>
userIds, String role, long projectId) {
    return executeLargeInputs(
        userIds,
        partitionOfIds -> mapper(dbSession).keepAuthorizedUsersForRoleAndProject(role, projectId, partitionOfIds),
        partitionSize -> partitionSize / 3);
}

public List<String> selectQualityProfileAdministratorLogins(DbSession dbSession) {
    return mapper(dbSession).selectLoginsWithGlobalPermission(ADMINISTER_QUALITY_PROFILES.getKey());
}

/**
 * Used by license notifications
 */
public List<String> selectGlobalAdministratorLogins(DbSession dbSession) {
    return mapper(dbSession).selectLoginsWithGlobalPermission(ADMINISTER.getKey());
}

public Set<String> keepAuthorizedLoginsOnProject(DbSession dbSession, Set<String> logins, String projectKey,
String permission) {
    return executeLargeInputsIntoSet(
        logins,
        partitionOfLogins -> mapper(dbSession).keepAuthorizedLoginsOnProject(partitionOfLogins, projectKey,
permission),
        partitionSize -> partitionSize / 3);
}

private static AuthorizationMapper mapper(DbSession dbSession) {
    return dbSession.getMapper(AuthorizationMapper.class);
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.

```

```

*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.index;

import java.util.function.Predicate;
import javax.annotation.concurrent.Immutable;
import org.sonar.server.es.IndexType;

import static java.util.Objects.requireNonNull;

@Immutable
public final class AuthorizationScope {
    private final IndexType indexType;
    private final Predicate<PermissionIndexerDao.Dto> projectPredicate;

    public AuthorizationScope(IndexType indexType, Predicate<PermissionIndexerDao.Dto> projectPredicate) {
        this.indexType = AuthorizationTypeSupport.getAuthorizationIndexType(indexType);
        this.projectPredicate = requireNonNull(projectPredicate);
    }

    /**
     * Identifier of the authorization type (in the same index than the original IndexType, passed into the constructor).
     */
    public IndexType getIndexType() {
        return indexType;
    }

    /**
     * Predicates that filters the projects to be involved in
     * authorization.
     */
    public Predicate<PermissionIndexerDao.Dto> getProjectPredicate() {
        return projectPredicate;
    }
}

/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*

```

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
import React from 'react';
import PropTypes from 'prop-types';
import NameCell from './NameCell';
import PermissionCell from './PermissionCell';
import ActionsCell from './ActionsCell';
import { PermissionTemplateType, CallbackType } from './propTypes';

export default class ListItem extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    permissionTemplate: PermissionTemplateType.isRequired,
    topQualifiers: PropTypes.array.isRequired,
    refresh: CallbackType
  };

  render() {
    const permissions = this.props.permissionTemplate.permissions.map(p => (
      <PermissionCell key={p.key} permission={p} />
    ));

    return (
      <tr data-id={this.props.permissionTemplate.id} data-name={this.props.permissionTemplate.name}>
        <NameCell
          organization={this.props.organization}
          permissionTemplate={this.props.permissionTemplate}
          topQualifiers={this.props.topQualifiers}
        />

        {permissions}

        <td className="nowrap thin text-right">
          <ActionsCell
            organization={this.props.organization}
            permissionTemplate={this.props.permissionTemplate}
            topQualifiers={this.props.topQualifiers}
            refresh={this.props.refresh}
          />
        </td>
      </tr>
    );
  }
}
```

);
}
}

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain

separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the

origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or

* modify it under the terms of the GNU Lesser General Public

* License as published by the Free Software Foundation; either

* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,

* but WITHOUT ANY WARRANTY; without even the implied warranty of

* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License

* along with this program; if not, write to the Free Software Foundation,

* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

package org.sonar.db.permission.template;

import java.util.Date;

import org.apache.commons.lang.math.RandomUtils;

import org.sonar.core.permission.ProjectPermissions;

import org.sonar.core.util.Uuids;

import static org.apache.commons.lang.RandomStringUtils.randomAlphanumeric;

import static org.apache.commons.lang.RandomStringUtils.randomAscii;

public class PermissionTemplateTesting {

public static PermissionTemplateDto newPermissionTemplateDto() {

return new PermissionTemplateDto()

.setName(randomAlphanumeric(60))

.setDescription(randomAscii(500))

.setOrganizationUuid(randomAlphanumeric(40))

```

        .setUuid(Uuids.create())
        .setCreatedAt(new Date())
        .setUpdatedAt(new Date());
    }

    public static PermissionTemplateUserDto newPermissionTemplateUserDto() {
        return new PermissionTemplateUserDto()
            .setPermission(ProjectPermissions.ALL.get(RandomUtils.nextInt(ProjectPermissions.ALL.size())))
            .setCreatedAt(new Date())
            .setUpdatedAt(new Date());
    }

    public static PermissionTemplateGroupDto newPermissionTemplateGroupDto() {
        return new PermissionTemplateGroupDto()
            .setPermission(ProjectPermissions.ALL.get(RandomUtils.nextInt(ProjectPermissions.ALL.size())))
            .setCreatedAt(new Date())
            .setUpdatedAt(new Date());
    }

    public static PermissionTemplateCharacteristicDto newPermissionTemplateCharacteristicDto() {
        return new PermissionTemplateCharacteristicDto()
            .setPermission(ProjectPermissions.ALL.get(RandomUtils.nextInt(ProjectPermissions.ALL.size())))
            .setWithProjectCreator(RandomUtils.nextBoolean())
            .setCreatedAt(System.currentTimeMillis())
            .setUpdatedAt(System.currentTimeMillis());
    }
}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws;

```

```

import com.google.common.collect.Multimap;
import com.google.common.collect.Ordering;
import com.google.common.collect.TreeMultimap;
import com.google.common.io.Resources;
import java.util.List;
import java.util.Optional;
import org.sonar.api.security.DefaultGroups;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.api.utils.Paging;
import org.sonar.core.util.stream.MoreCollectors;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.GroupPermissionDto;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.user.GroupDto;
import org.sonar.server.permission.ProjectId;
import org.sonar.server.user.UserSession;
import org.sonarqube.ws.Permissions.Group;
import org.sonarqube.ws.Permissions.WsGroupsResponse;

import static java.util.Collections.emptyList;
import static org.sonar.core.util.Protobuf.setNullable;
import static org.sonar.db.permission.PermissionQuery.DEFAULT_PAGE_SIZE;
import static org.sonar.db.permission.PermissionQuery.RESULTS_MAX_SIZE;
import static org.sonar.db.permission.PermissionQuery.SEARCH_QUERY_MIN_LENGTH;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkProjectAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createOrganizationParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createPermissionParameter;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createProjectParameters;
import static org.sonar.server.ws.WsUtils.writeProtobuf;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;

public class GroupsAction implements PermissionsWsAction {
    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionWsSupport support;

    public GroupsAction(DbClient dbClient, UserSession userSession, PermissionWsSupport support) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.support = support;
    }
}

```

```

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("groups")
        .setSince("5.2")
        .setInternal(true)
        .setDescription("Lists the groups with their permissions.<br>" +
            "This service defaults to global permissions, but can be limited to project permissions by providing project id or project key.<br>" +
            "This service defaults to all groups, but can be limited to groups with a specific permission by providing the desired permission.<br>" +
            "Requires one of the following permissions:" +
            "<ul>" +
            "<li>'Administer System'</li>" +
            "<li>'Administer' rights on the specified project</li>" +
            "</ul>")
        .addPagingParams(DEFAULT_PAGE_SIZE, RESULTS_MAX_SIZE)
        .setResponseExample(Resources.getResource(getClass(), "groups-example.json"))
        .setHandler(this);

    action.createSearchQuery("sonar", "names")
        .setDescription("Limit search to group names that contain the supplied string. When this parameter is not set, only groups having at least one permission are returned.")
        .setMinimumLength(SEARCH_QUERY_MIN_LENGTH);

    createOrganizationParameter(action).setSince("6.2");
    createPermissionParameter(action).setRequired(false);
    createProjectParameters(action);
}

```

```

@Override
public void handle(Request request, Response response) throws Exception {
    try (DbSession dbSession = dbClient.openSession(false)) {
        OrganizationDto org = support.findOrganization(dbSession, request.param(PARAM_ORGANIZATION));
        Optional<ProjectId> projectId = support.findProjectId(dbSession, request);
        checkProjectAdmin(userSession, org.getUuid(), projectId);

        PermissionQuery query = buildPermissionQuery(request, org, projectId);
        // TODO validatePermission(groupsRequest.getPermission(), wsProjectRef);
        List<GroupDto> groups = findGroups(dbSession, org, query);
        int total = dbClient.groupPermissionDao().countGroupsByQuery(dbSession, query);
        List<GroupPermissionDto> groupsWithPermission = findGroupPermissions(dbSession, org, groups, projectId);
        Paging paging =
            Paging.forPageIndex(request.mandatoryParamAsInt(Param.PAGE)).withPageSize(query.getPageSize()).andTotal(total);
        WsGroupsResponse groupsResponse = buildResponse(groups, groupsWithPermission, paging);
        writeProtobuf(groupsResponse, request, response);
    }
}

```

```

}

private static PermissionQuery buildPermissionQuery(Request request, OrganizationDto org, Optional<ProjectId>
project) {
    String textQuery = request.param(Param.TEXT_QUERY);
    PermissionQuery.Builder permissionQuery = PermissionQuery.builder()
        .setOrganizationUuid(org.getUuid())
        .setPermission(request.param(PARAM_PERMISSION))
        .setPageIndex(request.mandatoryParamAsInt(Param.PAGE))
        .setPageSize(request.mandatoryParamAsInt(Param.PAGE_SIZE))
        .setSearchQuery(textQuery);
    if (project.isPresent()) {
        permissionQuery.setComponentUuid(project.get().getUuid());
    }
    if (textQuery == null) {
        permissionQuery.withAtLeastOnePermission();
    }
    return permissionQuery.build();
}

```

```

private static WsGroupsResponse buildResponse(List<GroupDto> groups, List<GroupPermissionDto>
groupPermissions, Paging paging) {
    Multimap<Integer, String> permissionsByGroupId = TreeMultimap.create();
    groupPermissions.forEach(groupPermission -> permissionsByGroupId.put(groupPermission.getGroupId(),
groupPermission.getRole()));
    WsGroupsResponse.Builder response = WsGroupsResponse.newBuilder();

    groups.forEach(group -> {
        Group.Builder wsGroup = response.addGroupsBuilder()
            .setName(group.getName());
        if (group.getId() != 0) {
            wsGroup.setId(String.valueOf(group.getId()));
        }
        setNullable(group.getDescription(), wsGroup::setDescription);
        wsGroup.addAllPermissions(permissionsByGroupId.get(group.getId()));
    });

    response.getPagingBuilder()
        .setPageIndex(paging.pageIndex())
        .setPageSize(paging.pageSize())
        .setTotal(paging.total());

    return response.build();
}

```

```

private List<GroupDto> findGroups(DbSession dbSession, OrganizationDto org, PermissionQuery dbQuery) {
    List<String> orderedNames = dbClient.groupPermissionDao().selectGroupNamesByQuery(dbSession, dbQuery);
    List<GroupDto> groups = dbClient.groupDao().selectByNames(dbSession, org.getUuid(), orderedNames);
}

```

```

    if (orderedNames.contains(DefaultGroups.ANYONE)) {
        groups.add(0, new
GroupDto().setId(0).setName(DefaultGroups.ANYONE).setOrganizationUuid(org.getUuid()));
    }
    return Ordering.explicit(orderedNames).onResultOf(GroupDto::getName).immutableSortedCopy(groups);
}

private List<GroupPermissionDto> findGroupPermissions(DbSession dbSession, OrganizationDto org,
List<GroupDto> groups, Optional<ProjectId> project) {
    if (groups.isEmpty()) {
        return emptyList();
    }
    List<Integer> ids = groups.stream().map(GroupDto::getId).collect(MoreCollectors.toList(groups.size()));
    return dbClient.groupPermissionDao().selectByGroupIds(dbSession, org.getUuid(), ids, project.isPresent() ?
project.getId().getId() : null);
}
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
@ParametersAreNonnullByDefault
package org.sonar.core.permission;

import javax.annotation.ParametersAreNonnullByDefault;
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either

```



```
* version 3 of the License, or (at your option) any later version.  
*  
* This program is distributed in the hope that it will be useful,  
* but WITHOUT ANY WARRANTY; without even the implied warranty of  
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU  
* Lesser General Public License for more details.  
*  
* You should have received a copy of the GNU Lesser General Public License  
* along with this program; if not, write to the Free Software Foundation,  
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.  
*/
```

```
package org.sonar.db.permission.template;
```

```
import java.util.Collections;  
import org.junit.Rule;  
import org.junit.Test;  
import org.sonar.api.utils.System2;  
import org.sonar.db.DbSession;  
import org.sonar.db.DbTester;  
import org.sonar.db.organization.OrganizationDto;  
import org.sonar.db.user.UserDto;
```

```
import static java.util.Arrays.asList;  
import static java.util.Collections.singletonList;  
import static org.assertj.core.api.Assertions.assertThat;  
import static org.assertj.core.api.Assertions.tuple;  
import static org.sonar.api.web.UserRole.ADMIN;  
import static org.sonar.api.web.UserRole.CODEVIEWER;  
import static org.sonar.api.web.UserRole.USER;  
import static org.sonar.db.permission.PermissionQuery.builder;
```

```
public class UserWithPermissionTemplateDaoTest {
```

```
    @Rule
```

```
    public DbTester db = DbTester.create(System2.INSTANCE);
```

```
    private DbSession dbSession = db.getSession();
```

```
    private PermissionTemplateDao underTest = db.getDbClient().permissionTemplateDao();
```

```
    @Test
```

```
    public void select_logins() {
```

```
        OrganizationDto organization = db.organizations().insert();
```

```
        UserDto user1 = db.users().insertUser();
```

```
        UserDto user2 = db.users().insertUser();
```

```
        UserDto user3 = db.users().insertUser();
```

```
        db.organizations().addMember(organization, user1, user2, user3);
```

```
        PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
```

```

db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, ADMIN);
db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, CODEVIEWER);
db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);
PermissionTemplateDto anotherPermissionTemplate = db.permissionTemplates().insertTemplate();
db.permissionTemplates().addUserToTemplate(anotherPermissionTemplate, user1, USER);

assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
    builder().setOrganizationUuid(organization.getUuid()).build(),
    permissionTemplate.getId()))
    .containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin(), user3.getLogin());
assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setPermission(USER).build(),
    permissionTemplate.getId()))
    .containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
}

@Test
public void return_no_logins_on_unknown_template_key() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = db.users().insertUser();
    db.organizations().addMember(organization, user);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user, USER);

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
builder().setOrganizationUuid(organization.getUuid()).setPermission(USER).withAtLeastOnePermission().build(),
999L))
        .isEmpty();
}

@Test
public void select_only_logins_with_permission() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();
    db.organizations().addMember(organization, user1, user2, user3);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, ADMIN);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, CODEVIEWER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);
    PermissionTemplateDto anotherPermissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(anotherPermissionTemplate, user1, USER);

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
builder().setOrganizationUuid(organization.getUuid()).setPermission(USER).withAtLeastOnePermission().build(),

```

```

    permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
    }

@Test
public void select_only_enable_users() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user = db.users().insertUser();
    UserDto disabledUser = db.users().insertUser(u -> u.setActive(false));
    db.organizations().addMember(organization, user, disabledUser);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user, USER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, disabledUser, USER);

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
        builder().setOrganizationUuid(organization.getUuid()).setPermission(USER).build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user.getLogin());
    }

@Test
public void search_by_user_name() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = db.users().insertUser(u -> u.setName("User1"));
    UserDto user2 = db.users().insertUser(u -> u.setName("User2"));
    UserDto user3 = db.users().insertUser(u -> u.setName("User3"));
    db.organizations().addMember(organization, user1, user2, user3);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(
        dbSession,
        builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setPermission(USER).setSearchQuery("SEr1").build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user1.getLogin());

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(
        dbSession,
        builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setPermission(USER).setSearchQuery("user").build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
    }

@Test
public void should_be_sorted_by_user_name() {

```

```

OrganizationDto organization = db.organizations().insert();
UserDto user1 = db.users().insertUser(u -> u.setName("User3"));
UserDto user2 = db.users().insertUser(u -> u.setName("User1"));
UserDto user3 = db.users().insertUser(u -> u.setName("User2"));
db.organizations().addMember(organization, user1, user2, user3);
PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);

assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
    builder().setOrganizationUuid(organization.getUuid()).build(), permissionTemplate.getId()))
    .containsExactly(user2.getLogin(), user3.getLogin(), user1.getLogin());
}

@Test
public void should_be_paginated() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = db.users().insertUser(u -> u.setName("User1"));
    UserDto user2 = db.users().insertUser(u -> u.setName("User2"));
    UserDto user3 = db.users().insertUser(u -> u.setName("User3"));
    db.organizations().addMember(organization, user1, user2, user3);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);

    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
        builder().setOrganizationUuid(organization.getUuid()).setPageIndex(1).setPageSize(2).build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user1.getLogin(), user2.getLogin());
    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
        builder().setOrganizationUuid(organization.getUuid()).setPageIndex(2).setPageSize(2).build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user3.getLogin());
    assertThat(underTest.selectUserLoginsByQueryAndTemplate(dbSession,
        builder().setOrganizationUuid(organization.getUuid()).setPageIndex(3).setPageSize(1).build(),
        permissionTemplate.getId()))
        .containsExactlyInAnyOrder(user3.getLogin());
}

@Test
public void count_users() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();
    db.organizations().addMember(organization, user1, user2, user3);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);

```

```

db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);

assertThat(underTest.countUserLoginsByQueryAndTemplate(dbSession,
    builder().setOrganizationUuid(organization.getUuid()).build(), permissionTemplate.getId()))
    .isEqualTo(3);
assertThat(underTest.countUserLoginsByQueryAndTemplate(dbSession,
builder().setOrganizationUuid(organization.getUuid()).withAtLeastOnePermission().setPermission("user").build(), p
ermissionTemplate.getId()))
    .isEqualTo(2);
}

@Test
public void select_user_permission_templates_by_template_and_logins() {
    OrganizationDto organization = db.organizations().insert();
    UserDto user1 = db.users().insertUser();
    UserDto user2 = db.users().insertUser();
    UserDto user3 = db.users().insertUser();
    db.organizations().addMember(organization, user1, user2, user3);
    PermissionTemplateDto permissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, USER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, ADMIN);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user1, CODEVIEWER);
    db.permissionTemplates().addUserToTemplate(permissionTemplate, user2, USER);
    PermissionTemplateDto anotherPermissionTemplate = db.permissionTemplates().insertTemplate();
    db.permissionTemplates().addUserToTemplate(anotherPermissionTemplate, user1, USER);

    assertThat(underTest.selectUserPermissionsByTemplateIdAndUserLogins(dbSession,
permissionTemplate.getId(), singletonList(user1.getLogin())))
        .extracting(PermissionTemplateUserDto::getUserLogin, PermissionTemplateUserDto::getPermission)
        .containsExactlyInAnyOrder(
            tuple(user1.getLogin(), USER),
            tuple(user1.getLogin(), ADMIN),
            tuple(user1.getLogin(), CODEVIEWER));

    assertThat(underTest.selectUserPermissionsByTemplateIdAndUserLogins(dbSession,
permissionTemplate.getId(), asList(user1.getLogin(), user2.getLogin(), user2.getLogin())))
        .extracting(PermissionTemplateUserDto::getUserLogin, PermissionTemplateUserDto::getPermission)
        .containsExactlyInAnyOrder(
            tuple(user1.getLogin(), USER),
            tuple(user1.getLogin(), ADMIN),
            tuple(user1.getLogin(), CODEVIEWER),
            tuple(user2.getLogin(), USER));

    assertThat(underTest.selectUserPermissionsByTemplateIdAndUserLogins(dbSession,
permissionTemplate.getId(), singletonList("unknown")))
        .isEmpty();
    assertThat(underTest.selectUserPermissionsByTemplateIdAndUserLogins(dbSession,
permissionTemplate.getId(), Collections.emptyList()))
        .isEmpty();
    assertThat(underTest.selectUserPermissionsByTemplateIdAndUserLogins(dbSession, 123L,

```

```

singletonList(user1.getLogin()))).isEmpty();
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.Optional;
import javax.annotation.Nullable;
import javax.annotation.concurrent.Immutable;
import org.sonar.db.organization.DefaultTemplates;

import static java.util.Objects.requireNonNull;
import static java.util.Optional.ofNullable;

public interface DefaultTemplatesResolver {
    /**
     * Resolve the effective default templates uuid for the specified {@link DefaultTemplates}.
     * <ul>
     * <li>{@link ResolvedDefaultTemplates#project} is always the same as {@link
DefaultTemplates#projectUuid}</li>
     * <li>when Governance is not installed, {@link ResolvedDefaultTemplates#view} is always {@code null}</li>
     * <li>when Governance is not installed, {@link ResolvedDefaultTemplates#view} is {@link
DefaultTemplates#viewUuid}
     *     when it is non {@code null}, otherwise it is {@link DefaultTemplates#projectUuid}</li>
     * </ul>
     */
    ResolvedDefaultTemplates resolve(DefaultTemplates defaultTemplates);

    @Immutable
    final class ResolvedDefaultTemplates {

```

```

private final String project;
private final String view;

ResolvedDefaultTemplates(String project, @Nullable String view) {
    this.project = requireNonNull(project, "project can't be null");
    this.view = view;
}

public String getProject() {
    return project;
}

public Optional<String> getView() {
    return ofNullable(view);
}
}
}
{
    "paging": {
        "pageIndex": 1,
        "pageSize": 20,
        "total": 2
    },
    "users": [
        {
            "login": "login-1",
            "name": "name-1",
            "email": "email-1",
            "permissions": [
                "scan"
            ]
        },
        {
            "login": "login-2",
            "name": "name-2",
            "email": "email-2",
            "permissions": [
                "scan"
            ]
        }
    ]
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or

```

* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.server.permission.ws;
```

```
import com.google.common.collect.HashBasedTable;  
import java.util.Collections;  
import org.junit.Rule;  
import org.junit.Test;  
import org.junit.rules.ExpectedException;
```

```
public class SearchProjectPermissionsDataTest {  
    @Rule  
    public ExpectedException expectedException = ExpectedException.none();
```

```
    @Test  
    public void fail_if_no_projects() {  
        expectedException.expect(IllegalStateException.class);
```

```
        SearchProjectPermissionsData.newBuilder()  
            .groupCountByProjectIdAndPermission(HashBasedTable.create())  
            .userCountByProjectIdAndPermission(HashBasedTable.create())  
            .build();  
    }
```

```
    @Test  
    public void fail_if_no_group_count() {  
        expectedException.expect(IllegalStateException.class);
```

```
        SearchProjectPermissionsData.newBuilder()  
            .rootComponents(Collections.emptyList())  
            .userCountByProjectIdAndPermission(HashBasedTable.create())  
            .build();  
    }
```

```
    @Test  
    public void fail_if_no_user_count() {  
        expectedException.expect(IllegalStateException.class);
```



```

SearchProjectPermissionsData.newBuilder()
  .rootComponents(Collections.emptyList())
  .groupCountByProjectIdAndPermission(HashBasedTable.create())
  .build();
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
import { lazyLoad } from '.././components/lazyLoad';

const routes = [
  {
    indexRoute: { component: lazyLoad(() => import('./components/AppContainer')) }
  }
];

export default routes;
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

```

* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/

```
package org.sonar.db.permission.template;
```

```
import java.util.Date;  
import javax.annotation.CheckForNull;  
import javax.annotation.Nullable;
```

```
public class PermissionTemplateDto {
```

```
    private Long id;  
    private String name;  
    private String organizationUuid;  
    private String uuid;  
    private String description;  
    private String keyPattern;  
    private Date createdAt;  
    private Date updatedAt;
```

```
    public Long getId() {  
        return id;  
    }
```

```
    public PermissionTemplateDto setId(Long id) {  
        this.id = id;  
        return this;  
    }
```

```
    public String getOrganizationUuid() {  
        return organizationUuid;  
    }
```

```
    public PermissionTemplateDto setOrganizationUuid(String s) {  
        this.organizationUuid = s;  
        return this;  
    }
```

```
    public String getName() {  
        return name;  
    }
```

```
    public PermissionTemplateDto setName(String name) {  
        this.name = name;  
        return this;  
    }
```

```

}

/**
 * @deprecated since 5.2 use { @link #getUuid()}
 */
@Deprecated
public String getKee() {
    return uuid;
}

/**
 * @deprecated since 5.2 use { @link #setUuid(String)}
 */
@Deprecated
public PermissionTemplateDto setKee(String kee) {
    this.uuid = kee;
    return this;
}

/**
 * @since 5.2 the kee column is a proper uuid. Before that it was build on the name + timestamp
 */
public String getUuid() {
    return uuid;
}

/**
 * @since 5.2 the kee column is a proper uuid. Before it was build on the name + timestamp
 */
public PermissionTemplateDto setUuid(String uuid) {
    this.uuid = uuid;
    return this;
}

@CheckForNull
public String getDescription() {
    return description;
}

public PermissionTemplateDto setDescription(@Nullable String description) {
    this.description = description;
    return this;
}

@CheckForNull
public String getKeyPattern() {
    return keyPattern;
}

```

```

public PermissionTemplateDto setKeyPattern(@Nullable String regexp) {
    this.keyPattern = regexp;
    return this;
}

public Date getCreatedAt() {
    return createdAt;
}

public PermissionTemplateDto setCreatedAt(Date createdAt) {
    this.createdAt = createdAt;
    return this;
}

public Date getUpdatedAt() {
    return updatedAt;
}

public PermissionTemplateDto setUpdatedAt(Date updatedAt) {
    this.updatedAt = updatedAt;
    return this;
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import java.util.List;
import javax.annotation.Nullable;
import org.junit.Before;

```

```

import org.junit.Test;
import org.sonar.core.permission.GlobalPermissions;
import org.sonar.db.permission.PermissionQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.db.user.GroupDto;
import org.sonar.server.exceptions.BadRequestException;
import org.sonar.server.exceptions.ForbiddenException;
import org.sonar.server.exceptions.NotFoundException;
import org.sonar.server.exceptions.UnauthorizedException;
import org.sonar.server.permission.ws.BasePermissionWsTest;
import org.sonar.server.ws.TestRequest;

import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.security.DefaultGroups.ANYONE;
import static org.sonar.api.web.UserRole.CODEVIEWER;
import static org.sonar.db.permission.OrganizationPermission.SCAN;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_GROUP_NAME;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_PERMISSION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class RemoveGroupFromTemplateActionTest extends
BasePermissionWsTest<RemoveGroupFromTemplateAction> {

    private static final String PERMISSION = CODEVIEWER;

    private GroupDto group;
    private PermissionTemplateDto template;

    @Override
    protected RemoveGroupFromTemplateAction buildWsAction() {
        return new RemoveGroupFromTemplateAction(db.getDbClient(), newPermissionWsSupport(), userSession);
    }

    @Before
    public void setUp() {
        loginAsAdmin(db.getDefaultOrganization());

        group = db.users().insertGroup(db.getDefaultOrganization(), "group-name");
        template = db.permissionTemplates().insertTemplate(db.getDefaultOrganization());
        addGroupToTemplate(template, group.getId(), PERMISSION);
    }

    @Test
    public void remove_group_from_template() throws Exception {
        newRequest(group.getName(), template.getUuid(), PERMISSION);
    }

```

```
    assertThat(getGroupNamesInTemplateAndPermission(template, PERMISSION)).isEmpty();
}
```

```
@Test
```

```
public void remove_group_from_template_by_name_case_insensitive() {
    newRequest()
        .setParam(PARAM_GROUP_NAME, group.getName())
        .setParam(PARAM_PERMISSION, PERMISSION)
        .setParam(PARAM_TEMPLATE_NAME, template.getName().toUpperCase())
        .execute();

    assertThat(getGroupNamesInTemplateAndPermission(template, PERMISSION)).isEmpty();
}
```

```
@Test
```

```
public void remove_group_with_group_id() {
    newRequest()
        .setParam(PARAM_TEMPLATE_ID, template.getUuid())
        .setParam(PARAM_PERMISSION, PERMISSION)
        .setParam(PARAM_GROUP_ID, String.valueOf(group.getId()))
        .execute();

    assertThat(getGroupNamesInTemplateAndPermission(template, PERMISSION)).isEmpty();
}
```

```
@Test
```

```
public void remove_group_twice_without_error() throws Exception {
    newRequest(group.getName(), template.getUuid(), PERMISSION);
    newRequest(group.getName(), template.getUuid(), PERMISSION);

    assertThat(getGroupNamesInTemplateAndPermission(template, PERMISSION)).isEmpty();
}
```

```
@Test
```

```
public void remove_anyone_group_from_template() throws Exception {
    addGroupToTemplate(template, null, PERMISSION);

    newRequest(ANYONE, template.getUuid(), PERMISSION);

    assertThat(getGroupNamesInTemplateAndPermission(template,
PERMISSION)).containsExactly(group.getName());
}
```

```
@Test
```

```
public void fail_if_not_a_project_permission() throws Exception {
    expectedException.expect(IllegalArgumentException.class);

    newRequest(group.getName(), template.getUuid(), GlobalPermissions.PROVISIONING);
}
```

```

}

@Test
public void fail_if_insufficient_privileges() throws Exception {
    userSession.logIn().addPermission(SCAN, db.getDefaultOrganization());

    expectedException.expect(ForbiddenException.class);

    newRequest(group.getName(), template.getUuid(), PERMISSION);
}

@Test
public void fail_if_not_logged_in() throws Exception {
    expectedException.expect(UnauthorizedException.class);
    userSession.anonymous();

    newRequest(group.getName(), template.getUuid(), PERMISSION);
}

@Test
public void fail_if_group_params_missing() throws Exception {
    expectedException.expect(BadRequestException.class);

    newRequest(null, template.getUuid(), PERMISSION);
}

@Test
public void fail_if_permission_missing() throws Exception {
    expectedException.expect(IllegalArgumentException.class);

    newRequest(group.getName(), template.getUuid(), null);
}

@Test
public void fail_if_template_missing() throws Exception {
    expectedException.expect(BadRequestException.class);

    newRequest(group.getName(), null, PERMISSION);
}

@Test
public void fail_if_group_does_not_exist() throws Exception {
    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("No group with name 'unknown-group-name'");

    newRequest("unknown-group-name", template.getUuid(), PERMISSION);
}

```

```

@Test
public void fail_if_template_key_does_not_exist() throws Exception {
    expectedException.expect(NotFoundException.class);
    expectedException.expectMessage("Permission template with id 'unknown-key' is not found");

    newRequest(group.getName(), "unknown-key", PERMISSION);
}

private void newRequest(@Nullable String groupName, @Nullable String templateKey, @Nullable String
permission) {
    TestRequest request = newRequest();
    if (groupName != null) {
        request.setParam(PARAM_GROUP_NAME, groupName);
    }
    if (templateKey != null) {
        request.setParam(PARAM_TEMPLATE_ID, templateKey);
    }
    if (permission != null) {
        request.setParam(PARAM_PERMISSION, permission);
    }

    request.execute();
}

private void addGroupToTemplate(PermissionTemplateDto template, @Nullable Integer groupId, String
permission) {
    db.getClient().permissionTemplateDao().insertGroupPermission(db.getSession(), template.getId(), groupId,
permission);
    db.commit();
}

private List<String> getGroupNamesInTemplateAndPermission(PermissionTemplateDto template, String
permission) {
    PermissionQuery permissionQuery =
PermissionQuery.builder().setOrganizationUuid(template.getOrganizationUuid()).setPermission(permission).build()
;
    return db.getClient().permissionTemplateDao()
        .selectGroupNamesByQueryAndTemplate(db.getSession(), permissionQuery, template.getId());
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either

```


* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
package org.sonar.server.permission.ws.template;

```
import java.util.Collection;
import java.util.HashSet;
import java.util.List;
import org.sonar.api.i18n.I18n;
import org.sonar.api.resources.Qualifiers;
import org.sonar.api.resources.ResourceTypes;
import org.sonar.api.server.ws.Change;
import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.api.server.ws.WebService.Param;
import org.sonar.db.DatabaseUtils;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentQuery;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.PermissionTemplateService;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.project.Visibility;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static java.util.Collections.singleton;
import static java.util.Objects.requireNonNull;
import static java.lang.String.format;
import static org.sonar.api.utils.DateUtils.parseDateOrDateTime;
import static org.sonar.core.util.Protobuf.setNullable;
import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.template.WsTemplateRef.newTemplateRef;
import static org.sonar.server.ws.KeyExamples.KEY_PROJECT_EXAMPLE_001;
```

```

import static org.sonar.server.ws.KeyExamples.KEY_PROJECT_EXAMPLE_002;
import static org.sonar.server.ws.WsParameterBuilder.QualifierParameterContext.newQualifierParameterContext;
import static org.sonar.server.ws.WsParameterBuilder.createRootQualifiersParameter;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_QUALIFIER;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_ANALYZED_BEFORE;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_ON_PROVISIONED_ONLY;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_PROJECTS;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_QUALIFIERS;
import static org.sonarqube.ws.client.project.ProjectsWsParameters.PARAM_VISIBILITY;

public class BulkApplyTemplateAction implements PermissionsWsAction {

    private final DbClient dbClient;
    private final UserSession userSession;
    private final PermissionTemplateService permissionTemplateService;
    private final PermissionWsSupport wsSupport;
    private final I18n i18n;
    private final ResourceTypes resourceTypes;

    public BulkApplyTemplateAction(DbClient dbClient, UserSession userSession, PermissionTemplateService
permissionTemplateService, PermissionWsSupport wsSupport, I18n i18n,
ResourceTypes resourceTypes) {
        this.dbClient = dbClient;
        this.userSession = userSession;
        this.permissionTemplateService = permissionTemplateService;
        this.wsSupport = wsSupport;
        this.i18n = i18n;
        this.resourceTypes = resourceTypes;
    }

    @Override
    public void define(WebService.NewController context) {
        WebService.NewAction action = context.createAction("bulk_apply_template")
            .setDescription("Apply a permission template to several projects.<br />" +
                "The template id or name must be provided.<br />" +
                "Requires the following permission: 'Administer System'.")
            .setPost(true)
            .setSince("5.5")
            .setChangelog(new Change("6.7.2", format("Parameter %s accepts maximum %d values", PARAM_PROJECTS,
DatabaseUtils.PARTITION_SIZE_FOR_ORACLE)))
            .setHandler(this);

        action.createParam(Param.TEXT_QUERY)
            .setDescription("Limit search to: <ul>" +
                "<li>project names that contain the supplied string</li>" +

```

```

        "<li>project keys that are exactly the same as the supplied string</li>" +
        "</ul>")
        .setExampleValue("apac");

createRootQualifiersParameter(action, newQualifierParameterContext(i18n, resourceTypes))
        .setDefaultValues(Qualifiers.PROJECT)
        .setDeprecatedKey(PARAM_QUALIFIER, "6.6");

createTemplateParameters(action);

action
        .createParam(PARAM_PROJECTS)
        .setDescription("Comma-separated list of project keys")
        .setSince("6.6")
        // Limitation of ComponentDao#selectByQuery(), max 1000 values are accepted.
        // Restricting size of HTTP parameter allows to not fail with SQL error
        .setMaxValuesAllowed(DatabaseUtils.PARTITION_SIZE_FOR_ORACLE)
        .setExampleValue(String.join(",", KEY_PROJECT_EXAMPLE_001, KEY_PROJECT_EXAMPLE_002));

action.createParam(PARAM_VISIBILITY)
        .setDescription("Filter the projects that should be visible to everyone (%s), or only specific user/groups (%s).<br/>" +
                "If no visibility is specified, the default project visibility of the organization will be used.",
                Visibility.PUBLIC.getLabel(), Visibility.PRIVATE.getLabel())
        .setRequired(false)
        .setInternal(true)
        .setSince("6.6")
        .setPossibleValues(Visibility.getLabels());

action.createParam(PARAM_ANALYZED_BEFORE)
        .setDescription("Filter the projects for which last analysis is older than the given date (exclusive).<br>" +
                "Either a date (server timezone) or datetime can be provided.")
        .setSince("6.6")
        .setExampleValue("2017-10-19 or 2017-10-19T13:00:00+0200")
        ;

action.createParam(PARAM_ON_PROVISIONED_ONLY)
        .setDescription("Filter the projects that are provisioned")
        .setBooleanPossibleValues()
        .setDefaultValues("false")
        .setSince("6.6");
}

@Override
public void handle(Request request, Response response) throws Exception {
    doHandle(toBulkApplyTemplateWsRequest(request));
    response.noContent();
}

```

```

private void doHandle(BulkApplyTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto template = wsSupport.findTemplate(dbSession, new TemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName());
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        ComponentQuery componentQuery = buildDbQuery(request);
        List<ComponentDto> projects = dbClient.componentDao().selectByQuery(dbSession,
            template.getOrganizationUuid(), componentQuery, 0, Integer.MAX_VALUE);

        permissionTemplateService.applyAndCommit(dbSession, template, projects);
    }
}

private static BulkApplyTemplateRequest toBulkApplyTemplateWsRequest(Request request) {
    return new BulkApplyTemplateRequest()
        .setOrganization(request.param(PARAM_ORGANIZATION))
        .setTemplateId(request.param(PARAM_TEMPLATE_ID))
        .setTemplateName(request.param(PARAM_TEMPLATE_NAME))
        .setQualifiers(request.mandatoryParamAsStrings(PARAM_QUALIFIERS))
        .setQuery(request.param(Param.TEXT_QUERY))
        .setVisibility(request.param(PARAM_VISIBILITY))
        .setOnProvisionedOnly(request.mandatoryParamAsBoolean(PARAM_ON_PROVISIONED_ONLY))
        .setAnalyzedBefore(request.param(PARAM_ANALYZED_BEFORE))
        .setProjects(request.paramAsStrings(PARAM_PROJECTS));
}

private static ComponentQuery buildDbQuery(BulkApplyTemplateRequest request) {
    Collection<String> qualifiers = request.getQualifiers();
    ComponentQuery.Builder query = ComponentQuery.builder()
        .setQualifiers(qualifiers.toArray(new String[qualifiers.size()]));

    setNullable(request.getQuery(), q -> {
        query.setNameOrKeyQuery(q);
        query.setPartialMatchOnKey(true);
        return query;
    });
    setNullable(request.getVisibility(), v -> query.setPrivate(Visibility.isPrivate(v)));
    setNullable(request.getAnalyzedBefore(), d -> query.setAnalyzedBefore(parseDateOrDateTime(d).getTime()));
    setNullable(request.isOnProvisionedOnly(), query::setOnProvisionedOnly);
    setNullable(request.getProjects(), keys -> query.setComponentKeys(new HashSet<>(keys)));

    return query.build();
}

private static class BulkApplyTemplateRequest {
    private String templateId;

```

```

private String organization;
private String templateName;
private String query;
private Collection<String> qualifiers = singleton(Qualifiers.PROJECT);
private String visibility;
private String analyzedBefore;
private boolean onProvisionedOnly = false;
private Collection<String> projects;

@CheckForNull
public String getTemplateId() {
    return templateId;
}

public BulkApplyTemplateRequest setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public BulkApplyTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public BulkApplyTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}

@CheckForNull
public String getQuery() {
    return query;
}

public BulkApplyTemplateRequest setQuery(@Nullable String query) {
    this.query = query;
    return this;
}

```

```

public Collection<String> getQualifiers() {
    return qualifiers;
}

public BulkApplyTemplateRequest setQualifiers(Collection<String> qualifiers) {
    this.qualifiers = requireNonNull(qualifiers);
    return this;
}

@CheckForNull
public String getVisibility() {
    return visibility;
}

public BulkApplyTemplateRequest setVisibility(@Nullable String visibility) {
    this.visibility = visibility;
    return this;
}

@CheckForNull
public String getAnalyzedBefore() {
    return analyzedBefore;
}

public BulkApplyTemplateRequest setAnalyzedBefore(@Nullable String analyzedBefore) {
    this.analyzedBefore = analyzedBefore;
    return this;
}

public boolean isOnProvisionedOnly() {
    return onProvisionedOnly;
}

public BulkApplyTemplateRequest setOnProvisionedOnly(boolean onProvisionedOnly) {
    this.onProvisionedOnly = onProvisionedOnly;
    return this;
}

@CheckForNull
public Collection<String> getProjects() {
    return projects;
}

public BulkApplyTemplateRequest setProjects(@Nullable Collection<String> projects) {
    this.projects = projects;
    return this;
}

```

```

    }
  }
  {
    "projects": [],
    "paging": {
      "pageIndex": 1,
      "pageSize": 25,
      "total": 0
    }
  }
  {
    "paging": {
      "pageIndex": 1,
      "pageSize": 20,
      "total": 2
    },
    "users": [
      {
        "login": "admin",
        "name": "Administrator",
        "email": "admin@admin.com",
        "permissions": [
          "admin",
          "gateadmin",
          "profileadmin"
        ]
      },
      {
        "login": "george.orwell",
        "name": "George Orwell",
        "email": "george.orwell@1984.net",
        "permissions": [
          "scan"
        ]
      }
    ]
  }
]
}
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN" "mybatis-3-mapper.dtd">

<mapper namespace="org.sonar.db.permission.GroupPermissionMapper">

<select id="groupsCountByProjectIdAndPermission" parameterType="map"
  resultType="org.sonar.db.permission.CountPerProjectPermission">
SELECT
  count(1) as count,
  permission,
  componentId

```

```

FROM (
  SELECT
    g.name as name,
    group_role.role as permission,
    group_role.resource_id as componentId
  FROM
    groups g
  INNER JOIN group_roles group_role ON
    group_role.group_id=g.id
  UNION
  -- Add Anyone group permission
  SELECT
    #{anyoneGroup} as name,
    group_role.role as permission,
    group_role.resource_id as componentId
  FROM
    group_roles group_role
  where
    group_role.group_id IS NULL
) groups
where
  groups.componentId in
  <foreach collection="componentIds" open="(" close=")" item="id" separator=",">
    #{id,jdbcType=BIGINT}
  </foreach>
GROUP BY
  groups.permission,
  groups.componentId
</select>

<select id="selectGroupNamesByQuery" parameterType="map" resultType="string">
  select distinct sub.name, lower(sub.name), sub.groupId
  <include refid="groupsByQuery" />
  order by lower(sub.name), sub.name, sub.groupId
</select>

<select id="countGroupsByQuery" parameterType="map" resultType="int">
  select count(1)
  from (
    select distinct sub.groupId
    <include refid="groupsByQuery" />
  ) g
</select>

<sql id="groupsByQuery">
  from (
    select g.id as groupId, g.name as name, gr.role as permission, gr.resource_id as componentId, gr.id as id
    from groups g
    left join group_roles gr on g.id = gr.group_id
  )

```



```

where
g.organization_uuid = #{query.organizationUuid,jdbcType=VARCHAR}

union all

select 0 as groupId, 'Anyone' as name, gr.role as permission, gr.resource_id as componentId, gr.id as id
from group_roles gr
<if test="query.withAtLeastOnePermission()">
where
gr.organization_uuid = #{query.organizationUuid,jdbcType=VARCHAR} and
gr.group_id is null
</if>

) sub
left join projects p on sub.componentId = p.id
<where>
<if test="query.searchQueryToSql != null">
and lower(sub.name) like #{query.searchQueryToSqlLowercase,jdbcType=VARCHAR} ESCAPE '/'
</if>
<!-- filter rows with group permissions -->
<if test="query.withAtLeastOnePermission()">
and sub.permission is not null
<if test="query.componentUuid==null">
and sub.componentId is null
</if>
<if test="query.componentUuid!=null">
and p.uuid = #{query.componentUuid,jdbcType=VARCHAR}
</if>
<if test="query.permission!=null">
and sub.permission = #{query.permission,jdbcType=VARCHAR}
</if>
</if>
</where>
</sql>

<select id="selectByGroupIds" parameterType="map" resultType="GroupPermission">
select sub.groupId as groupId, sub.componentId as resourceId, sub.permission as role, sub.organizationUuid as
organizationUuid
from
(
select gr.group_id as groupId, gr.resource_id as componentId, gr.role as permission, g.name as name,
gr.organization_uuid as organizationUuid
from group_roles gr
inner join groups g ON g.id = gr.group_id
where gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.group_id is not null

union all

```

```

select 0 as groupId, gr.resource_id as componentId, gr.role as permission, 'Anyone' as name,
gr.organization_uuid as organizationUuid
from group_roles gr
where
gr.group_id is null and
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR}
) sub
where
sub.groupId in
<foreach collection="groupIds" open="(" close=")" item="groupId" separator=",">
  #{groupId,jdbcType=INTEGER}
</foreach>
<if test="projectId != null">
  and sub.componentId=#{projectId,jdbcType=BIGINT}
</if>
<if test="projectId==null">
  and sub.componentId is null
</if>
</select>

```

```

<select id="selectGlobalPermissionsOfGroup" parameterType="map" resultType="String">
select gr.role
from group_roles gr
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.resource_id is null and
<choose>
  <when test="groupId != null">
    gr.group_id = #{groupId,jdbcType=INTEGER}
  </when>
  <otherwise>
    gr.group_id is null
  </otherwise>
</choose>
</select>

```

```

<select id="selectProjectPermissionsOfGroup" parameterType="map" resultType="String">
select gr.role
from group_roles gr
where
gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
gr.resource_id = #{projectId,jdbcType=BIGINT} and
<choose>
  <when test="groupId != null">
    gr.group_id = #{groupId,jdbcType=INTEGER}
  </when>
  <otherwise>

```

```

        gr.group_id is null
    </otherwise>
</choose>
</select>

<select id="selectAllPermissionsByGroupId" parameterType="map" resultType="GroupPermission">
    select gr.group_id as groupId, gr.resource_id as resourceId, gr.role as role, gr.organization_uuid as
organizationUuid
    from group_roles gr
    where gr.organization_uuid = #{organizationUuid,jdbcType=VARCHAR}
    and gr.group_id = #{groupId,jdbcType=INTEGER}
</select>

<select id="selectGroupIdsWithPermissionOnProjectBut" resultType="Integer">
    select
        distinct gr1.group_id
    from
        group_roles gr1
    where
        gr1.resource_id = #{projectId,jdbcType=BIGINT}
        and gr1.group_id is not null
        and not exists (
            select
                1
            from
                group_roles gr2
            where
                gr2.resource_id = gr1.resource_id
                and gr2.group_id = gr1.group_id
                and gr2.role = #{role,jdbcType=VARCHAR}
        )
</select>

<insert id="insert" parameterType="GroupPermission" keyColumn="id" useGeneratedKeys="false"
keyProperty="id">
    insert into group_roles (
        organization_uuid,
        group_id,
        resource_id,
        role
    ) values (
        #{organizationUuid,jdbcType=VARCHAR},
        #{groupId,jdbcType=INTEGER},
        #{resourceId,jdbcType=BIGINT},
        #{role,jdbcType=VARCHAR}
    )
</insert>

```

```
<delete id="deleteByRootComponentId" parameterType="long">
  delete from group_roles
  where resource_id=#{rootComponentId,jdbcType=BIGINT}
</delete>
```

```
<delete id="deleteByRootComponentIdAndGroupId">
  delete from
    group_roles
  where
    resource_id=#{rootComponentId,jdbcType=BIGINT}
    <choose>
      <when test="groupId != null">
        and group_id = #{groupId,jdbcType=INTEGER}
      </when>
      <otherwise>
        and group_id is null
      </otherwise>
    </choose>
</delete>
```

```
<delete id="deleteByRootComponentIdAndPermission">
  delete from
    group_roles
  where
    resource_id=#{rootComponentId,jdbcType=BIGINT}
    and role=#{permission,jdbcType=VARCHAR}
</delete>
```

```
<delete id="delete" parameterType="map">
  delete from group_roles
  where
    role=#{permission,jdbcType=VARCHAR} and
    organization_uuid=#{organizationUuid,jdbcType=VARCHAR} and
    <choose>
      <when test="rootComponentId != null">
        resource_id=#{rootComponentId,jdbcType=BIGINT}
      </when>
      <otherwise>
        resource_id is null
      </otherwise>
    </choose>
    and
    <choose>
      <when test="groupId != null">
        group_id=#{groupId,jdbcType=INTEGER}
      </when>
      <otherwise>
        group_id is null
    </choose>
```

```

    </otherwise>
  </choose>
</delete>

<delete id="deleteByOrganization" parameterType="String">
  delete from
    group_roles
  where
    organization_uuid=#{organizationUuid,jdbcType=VARCHAR}
</delete>

</mapper>
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
import React from 'react';
import PropTypes from 'prop-types';
import ListHeader from './ListHeader';
import ListItem from './ListItem';
import { PermissionTemplateType, CallbackType } from './propTypes';

export default class List extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    permissionTemplates: PropTypes.arrayOf(PermissionTemplateType).isRequired,
    permissions: PropTypes.array.isRequired,
    topQualifiers: PropTypes.array.isRequired,
    refresh: CallbackType
  };

  render() {
    const permissionTemplates = this.props.permissionTemplates.map(p => (

```

```

<ListItem
  key={p.id}
  organization={this.props.organization}
  permissionTemplate={p}
  topQualifiers={this.props.topQualifiers}
  refresh={this.props.refresh}
/>
));

return (
  <div className="boxed-group boxed-group-inner">
    <table id="permission-templates" className="data zebra permissions-table">
      <ListHeader organization={this.props.organization} permissions={this.props.permissions} />
      <tbody>{permissionTemplates}</tbody>
    </table>
  </div>
);
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.core.permission;

import com.google.common.base.Joiner;
import com.google.common.collect.ImmutableList;
import java.util.List;

/**
 * Holds the constants representing the various global permissions that can be assigned to users & groups
 *
 * @deprecated replaced by enum { @link org.sonar.db.permission.OrganizationPermission }

```

```

*/
@Deprecated
public final class GlobalPermissions {

    public static final String SYSTEM_ADMIN = "admin";
    public static final String QUALITY_PROFILE_ADMIN = "profileadmin";
    public static final String QUALITY_GATE_ADMIN = "gateadmin";
    public static final String SCAN_EXECUTION = "scan";
    public static final String PROVISIONING = "provisioning";

    /**
     * All the global permissions values, ordered from {@link #SYSTEM_ADMIN} to {@link #PROVISIONING}.
     */
    public static final List<String> ALL = ImmutableList.of(
        SYSTEM_ADMIN, QUALITY_PROFILE_ADMIN, QUALITY_GATE_ADMIN, SCAN_EXECUTION,
        PROVISIONING);
    public static final String ALL_ON_ONE_LINE = Joiner.on(", ").join(GlobalPermissions.ALL);

    private GlobalPermissions() {
        // only static methods
    }

}

/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.db.permission.template;

import java.util.List;
import java.util.Optional;
import org.junit.Rule;
import org.junit.Test;

```

```

import org.junit.rules.ExpectedException;
import org.sonar.api.utils.System2;
import org.sonar.api.web.UserRole;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;

import static com.google.common.collect.Lists.newArrayList;
import static com.google.common.primitives.Longs.asList;
import static java.util.Collections.emptyList;
import static org.assertj.core.api.Assertions.assertThat;

public class PermissionTemplateCharacteristicDaoTest {
    @Rule
    public ExpectedException expectedException = ExpectedException.none();
    @Rule
    public DbTester db = DbTester.create(System2.INSTANCE);
    private DbSession dbSession = db.getSession();
    private PermissionTemplateCharacteristicDao underTest = new PermissionTemplateCharacteristicDao();

    @Test
    public void selectByTemplateId_filter_by_template_id() {
        PermissionTemplateCharacteristicDto templatePermission1 = underTest.insert(dbSession, new
PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.ADMIN)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setCreatedAt(1_000_000_000L)
        .setUpdatedAt(2_000_000_000L));
        PermissionTemplateCharacteristicDto templatePermission2 = underTest.insert(dbSession, new
PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(2L)
        .setWithProjectCreator(false)
        .setCreatedAt(1_000_000_000L)
        .setUpdatedAt(2_000_000_000L));
        PermissionTemplateCharacteristicDto templatePermissionForAnotherTemplate = underTest.insert(dbSession, new
PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.ADMIN)
        .setTemplateId(42L)
        .setWithProjectCreator(true)
        .setCreatedAt(1_000_000_000L)
        .setUpdatedAt(2_000_000_000L));

        List<PermissionTemplateCharacteristicDto> result = underTest.selectByTemplateIds(dbSession,
newArrayList(1L, 2L));
        assertThat(result)
            .hasSize(2)
            .extracting("id")

```



```

        .doesNotContain(templatePermissionForAnotherTemplate.getId())
        .containsOnly(templatePermission1.getId(), templatePermission2.getId());
    assertThat(result.get(0))
        .isEqualToComparingFieldByField(templatePermission1);
    }

    @Test
    public void selectByTemplateId_for_empty_list_of_template_id() {
        List<PermissionTemplateCharacteristicDto> result = underTest.selectByTemplateIds(dbSession, emptyList());

        assertThat(result).isEmpty();
    }

    @Test
    public void selectByPermissionAndTemplateId() {
        PermissionTemplateCharacteristicDto templatePermission1 = underTest.insert(dbSession, new
        PermissionTemplateCharacteristicDto()
            .setPermission(UserRole.ADMIN)
            .setTemplateId(1L)
            .setWithProjectCreator(true)
            .setCreatedAt(1_000_000_000L)
            .setUpdatedAt(2_000_000_000L));
        underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
            .setPermission(UserRole.USER)
            .setTemplateId(1L)
            .setWithProjectCreator(false)
            .setCreatedAt(1_000_000_000L)
            .setUpdatedAt(2_000_000_000L));
        underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
            .setPermission(UserRole.ADMIN)
            .setTemplateId(42L)
            .setWithProjectCreator(true)
            .setCreatedAt(1_000_000_000L)
            .setUpdatedAt(2_000_000_000L));

        Optional<PermissionTemplateCharacteristicDto> result =
        underTest.selectByPermissionAndTemplateId(dbSession, UserRole.ADMIN, 1L);

        assertThat(result).isPresent();
        assertThat(result.get()).isEqualToComparingFieldByField(templatePermission1);
    }

    @Test
    public void insert() {
        PermissionTemplateCharacteristicDto expectedResult = underTest.insert(dbSession, new
        PermissionTemplateCharacteristicDto()
            .setPermission(UserRole.USER)
            .setTemplateId(1L)

```

```

        .setWithProjectCreator(true)
        .setCreatedAt(123_456_789L)
        .setUpdatedAt(2_000_000_000L));

    PermissionTemplateCharacteristicDto result =
dbSession.getMapper(PermissionTemplateCharacteristicMapper.class).selectById(expectedResult.getId());
    assertThat(result.getId()).isNotNull();
    assertThat(result).isEqualToComparingFieldByField(expectedResult);
}

@Test
public void update_only_change_with_project_creator_and_updated_at() {
    PermissionTemplateCharacteristicDto insertedDto = underTest.insert(dbSession, new
PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setCreatedAt(123_456_789L)
        .setUpdatedAt(2_000_000_000L));

    underTest.update(dbSession, new PermissionTemplateCharacteristicDto()
        .setId(insertedDto.getId())
        .setPermission("PERMISSION_ARE_NOT_UPDATABLE")
        .setTemplateId(42L)
        .setCreatedAt(42L)
        .setWithProjectCreator(false)
        .setUpdatedAt(3_000_000_000L));

    PermissionTemplateCharacteristicDto result = underTest.selectByPermissionAndTemplateId(dbSession,
insertedDto.getPermission(), insertedDto.getTemplateId()).get();
    assertThat(result).extracting("id", "permission", "templateId", "createdAt")
        .containsExactly(insertedDto.getId(), insertedDto.getPermission(), insertedDto.getTemplateId(),
insertedDto.getCreatedAt());
    assertThat(result).extracting("withProjectCreator", "updatedAt")
        .containsExactly(false, 3_000_000_000L);
}

@Test
public void fail_insert_if_created_at_is_equal_to_0() {
    expectedException.expect(IllegalArgumentException.class);

    underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setUpdatedAt(2_000_000_000L));
}

```

```

@Test
public void fail_insert_if_updated_at_is_equal_to_0() {
    expectedException.expect(IllegalArgumentException.class);

    underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setCreatedAt(2_000_000_000L));
}

@Test
public void fail_update_if_id_is_null() {
    expectedException.expect(NullPointerException.class);

    underTest.update(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setCreatedAt(123_456_789L)
        .setUpdatedAt(2_000_000_000L));
}

@Test
public void delete_by_permission_template_id() {
    underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(1L)
        .setWithProjectCreator(true)
        .setCreatedAt(123_456_789L)
        .setUpdatedAt(2_000_000_000L));
    underTest.insert(dbSession, new PermissionTemplateCharacteristicDto()
        .setPermission(UserRole.USER)
        .setTemplateId(2L)
        .setWithProjectCreator(true)
        .setCreatedAt(123_456_789L)
        .setUpdatedAt(2_000_000_000L));

    assertThat(underTest.selectByTemplateIds(dbSession, asList(1L))).hasSize(1);
    assertThat(underTest.selectByTemplateIds(dbSession, asList(1L, 2L))).hasSize(2);

    dbSession.getMapper(PermissionTemplateCharacteristicMapper.class).deleteByTemplateId(1L);

    assertThat(underTest.selectByTemplateIds(dbSession, asList(1L))).hasSize(0);
    assertThat(underTest.selectByTemplateIds(dbSession, asList(1L, 2L))).hasSize(1);
}
}

```

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

Preamble

The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
Licenses are intended to guarantee your freedom to share and change
free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some
specially designated software packages--typically libraries--of the
Free Software Foundation and other authors who decide to use it. You
can use it too, but we suggest you first think carefully about whether
this license or the ordinary General Public License is the better
strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use,
not price. Our General Public Licenses are designed to make sure that
you have the freedom to distribute copies of free software (and charge
for this service if you wish); that you receive source code or can get
it if you want it; that you can change the software and use pieces of
it in new free programs; and that you are informed that you can do
these things.

To protect your rights, we need to make restrictions that forbid
distributors to deny you these rights or to ask you to surrender these
rights. These restrictions translate to certain responsibilities for
you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis
or for a fee, you must give the recipients all the rights that we gave
you. You must make sure that they, too, receive or can get the source
code. If you link other code with the library, you must provide
complete object files to the recipients, so that they can relink them
with the library after making changes to the library and recompiling
it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of

running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library,

and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever

changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined

library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then

the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status

of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the library's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, 5th Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

* mailto:info AT sonarsource DOT com

*

* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.

*

* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.

*

* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

*/

```
package org.sonar.server.permission.ws;
```

```
import org.sonar.api.server.ws.WebService;
```

```
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.CONTROLLER;
```

```

public class PermissionsWs implements WebService {
    private final PermissionsWsAction[] actions;

    public PermissionsWs(PermissionsWsAction... actions) {
        this.actions = actions;
    }

    @Override
    public void define(Context context) {
        NewController controller = context.createController(CONTROLLER);
        controller.setDescription("Manage permission templates, and the granting and revoking of permissions at the
global and project levels.");
        controller.setSince("3.7");

        for (PermissionsWsAction action : actions) {
            action.define(controller);
        }

        controller.done();
    }
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import React from 'react';
import PropTypes from 'prop-types';
import Helmet from 'react-helmet';
import { debounce } from 'lodash';
import TemplateHeader from './TemplateHeader';
import TemplateDetails from './TemplateDetails';
import HoldersList from '../permissions/shared/components/HoldersList';
import SearchForm from '../permissions/shared/components/SearchForm';

```

```

import { PERMISSIONS_ORDER_FOR_PROJECT } from '../permissions/project/constants';
import * as api from '../api/permissions';
import { translate } from '../helpers/110n';

export default class Template extends React.PureComponent {
  static propTypes = {
    organization: PropTypes.object,
    template: PropTypes.object.isRequired,
    refresh: PropTypes.func.isRequired,
    topQualifiers: PropTypes.array.isRequired
  };

  state = {
    loading: false,
    users: [],
    groups: [],
    query: '',
    filter: 'all',
    selectedPermission: null
  };

  componentDidMount() {
    this.mounted = true;
    this.requestHolders();
  }

  componentWillUnmount() {
    this.mounted = false;
  }

  requestHolders = realQuery => {
    this.setState({ loading: true });

    const { template } = this.props;
    const { query, filter, selectedPermission } = this.state;
    const requests = [];

    const finalQuery = realQuery !== null ? realQuery : query;

    if (filter !== 'groups') {
      requests.push(api.getPermissionTemplateUsers(template.id, finalQuery, selectedPermission));
    } else {
      requests.push(Promise.resolve([]));
    }

    if (filter !== 'users') {
      requests.push(api.getPermissionTemplateGroups(template.id, finalQuery, selectedPermission));
    } else {

```



```

    requests.push(Promise.resolve([]));
  }

return Promise.all(requests).then(responses => {
  if (this.mounted) {
    this.setState({
      users: responses[0],
      groups: responses[1],
      loading: false
    });
  }
});
};

handleToggleUser = (user, permission) => {
  if (user.login === '<creator>') {
    return this.handleToggleProjectCreator(user, permission);
  }
  const { template, organization } = this.props;
  const hasPermission = user.permissions.includes(permission);
  const data = {
    templateId: template.id,
    login: user.login,
    permission
  };
  if (organization) {
    data.organization = organization.key;
  }
  const request = hasPermission
    ? api.revokeTemplatePermissionFromUser(data)
    : api.grantTemplatePermissionToUser(data);
  return request.then(() => this.requestHolders()).then(this.props.refresh);
};

handleToggleProjectCreator = (user, permission) => {
  const { template } = this.props;
  const hasPermission = user.permissions.includes(permission);
  const request = hasPermission
    ? api.removeProjectCreatorFromTemplate(template.id, permission)
    : api.addProjectCreatorToTemplate(template.id, permission);
  return request.then(() => this.requestHolders()).then(this.props.refresh);
};

handleToggleGroup = (group, permission) => {
  const { template, organization } = this.props;
  const hasPermission = group.permissions.includes(permission);
  const data = {
    templateId: template.id,

```

```

    groupName: group.name,
    permission
  };
  if (organization) {
    Object.assign(data, { organization: organization.key });
  }
  const request = hasPermission
    ? api.revokeTemplatePermissionFromGroup(data)
    : api.grantTemplatePermissionToGroup(data);
  return request.then(() => this.requestHolders()).then(this.props.refresh);
};

handleSearch = query => {
  this.setState({ query });
  this.requestHolders(query);
};

handleFilter = filter => {
  this.setState({ filter }, this.requestHolders);
};

handleSelectPermission = selectedPermission => {
  if (selectedPermission === this.state.selectedPermission) {
    this.setState({ selectedPermission: null }, this.requestHolders);
  } else {
    this.setState({ selectedPermission }, this.requestHolders);
  }
};

shouldDisplayCreator = creatorPermissions => {
  const { filter, query, selectedPermission } = this.state;
  const CREATOR_NAME = translate('permission_templates.project_creators');

  const isFiltered = filter !== 'all';

  const matchQuery = !query || CREATOR_NAME.toLocaleLowerCase().includes(query.toLowerCase());

  const matchPermission =
    selectedPermission === null || creatorPermissions.includes(selectedPermission);

  return !isFiltered && matchQuery && matchPermission;
};

render() {
  const permissions = PERMISSIONS_ORDER_FOR_PROJECT.map(p => ({
    key: p,
    name: translate('projects_role', p),
    description: translate('projects_role', p, 'desc')
  }

```

```

    ));

    const allUsers = [...this.state.users];

    const creatorPermissions = this.props.template.permissions
      .filter(p => p.withProjectCreator)
      .map(p => p.key);

    if (this.shouldDisplayCreator(creatorPermissions)) {
      const creator = {
        login: '<creator>',
        name: translate('permission_templates.project_creators'),
        permissions: creatorPermissions
      };

      allUsers.unshift(creator);
    }

    return (
      <div className="page page-limited">
        <Helmet title={this.props.template.name} />

        <TemplateHeader
          loading={this.state.loading}
          organization={this.props.organization}
          refresh={this.props.refresh}
          template={this.props.template}
          topQualifiers={this.props.topQualifiers}
        />

        <TemplateDetails organization={this.props.organization} template={this.props.template} />

        <HoldersList
          groups={this.state.groups}
          onSelectPermission={this.handleSelectPermission}
          onToggleGroup={this.handleToggleGroup}
          onToggleUser={this.handleToggleUser}
          permissions={permissions}
          selectedPermission={this.state.selectedPermission}
          showPublicProjectsWarning={true}
          users={allUsers}>
          <SearchForm
            filter={this.state.filter}
            onFilter={this.handleFilter}
            onSearch={this.handleSearch}
            query={this.state.query}
          />
        </HoldersList>
      </div>
    );
  }
}

```

```

</div>
);
}
}
/*
* SonarQube
* Copyright (C) 2009-2018 SonarSource SA
* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import * as React from 'react';
import { shallow } from 'enzyme';
import ActionsCell, { Props } from '../ActionsCell';

const SAMPLE = {
  createdAt: '2018-01-01',
  id: 'id',
  name: 'name',
  permissions: [],
  defaultFor: []
};

function renderActionsCell(props?: Partial<Props>) {
  return shallow(
    <ActionsCell
      permissionTemplate={SAMPLE}
      refresh={() => true}
      topQualifiers={['TRK', 'VW']}
      {...props}
    />
  );
}

it('should set default', () => {
  const setDefault = renderActionsCell().find('.js-set-default');

```

```

expect(setDefault.length).toBe(2);
expect(setDefault.at(0).prop('data-qualifier')).toBe('TRK');
expect(setDefault.at(1).prop('data-qualifier')).toBe('VW');
});

it('should not set default', () => {
  const permissionTemplate = { ...SAMPLE, defaultFor: ['TRK', 'VW'] };
  const setDefault = renderActionsCell({ permissionTemplate }).find('.js-set-default');
  expect(setDefault.length).toBe(0);
});

it('should display all qualifiers for default organization', () => {
  const organization = { isDefault: true, key: 'org' };
  const setDefault = renderActionsCell({ organization }).find('.js-set-default');
  expect(setDefault.length).toBe(2);
  expect(setDefault.at(0).prop('data-qualifier')).toBe('TRK');
  expect(setDefault.at(1).prop('data-qualifier')).toBe('VW');
});

it('should display only projects for custom organization', () => {
  const organization = { isDefault: false, key: 'org' };
  const setDefault = renderActionsCell({ organization }).find('.js-set-default');
  expect(setDefault.length).toBe(1);
  expect(setDefault.at(0).prop('data-qualifier')).toBe('TRK');
});
<dataset>

<!-- user 100 has no direct grant access, but is in the group 200 that has the role "user"
on the project 300 -->
<user_roles id="1"
  user_id="100"
  resource_id="999"
  role="user"
  organization_uuid="org1"/>
<groups_users user_id="100"
  group_id="200"/>
<group_roles id="1"
  group_id="200"
  resource_id="300"
  role="user"
  organization_uuid="org1"/>

<projects organization_uuid="org1"
  id="300"
  uuid="ABCD"
  uuid_path="NOT_USED"
  root_uuid="ABCD"
  project_uuid="ABCD"

```

```
    module_uuid="[null]"
    kee="pj-w-snapshot"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="301"
    uuid="BCDE"
    uuid_path="NOT_USED"
    root_uuid="BCDE"
    project_uuid="BCDE"
    module_uuid="[null]"
    kee="pj-w-snapshot1"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
<projects organization_uuid="org1"
    id="302"
    uuid="CDEF"
    uuid_path="NOT_USED"
    root_uuid="CDEF"
    project_uuid="CDEF"
    module_uuid="[null]"
    kee="pj-w-snapshot2"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>

<projects organization_uuid="org1"
    id="303"
    uuid="DEFG"
    uuid_path="NOT_USED"
    root_uuid="DEFG"
    project_uuid="DEFG"
    module_uuid="[null]"
    kee="pj-w-snapshot3"
    scope="PRJ"
    qualifier="TRK"
    enabled="[true]"
    private="[false]"/>
```

</dataset>

/*

* SonarQube

* Copyright (C) 2009-2018 SonarSource SA

```

* mailto:info AT sonarsource DOT com
*
* This program is free software; you can redistribute it and/or
* modify it under the terms of the GNU Lesser General Public
* License as published by the Free Software Foundation; either
* version 3 of the License, or (at your option) any later version.
*
* This program is distributed in the hope that it will be useful,
* but WITHOUT ANY WARRANTY; without even the implied warranty of
* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
* Lesser General Public License for more details.
*
* You should have received a copy of the GNU Lesser General Public License
* along with this program; if not, write to the Free Software Foundation,
* Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
*/
import { sortBy } from 'lodash';

export const PERMISSIONS_ORDER = ['user', 'codeviewer', 'issueadmin', 'admin', 'scan'];

/**
 * Sort list of permissions based on predefined order
 * @param {Array} permissions
 * @returns {Array}
 */
export function sortPermissions(permissions) {
  return sortBy(permissions, p => PERMISSIONS_ORDER.indexOf(p.key));
}

/**
 * Populate permissions' details in the list of permission templates
 * @param {Array} permissionTemplates
 * @param {Array} basePermissions
 * @returns {Array}
 */
export function mergePermissionsToTemplates(permissionTemplates, basePermissions) {
  return permissionTemplates.map(permissionTemplate => {
    // it's important to keep the order of the permission template's permissions
    // the same as the order of base permissions
    const permissions = basePermissions.map(basePermission => {
      const projectPermission = permissionTemplate.permissions.find(
        p => p.key === basePermission.key
      );
      return { usersCount: 0, groupsCount: 0, ...basePermission, ...projectPermission };
    });

    return { ...permissionTemplate, permissions };
  });
}

```

```

}

/**
 * Mark default templates
 * @param {Array} permissionTemplates
 * @param {Array} defaultTemplates
 * @returns {Array}
 */
export function mergeDefaultsToTemplates(permissionTemplates, defaultTemplates = []) {
  return permissionTemplates.map(permissionTemplate => {
    const defaultFor = [];

    defaultTemplates.forEach(defaultTemplate => {
      if (defaultTemplate.templateId === permissionTemplate.id) {
        defaultFor.push(defaultTemplate.qualifier);
      }
    });

    return { ...permissionTemplate, defaultFor };
  });
}
/**
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.index;

import java.util.Arrays;
import java.util.List;
import org.elasticsearch.index.query.QueryBuilders;
import org.elasticsearch.search.SearchHits;
import org.sonar.core.util.stream.MoreCollectors;
import org.sonar.server.es.EsClient;

```



```

import static org.sonar.server.permission.index.FooIndexDefinition.FOO_INDEX;
import static org.sonar.server.permission.index.FooIndexDefinition.FOO_TYPE;

public class FooIndex {

    private final EsClient esClient;
    private final AuthorizationTypeSupport authorizationTypeSupport;

    public FooIndex(EsClient esClient, AuthorizationTypeSupport authorizationTypeSupport) {
        this.esClient = esClient;
        this.authorizationTypeSupport = authorizationTypeSupport;
    }

    public boolean hasAccessToProject(String projectUuid) {
        SearchHits hits = esClient.prepareSearch(FOO_INDEX)
            .setTypes(FOO_TYPE)
            .setQuery(QueryBuilders.boolQuery()
                .must(QueryBuilders.termQuery(FooIndexDefinition.FIELD_PROJECT_UUID, projectUuid))
                .filter(authorizationTypeSupport.createQueryFilter()))
            .get()
            .getHits();
        List<String> names = Arrays.stream(hits.hits())
            .map(h -> h.getSource().get(FooIndexDefinition.FIELD_NAME).toString())
            .collect(Collectors.toList());
        return names.size() == 2 && names.contains("bar") && names.contains("baz");
    }
}

```

The person or persons who have associated work with this document (the "Dedicator" or "Certifier") hereby either (a) certifies that, to the best of his knowledge, the work of authorship identified is in the public domain of the country from which the work is published, or (b) hereby dedicates whatever copyright the dedicators holds in the work of authorship identified below (the "Work") to the public domain. A certifier, moreover, dedicates any copyright interest he may have in the associated work, and for these purposes, is described as a "dedicator" below.

A certifier has taken reasonable steps to verify the copyright status of this work. Certifier recognizes that his good faith efforts may not shield him from liability if in fact the work certified is not in the public domain.

Dedicator makes this dedication for the benefit of the public at large and to the detriment of the Dedicator's heirs and successors. Dedicator intends this dedication to be an overt act of relinquishment in perpetuate of all present and future rights under copyright law, whether vested or contingent, in the Work. Dedicator understands that such relinquishment of all rights includes the relinquishment of all rights to enforce (by lawsuit or otherwise) those copyrights in the Work.

Dedicator recognizes that, once placed in the public domain, the Work may be freely reproduced, distributed, transmitted, used, modified, built upon, or otherwise exploited by anyone for any purpose, commercial or non-commercial, and in any way, including by methods that have not yet been invented or conceived.

```
{
  "paging": {
    "pageIndex": 1,
    "pageSize": 20,
    "total": 2
  },
  "users": [
    {
      "login": "admin",
      "name": "Administrator",
      "email": "admin@admin.com",
      "avatar": "64e1b8d34f425d19e1ee2ea7236d3028",
      "permissions": ["codeviewer"]
    },
    {
      "login": "george.orwell",
      "name": "George Orwell",
      "email": "george.orwell@1984.net",
      "avatar": "583af86a274c1027ef078cada831babf",
      "permissions": ["admin", "codeviewer"]
    }
  ]
}
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN" "mybatis-3-mapper.dtd">

<mapper namespace="org.sonar.db.permission.UserPermissionMapper">

  <select id="selectUserPermissionsByQueryAndUserIds" parameterType="map"
resultType="org.sonar.db.permission.UserPermissionDto">
    select
      u.id as userId,
      ur.organization_uuid as organizationUuid,
      ur.resource_id as componentId,
      ur.role as permission
    <include refid="sqlQueryJoins" />
    <where>
      u.id in <foreach collection="userIds" open="(" close=")" item="userId"
separator=",">#{userId,jdbcType=INTEGER}</foreach>
      <include refid="sqlQueryFilters" />
    </where>
  </select>
```

```

<select id="selectUserIdsByQuery" parameterType="map" resultType="int">
  select
    distinct u.id, lower(u.name) as lowerName
    <include refid="sqlQueryJoins" />
    <where>
      <include refid="sqlQueryFilters" />
    </where>
  order by lowerName asc
</select>

```

```

<select id="countUsersByQuery" parameterType="map" resultType="int">
  select count(distinct(u.id))
  <include refid="sqlQueryJoins" />
  <where>
    <include refid="sqlQueryFilters" />
  </where>
</select>

```

```

<sql id="sqlQueryJoins">
  from users u
  left join user_roles ur on ur.user_id = u.id
  left join projects p on ur.resource_id = p.id
  inner join organization_members om on u.id=om.user_id and
om.organization_uuid=#{ query.organizationUuid,jdbcType=VARCHAR }
</sql>

```

```

<sql id="sqlQueryFilters">
  and u.active = ${_true}
  <if test="query.searchQueryToSql != null">
    and (
      lower(u.name) like #{query.searchQueryToSqlLowercase,jdbcType=VARCHAR} ESCAPE '/'
      or u.email like #{query.searchQueryToSql,jdbcType=VARCHAR} ESCAPE '/'
      or u.login like #{query.searchQueryToSql,jdbcType=VARCHAR} ESCAPE '/')
    </if>
  <!-- filter rows with user permissions -->
  <if test="query.withAtLeastOnePermission()">
    and ur.organization_uuid = om.organization_uuid
    and ur.role is not null
    <if test="query.componentUuid==null">
      and ur.resource_id is null
    </if>
    <if test="query.componentUuid!=null">
      and p.uuid = #{query.componentUuid,jdbcType=VARCHAR}
    </if>
    <if test="query.permission!=null">
      and ur.role = #{query.permission,jdbcType=VARCHAR}
    </if>
  </if>

```

```
</if>
</sql>
```

```
<select id="selectGlobalPermissionsOfUser" parameterType="map" resultType="string">
  select ur.role
  from user_roles ur
  where
  ur.organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
  ur.user_id = #{userId,jdbcType=INTEGER} and
  ur.resource_id is null
</select>
```

```
<select id="selectProjectPermissionsOfUser" parameterType="map" resultType="string">
  select ur.role
  from user_roles ur
  where
  ur.user_id = #{userId,jdbcType=INTEGER} and
  ur.resource_id = #{projectId,jdbcType=BIGINT}
</select>
```

```
<select id="countUsersByProjectPermission" resultType="org.sonar.db.permission.CountPerProjectPermission">
  select ur.resource_id as componentId, ur.role as permission, count(u.login) as count
  from users u
  inner join user_roles ur on ur.user_id = u.id
  inner join projects p on p.id = ur.resource_id
  where u.active = ${_true}
  and p.id in <foreach collection="projectIds" open="(" close=")" item="projectId"
separator=",">#{projectId}</foreach>
  group by ur.resource_id, ur.role
</select>
```

```
<select id="selectUserIdsWithPermissionOnProjectBut" resultType="Integer">
  select
  distinct ur1.user_id
  from
  user_roles ur1
  where
  ur1.resource_id = #{projectId,jdbcType=BIGINT}
  and role <> #{permission,jdbcType=VARCHAR}
  and not exists (
  select
  1
  from
  user_roles ur2
  where
  ur2.resource_id = ur1.resource_id
  and ur2.user_id = ur1.user_id
  and role = #{permission,jdbcType=VARCHAR}
```

```

)
</select>

<insert id="insert" parameterType="org.sonar.db.permission.UserPermissionDto" useGeneratedKeys="false">
insert into user_roles (
organization_uuid,
user_id,
resource_id,
role
) values (
#{organizationUuid,jdbcType=VARCHAR},
#{userId,jdbcType=INTEGER},
#{componentId,jdbcType=BIGINT},
#{permission,jdbcType=VARCHAR}
)
</insert>

<delete id="deleteGlobalPermission" parameterType="map">
delete from user_roles
where
role = #{permission,jdbcType=VARCHAR} and
user_id = #{userId,jdbcType=INTEGER} and
organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
resource_id is null
</delete>

<delete id="deleteProjectPermission" parameterType="map">
delete from user_roles
where
role = #{permission,jdbcType=VARCHAR} and
user_id = #{userId,jdbcType=INTEGER} and
resource_id = #{projectId,jdbcType=BIGINT}
</delete>

<delete id="deleteProjectPermissions" parameterType="map">
delete from user_roles
where
resource_id = #{projectId,jdbcType=BIGINT}
</delete>

<delete id="deleteProjectPermissionOfAnyUser" parameterType="map">
delete from
user_roles
where
resource_id = #{projectId,jdbcType=BIGINT}
and role = #{permission,jdbcType=VARCHAR}
</delete>

```

```

<delete id="deleteByOrganization" parameterType="String">
  delete from
    user_roles
  where
    organization_uuid = #{organizationUuid,jdbcType=VARCHAR}
</delete>

```

```

<delete id="deleteOrganizationMemberPermissions" parameterType="map">
  delete from
    user_roles
  where
    organization_uuid = #{organizationUuid,jdbcType=VARCHAR} and
    user_id = #{userId,jdbcType=INTEGER}
</delete>

```

```

<delete id="deleteByUserId" parameterType="int">
  DELETE FROM user_roles WHERE user_id=#{userId,jdbcType=INTEGER}
</delete>
</mapper>

```

```

{
  "permissions": [
    {
      "key": "admin",
      "name": "Administer System",
      "description": "Ability to perform all administration functions for the instance: global configuration and
personalization of default dashboards.",
      "usersCount": 0,
      "groupsCount": 1
    },
    {
      "key": "profileadmin",
      "name": "Administer Quality Profiles",
      "description": "Ability to perform any action on the quality profiles.",
      "usersCount": 2,
      "groupsCount": 0
    },
    {
      "key": "gateadmin",
      "name": "Administer Quality Gates",
      "description": "Ability to perform any action on the quality gates.",
      "usersCount": 2,
      "groupsCount": 0
    },
    {
      "key": "scan",
      "name": "Execute Analysis",
      "description": "Ability to execute analyses, and to get all settings required to perform the analysis, even the
secured ones like the scm account password, the jira account password, and so on.",

```

```

    "usersCount": 0,
    "groupsCount": 2
  },
  {
    "key": "provisioning",
    "name": "Create Projects",
    "description": "Ability to initialize project structure before first analysis.",
    "usersCount": 1,
    "groupsCount": 1
  }
]
}
{
  "permissionTemplate": {
    "name": "Finance",
    "description": "Permissions for financially related projects",
    "projectKeyPattern": ".*\\.finance\\..*"
  }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.index;

import com.google.common.collect.ImmutableMap;
import java.util.Optional;
import org.elasticsearch.index.query.BoolQueryBuilder;
import org.elasticsearch.index.query.QueryBuilder;
import org.elasticsearch.index.query.QueryBuilders;
import org.elasticsearch.join.query.JoinQueryBuilders;
import org.sonar.api.ce.ComputeEngineSide;
import org.sonar.api.server.ServerSide;

```

```

import org.sonar.db.user.GroupDto;
import org.sonar.server.es.IndexType;
import org.sonar.server.es.NewIndex;
import org.sonar.server.user.UserSession;

import static com.google.common.base.Preconditions.checkNotNull;
import static java.util.Objects.requireNonNull;
import static org.elasticsearch.index.query.QueryBuilders.boolQuery;
import static org.elasticsearch.index.query.QueryBuilders.termQuery;

@ServerSide
@ComputeEngineSide
public class AuthorizationTypeSupport {

    public static final String TYPE_AUTHORIZATION = "authorization";
    public static final String FIELD_GROUP_IDS = "groupIds";
    public static final String FIELD_USER_IDS = "userIds";

    /**
     * When true, then anybody can access to the project. In that case
     * it's useless to store granted groups and users. The related
     * fields are empty.
     */
    public static final String FIELD_ALLOW_ANYONE = "allowAnyone";

    private final UserSession userSession;

    public AuthorizationTypeSupport(UserSession userSession) {
        this.userSession = userSession;
    }

    /**
     * @return the identifier of the ElasticSearch type (including it's index name), that corresponds to a certain
     document type
     */
    public static IndexType getAuthorizationIndexType(IndexType indexType) {
        requireNonNull(indexType);
        requireNonNull(indexType.getIndex());
        checkArgument(!AuthorizationTypeSupport.TYPE_AUTHORIZATION.equals(indexType.getType()),
"Authorization types do not have authorization on their own.");
        return new IndexType(indexType.getIndex(), AuthorizationTypeSupport.TYPE_AUTHORIZATION);
    }

    /**
     * Creates a type that requires to verify that user has the read permission
     * when searching for documents.
     * It relies on a parent type named "authorization" that is automatically
     * populated by { @link org.sonar.server.permission.index.PermissionIndexer}.

```



```

*
* Both types {@code typeName} and "authorization" are created. Documents
* must be created with _parent and _routing having the parent uuid as values.
*
* @see NewIndex.NewIndexType#requireProjectAuthorization()
*/
public static NewIndex.NewIndexType enableProjectAuthorization(NewIndex.NewIndexType type) {
    type.setAttribute("_parent", ImmutableMap.of("type", TYPE_AUTHORIZATION));
    type.setAttribute("_routing", ImmutableMap.of("required", true));

    NewIndex.NewIndexType authType = type.getIndex().createType(TYPE_AUTHORIZATION);
    authType.setAttribute("_routing", ImmutableMap.of("required", true));
    authType.createLongField(FIELD_GROUP_IDS);
    authType.createLongField(FIELD_USER_IDS);
    authType.createBooleanField(FIELD_ALLOW_ANYONE);
    authType.setEnableSource(false);
    return type;
}

/**
 * Build a filter to restrict query to the documents on which
 * user has read access.
 */
public QueryBuilder createQueryFilter() {
    if (userSession.isRoot()) {
        return QueryBuilders.matchAllQuery();
    }

    Integer userId = userSession.getUserId();
    BoolQueryBuilder filter = boolQuery();

    // anyone
    filter.should(QueryBuilders.termQuery(FIELD_ALLOW_ANYONE, true));

    // users
    Optional.ofNullable(userId)
        .map(Integer::longValue)
        .ifPresent(id -> filter.should(termQuery(FIELD_USER_IDS, id)));

    // groups
    userSession.getGroups()
        .stream()
        .map(GroupDto::getId)
        .forEach(groupId -> filter.should(termQuery(FIELD_GROUP_IDS, groupId)));

    return JoinQueryBuilders.hasParentQuery(
        TYPE_AUTHORIZATION,
        QueryBuilders.boolQuery().filter(filter),

```

```

        false);
    }
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.ws.template;

import org.sonar.api.server.ws.Request;
import org.sonar.api.server.ws.Response;
import org.sonar.api.server.ws.WebService;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.organization.DefaultTemplates;
import org.sonar.db.permission.template.PermissionTemplateDto;
import org.sonar.server.permission.ws.PermissionWsSupport;
import org.sonar.server.permission.ws.PermissionsWsAction;
import org.sonar.server.user.UserSession;

import javax.annotation.CheckForNull;
import javax.annotation.Nullable;

import static org.sonar.server.permission.PermissionPrivilegeChecker.checkGlobalAdmin;
import static org.sonar.server.permission.ws.PermissionsWsParametersBuilder.createTemplateParameters;
import static org.sonar.server.permission.ws.template.WsTemplateRef.newTemplateRef;
import static org.sonar.server.ws.WsUtils.checkFoundWithOptional;
import static org.sonar.server.ws.WsUtils.checkRequest;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_ORGANIZATION;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_ID;
import static org.sonarqube.ws.client.permission.PermissionsWsParameters.PARAM_TEMPLATE_NAME;

public class DeleteTemplateAction implements PermissionsWsAction {

```

```

private final DbClient dbClient;
private final UserSession userSession;
private final PermissionWsSupport finder;
private final DefaultTemplatesResolver defaultTemplatesResolver;

public DeleteTemplateAction(DbClient dbClient, UserSession userSession, PermissionWsSupport support,
DefaultTemplatesResolver defaultTemplatesResolver) {
    this.dbClient = dbClient;
    this.userSession = userSession;
    this.finder = support;
    this.defaultTemplatesResolver = defaultTemplatesResolver;
}

private static DeleteTemplateRequest toDeleteTemplateWsRequest(Request request) {
    return new DeleteTemplateRequest()
        .setTemplateId(request.param(PARAM_TEMPLATE_ID))
        .setOrganization(request.param(PARAM_ORGANIZATION))
        .setTemplateName(request.param(PARAM_TEMPLATE_NAME));
}

@Override
public void define(WebService.NewController context) {
    WebService.NewAction action = context.createAction("delete_template")
        .setDescription("Delete a permission template.<br />" +
            "Requires the following permission: 'Administer System'.")
        .setSince("5.2")
        .setPost(true)
        .setHandler(this);

    createTemplateParameters(action);
}

@Override
public void handle(Request request, Response response) throws Exception {
    userSession.checkLoggedIn();
    doHandle(toDeleteTemplateWsRequest(request));
    response.noContent();
}

private void doHandle(DeleteTemplateRequest request) {
    try (DbSession dbSession = dbClient.openSession(false)) {
        PermissionTemplateDto template = finder.findTemplate(dbSession, new TemplateRef(
            request.getTemplateId(), request.getOrganization(), request.getTemplateName()));
        checkGlobalAdmin(userSession, template.getOrganizationUuid());

        DefaultTemplates defaultTemplates = retrieveDefaultTemplates(dbSession, template);

        checkTemplateUuidIsNotDefault(template, defaultTemplates);
    }
}

```

```

dbClient.permissionTemplateDao().deleteById(dbSession, template.getId());
updateViewDefaultTemplateWhenGovernanceIsNotInstalled(dbSession, template, defaultTemplates);

dbSession.commit();
}
}

/**
 * The default template for view can be removed when Governance is not installed. To avoid keeping a reference
 * to a non existing template, we update the default templates.
 */
private void updateViewDefaultTemplateWhenGovernanceIsNotInstalled(DbSession dbSession,
PermissionTemplateDto template, DefaultTemplates defaultTemplates) {
String viewDefaultTemplateUuid = defaultTemplates.getViewUuid();
if (viewDefaultTemplateUuid != null && viewDefaultTemplateUuid.equals(template.getUuid())) {
defaultTemplates.setViewUuid(null);
dbClient.organizationDao().setDefaultTemplates(dbSession, template.getOrganizationUuid(), defaultTemplates);
}
}

private DefaultTemplates retrieveDefaultTemplates(DbSession dbSession, PermissionTemplateDto template) {
return checkFoundWithOptional(
dbClient.organizationDao().getDefaultTemplates(dbSession, template.getOrganizationUuid()),
"Can't find default templates of Organization with uuid '%s' to which template with uuid '%s' belongs",
template.getOrganizationUuid(), template.getUuid());
}

private void checkTemplateUuidIsNotDefault(PermissionTemplateDto template, DefaultTemplates
defaultTemplates) {
DefaultTemplatesResolverImpl.ResolvedDefaultTemplates resolvedDefaultTemplates =
defaultTemplatesResolver.resolve(defaultTemplates);
checkRequest(!resolvedDefaultTemplates.getProject().equals(template.getUuid()),
"It is not possible to delete the default permission template for projects");
resolvedDefaultTemplates.getView()
.isPresent(viewDefaultTemplateUuid -> checkRequest(
!viewDefaultTemplateUuid.equals(template.getUuid()),
"It is not possible to delete the default permission template for views"));
}

private static class DeleteTemplateRequest {
private String templateId;
private String organization;
private String templateName;

@CheckForNull
public String getTemplateId() {
return templateId;
}
}

```

```

public DeleteTemplateRequest setTemplateId(@Nullable String templateId) {
    this.templateId = templateId;
    return this;
}

@CheckForNull
public String getOrganization() {
    return organization;
}

public DeleteTemplateRequest setOrganization(@Nullable String s) {
    this.organization = s;
    return this;
}

@CheckForNull
public String getTemplateName() {
    return templateName;
}

public DeleteTemplateRequest setTemplateName(@Nullable String templateName) {
    this.templateName = templateName;
    return this;
}
}
}
}
/*
 * SonarQube
 * Copyright (C) 2009-2018 SonarSource SA
 * mailto:info AT sonarsource DOT com
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU Lesser General Public
 * License as published by the Free Software Foundation; either
 * version 3 of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
 * Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program; if not, write to the Free Software Foundation,
 * Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
 */
package org.sonar.server.permission.index;

```

```

import java.util.ArrayList;
import java.util.Collection;
import java.util.List;
import java.util.Map;
import java.util.function.Function;
import org.junit.Before;
import org.junit.Rule;
import org.junit.Test;
import org.sonar.api.utils.System2;
import org.sonar.core.util.stream.MoreCollectors;
import org.sonar.db.DbClient;
import org.sonar.db.DbSession;
import org.sonar.db.DbTester;
import org.sonar.db.component.ComponentDbTester;
import org.sonar.db.component.ComponentDto;
import org.sonar.db.component.ComponentTesting;
import org.sonar.db.organization.OrganizationDto;
import org.sonar.db.permission.GroupPermissionDto;
import org.sonar.db.user.GroupDto;
import org.sonar.db.user.UserDbTester;
import org.sonar.db.user.UserDto;

import static java.util.Arrays.asList;
import static java.util.Collections.singletonList;
import static org.assertj.core.api.Assertions.assertThat;
import static org.sonar.api.resources.Qualifiers.APP;
import static org.sonar.api.resources.Qualifiers.PROJECT;
import static org.sonar.api.resources.Qualifiers.VIEW;
import static org.sonar.api.web.UserRole.ADMIN;
import static org.sonar.api.web.UserRole.USER;

public class PermissionIndexerDaoTest {

    @Rule
    public DbTester dbTester = DbTester.create(System2.INSTANCE);

    private DbClient dbClient = dbTester.getDbClient();
    private DbSession dbSession = dbTester.getSession();

    private ComponentDbTester componentDbTester = new ComponentDbTester(dbTester);
    private UserDbTester userDbTester = new UserDbTester(dbTester);

    private OrganizationDto organization;
    private ComponentDto publicProject;
    private ComponentDto privateProject1;
    private ComponentDto privateProject2;
    private ComponentDto view1;
    private ComponentDto view2;

```

```

private ComponentDto application;
private UserDto user1;
private UserDto user2;
private GroupDto group;

private PermissionIndexerDao underTest = new PermissionIndexerDao();

@Before
public void setUp() {
    organization = dbTester.organizations().insert();
    publicProject = componentDbTester.insertPublicProject(organization);
    privateProject1 = componentDbTester.insertPrivateProject(organization);
    privateProject2 = componentDbTester.insertPrivateProject(organization);
    view1 = componentDbTester.insertView(organization);
    view2 = componentDbTester.insertView(organization);
    application = componentDbTester.insertApplication(organization);
    user1 = userDbTester.insertUser();
    user2 = userDbTester.insertUser();
    group = userDbTester.insertGroup(organization);
}

@Test
public void select_all() {
    insertTestDataForProjectsAndViews();

    Collection<PermissionIndexerDao.Dto> dtos = underTest.selectAll(dbClient, dbSession);
    assertThat(dtos).hasSize(6);

    PermissionIndexerDao.Dto publicProjectAuthorization = getByProjectUuid(publicProject.uuid(), dtos);
    isPublic(publicProjectAuthorization, PROJECT);

    PermissionIndexerDao.Dto view1Authorization = getByProjectUuid(view1.uuid(), dtos);
    isPublic(view1Authorization, VIEW);

    PermissionIndexerDao.Dto applicationAuthorization = getByProjectUuid(application.uuid(), dtos);
    isPublic(applicationAuthorization, APP);

    PermissionIndexerDao.Dto privateProject1Authorization = getByProjectUuid(privateProject1.uuid(), dtos);
    assertThat(privateProject1Authorization.getGroupIds()).containsOnly(group.getId());
    assertThat(privateProject1Authorization.isAllowAnyone()).isFalse();
    assertThat(privateProject1Authorization.getUserIds()).containsOnly(user1.getId(), user2.getId());
    assertThat(privateProject1Authorization.getQualifier()).isEqualTo(PROJECT);

    PermissionIndexerDao.Dto privateProject2Authorization = getByProjectUuid(privateProject2.uuid(), dtos);
    assertThat(privateProject2Authorization.getGroupIds()).isEmpty();
    assertThat(privateProject2Authorization.isAllowAnyone()).isFalse();
    assertThat(privateProject2Authorization.getUserIds()).containsOnly(user1.getId());
    assertThat(privateProject2Authorization.getQualifier()).isEqualTo(PROJECT);
}

```

```

PermissionIndexerDao.Dto view2Authorization = getByProjectUuid(view2.uuid(), dtos);
isPublic(view2Authorization, VIEW);
}

@Test
public void selectByUuids() {
    insertTestDataForProjectsAndViews();

    Map<String, PermissionIndexerDao.Dto> dtos = underTest
        .selectByUuids(dbClient, dbSession, asList(publicProject.uuid(), privateProject1.uuid(), privateProject2.uuid(),
view1.uuid(), view2.uuid(), application.uuid()))
        .stream()
        .collect(MoreCollectors.uniqueIndex(PermissionIndexerDao.Dto::getProjectUuid, Function.identity()));
    assertThat(dtos).hasSize(6);

    PermissionIndexerDao.Dto publicProjectAuthorization = dtos.get(publicProject.uuid());
    isPublic(publicProjectAuthorization, PROJECT);

    PermissionIndexerDao.Dto view1Authorization = dtos.get(view1.uuid());
    isPublic(view1Authorization, VIEW);

    PermissionIndexerDao.Dto applicationAuthorization = dtos.get(application.uuid());
    isPublic(applicationAuthorization, APP);

    PermissionIndexerDao.Dto privateProject1Authorization = dtos.get(privateProject1.uuid());
    assertThat(privateProject1Authorization.getGroupIds()).containsOnly(group.getId());
    assertThat(privateProject1Authorization.isAllowAnyone()).isFalse();
    assertThat(privateProject1Authorization.getUserIds()).containsOnly(user1.getId(), user2.getId());
    assertThat(privateProject1Authorization.getQualifier()).isEqualTo(PROJECT);

    PermissionIndexerDao.Dto privateProject2Authorization = dtos.get(privateProject2.uuid());
    assertThat(privateProject2Authorization.getGroupIds()).isEmpty();
    assertThat(privateProject2Authorization.isAllowAnyone()).isFalse();
    assertThat(privateProject2Authorization.getUserIds()).containsOnly(user1.getId());
    assertThat(privateProject2Authorization.getQualifier()).isEqualTo(PROJECT);

    PermissionIndexerDao.Dto view2Authorization = dtos.get(view2.uuid());
    isPublic(view2Authorization, VIEW);
}

@Test
public void selectByUuids_returns_empty_list_when_project_does_not_exist() {
    insertTestDataForProjectsAndViews();

    List<PermissionIndexerDao.Dto> dtos = underTest.selectByUuids(dbClient, dbSession, asList("missing"));
    assertThat(dtos).isEmpty();
}

```



```

@Test
public void select_by_projects_with_high_number_of_projects() {
    List<String> projectUuids = new ArrayList<>();
    for (int i = 0; i < 350; i++) {
        ComponentDto project = ComponentTesting.newPrivateProjectDto(organization, Integer.toString(i));
        dbClient.componentDao().insert(dbSession, project);
        projectUuids.add(project.uuid());
        GroupPermissionDto dto = new GroupPermissionDto()
            .setOrganizationUuid(group.getOrganizationUuid())
            .setGroupId(group.getId())
            .setRole(USER)
            .setResourceId(project.getId());
        dbClient.groupPermissionDao().insert(dbSession, dto);
    }
    dbSession.commit();

    assertThat(underTest.selectByUuids(dbClient, dbSession, projectUuids)
        .hasSize(350)
        .extracting(PermissionIndexerDao.Dto::getProjectUuid)
        .containsAll(projectUuids);
    }
}

```

```

@Test
public void return_private_project_without_any_permission_when_no_permission_in_DB() {
    List<PermissionIndexerDao.Dto> dtos = underTest.selectByUuids(dbClient, dbSession,
        singletonList(privateProject1.uuid()));

    // no permissions
    assertThat(dtos).hasSize(1);
    PermissionIndexerDao.Dto dto = dtos.get(0);
    assertThat(dto.getGroupIds()).isEmpty();
    assertThat(dto.getUserIds()).isEmpty();
    assertThat(dto.isAllowAnyone()).isFalse();
    assertThat(dto.getProjectUuid()).isEqualTo(privateProject1.uuid());
    assertThat(dto.getQualifier()).isEqualTo(privateProject1.qualifier());
}

```

```

@Test
public void return_public_project_with_only_AllowAnyone_true_when_no_permission_in_DB() {
    List<PermissionIndexerDao.Dto> dtos = underTest.selectByUuids(dbClient, dbSession,
        singletonList(publicProject.uuid()));

    assertThat(dtos).hasSize(1);
    PermissionIndexerDao.Dto dto = dtos.get(0);
    assertThat(dto.getGroupIds()).isEmpty();
    assertThat(dto.getUserIds()).isEmpty();
    assertThat(dto.isAllowAnyone()).isTrue();
}

```

```

    assertThat(dto.getProjectUuid()).isEqualTo(publicProject.uuid());
    assertThat(dto.getQualifier()).isEqualTo(publicProject.qualifier());
}

@Test
public void
return_private_project_with_AllowAnyone_false_and_user_id_when_user_is_granted_USER_permission_directly(
) {
    dbTester.users().insertProjectPermissionOnUser(user1, USER, privateProject1);
    List<PermissionIndexerDao.Dto> dtos = underTest.selectByUuids(dbClient, dbSession,
singletonList(privateProject1.uuid()));

    assertThat(dtos).hasSize(1);
    PermissionIndexerDao.Dto dto = dtos.get(0);
    assertThat(dto.getGroupIds()).isEmpty();
    assertThat(dto.getUserIds()).containsOnly(user1.getId());
    assertThat(dto.isAllowAnyone()).isFalse();
    assertThat(dto.getProjectUuid()).isEqualTo(privateProject1.uuid());
    assertThat(dto.getQualifier()).isEqualTo(privateProject1.qualifier());
}

@Test
public void
return_private_project_with_AllowAnyone_false_and_group_id_but_not_user_id_when_user_is_granted_USER_p
ermission_through_group() {
    dbTester.users().insertMember(group, user1);
    dbTester.users().insertProjectPermissionOnGroup(group, USER, privateProject1);
    List<PermissionIndexerDao.Dto> dtos = underTest.selectByUuids(dbClient, dbSession,
singletonList(privateProject1.uuid()));

    assertThat(dtos).hasSize(1);
    PermissionIndexerDao.Dto dto = dtos.get(0);
    assertThat(dto.getGroupIds()).containsOnly(group.getId());
    assertThat(dto.getUserIds()).isEmpty();
    assertThat(dto.isAllowAnyone()).isFalse();
    assertThat(dto.getProjectUuid()).isEqualTo(privateProject1.uuid());
    assertThat(dto.getQualifier()).isEqualTo(privateProject1.qualifier());
}

private void isPublic(PermissionIndexerDao.Dto view1Authorization, String qualifier) {
    assertThat(view1Authorization.getGroupIds()).isEmpty();
    assertThat(view1Authorization.isAllowAnyone()).isTrue();
    assertThat(view1Authorization.getUserIds()).isEmpty();
    assertThat(view1Authorization.getQualifier()).isEqualTo(qualifier);
}

private static PermissionIndexerDao.Dto getByProjectUuid(String projectUuid,
Collection<PermissionIndexerDao.Dto> dtos) {

```

```

return dtos.stream().filter(dto ->
dto.getProjectUuid().equals(projectUuid)).findFirst().orElseThrow(IllegalArgumentException::new);
}

private void insertTestDataForProjectsAndViews() {
// user1 has USER access on both private projects
userDbTester.insertProjectPermissionOnUser(user1, ADMIN, publicProject);
userDbTester.insertProjectPermissionOnUser(user1, USER, privateProject1);
userDbTester.insertProjectPermissionOnUser(user1, USER, privateProject2);
userDbTester.insertProjectPermissionOnUser(user1, ADMIN, view1);
userDbTester.insertProjectPermissionOnUser(user1, ADMIN, application);

// user2 has USER access on privateProject1 only
userDbTester.insertProjectPermissionOnUser(user2, USER, privateProject1);
userDbTester.insertProjectPermissionOnUser(user2, ADMIN, privateProject2);

// group1 has USER access on privateProject1 only
userDbTester.insertProjectPermissionOnGroup(group, USER, privateProject1);
userDbTester.insertProjectPermissionOnGroup(group, ADMIN, privateProject1);
userDbTester.insertProjectPermissionOnGroup(group, ADMIN, view1);
userDbTester.insertProjectPermissionOnGroup(group, ADMIN, application);
}
}

```

1.82 identity-obj-proxy 3.0.0

1.82.1 Available under license :

MIT License

SPDX short identifier: MIT

Copyright <YEAR> <COPYRIGHT HOLDER>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.83 react-redux 5.0.5

1.83.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015-present Dan Abramov

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.84 babel-preset-es2015 6.24.1

1.84.1 Available under license :

Apache License
Version 2.0, January 2011
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common

control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or

documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill,

work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.85 nodemon 1.12.1

1.85.1 Available under license :

(The MIT License)

Copyright (c) 2010 Sencha Inc.

Copyright (c) 2011 LearnBoost

Copyright (c) 2011 TJ Holowaychuk

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (C) 2011 Peter Zotov <whitequark@whitequark.org>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 2010 Benjamin Thomas, Robert Kieffer

Permission is hereby granted, free of charge, to any person obtaining a copy

of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013 Jonathan Ong <me@jungleberry.com>

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 TJ Holowaychuk

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish,

distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2009-2014 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright (c) 2014 Jonathan Ong me@jungleberry.com

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

// MIT License

Copyright (C) Roman Shtylman <shtylman@gmail.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jungleberry.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT,

TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Jonathan Ong <me@jungleberry.com>

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013-2014 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2013 Jared Hanson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 2014 Nathan LaFreniere and other contributors.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * The names of any contributors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS AND CONTRIBUTORS BE LIABLE FOR ANY

DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

* * *

The complete list of contributors can be found at: <https://github.com/hapijs/qs/graphs/contributors>
The MIT License (MIT)

Copyright (c) 2014 Jonathan Ong me@jongleberry.com

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright 2014 Alex Gorbachev

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012-2014 TJ Holowaychuk <vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 Federico Romero

Copyright (c) 2012-2014 Isaac Z. Schlueter

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including

without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2012 TJ Holowaychuk <tj@vision-media.ca>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

(The MIT License)

Copyright (c) 2014 Douglas Christopher Wilson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.86 redux 3.5.2

1.86.1 Available under license :

The [Redux logo](./logo/) is dedicated to the public domain and licensed under CC0(<http://creativecommons.org/publicdomain/zero/1.0/>).

You can copy, modify, and distribute it, even for commercial purposes, all without asking permission.

[Read more about CC0.](<http://creativecommons.org/publicdomain/zero/1.0/>)

You can find its legal text below.

Creative Commons Zero v1.0 Universal

CC0 1.0 Universal

Statement of Purpose

The laws of most jurisdictions throughout the world automatically confer exclusive Copyright and Related Rights (defined below) upon the creator and subsequent owner(s) (each and all, an "owner") of an original work of authorship and/or a database (each, a "Work").

Certain owners wish to permanently relinquish those rights to a Work for the purpose of contributing to a commons of creative, cultural and scientific works ("Commons") that the public can reliably and without fear of later claims of infringement build upon, modify, incorporate in other works, reuse and redistribute as freely as possible in any form whatsoever and for any purposes, including without limitation commercial purposes. These owners may contribute to the Commons to promote the ideal of a free culture and the further production of creative, cultural and scientific works, or to gain reputation or greater distribution for their Work in part through the use and efforts of others.

For these and/or other purposes and motivations, and without any expectation of additional consideration or compensation, the person associating CC0 with a Work (the "Affirmer"), to the extent that he or she is an owner of Copyright

and Related Rights in the Work, voluntarily elects to apply CC0 to the Work and publicly distribute the Work under its terms, with knowledge of his or her Copyright and Related Rights in the Work and the meaning and intended legal effect of CC0 on those rights.

1. Copyright and Related Rights. A Work made available under CC0 may be protected by copyright and related or neighboring rights ("Copyright and Related Rights"). Copyright and Related Rights include, but are not limited to, the following:

- i. the right to reproduce, adapt, distribute, perform, display, communicate, and translate a Work;
- ii. moral rights retained by the original author(s) and/or performer(s);
- iii. publicity and privacy rights pertaining to a person's image or likeness depicted in a Work;
- iv. rights protecting against unfair competition in regards to a Work, subject to the limitations in paragraph 4(a), below;
- v. rights protecting the extraction, dissemination, use and reuse of data in a Work;
- vi. database rights (such as those arising under Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, and under any national implementation thereof, including any amended or successor version of such directive); and
- vii. other similar, equivalent or corresponding rights throughout the world based on applicable law or treaty, and any national implementations thereof.

2. Waiver. To the greatest extent permitted by, but not in contravention of, applicable law, Affirmer hereby overtly, fully, permanently, irrevocably and unconditionally waives, abandons, and surrenders all of Affirmer's Copyright and Related Rights and associated claims and causes of action, whether now known or unknown (including existing as well as future claims and causes of action), in the Work (i) in all territories worldwide, (ii) for the maximum duration provided by applicable law or treaty (including future time extensions), (iii) in any current or future medium and for any number of copies, and (iv) for any purpose whatsoever, including without limitation commercial, advertising or promotional purposes (the "Waiver"). Affirmer makes the Waiver for the benefit of each member of the public at large and to the detriment of Affirmer's heirs and successors, fully intending that such Waiver shall not be subject to revocation, rescission, cancellation, termination, or any other legal or equitable action to disrupt the quiet enjoyment of the Work by the public as contemplated by Affirmer's express Statement of Purpose.

3. Public License Fallback. Should any part of the Waiver for any reason be judged legally invalid or ineffective under applicable law, then the Waiver shall be preserved to the maximum extent permitted taking into account Affirmer's express Statement of Purpose. In addition, to the extent the Waiver is so judged Affirmer hereby grants to each affected person a royalty-free, non transferable, non sublicensable, non exclusive, irrevocable and unconditional license to exercise Affirmer's Copyright and Related Rights in the Work (i) in all territories worldwide, (ii) for the maximum duration provided by applicable law or treaty (including future time extensions), (iii) in any current or future medium and for any number of copies, and (iv) for any purpose whatsoever, including without limitation commercial, advertising or promotional purposes (the "License"). The License shall be deemed effective as of the date CC0 was applied by Affirmer to the Work. Should any part of the License for any reason be judged legally invalid or ineffective under applicable law, such partial invalidity or ineffectiveness shall not invalidate the remainder of the License, and in such case Affirmer hereby affirms that he or she will not (i) exercise any of his or her remaining Copyright and Related Rights in the Work or (ii) assert any associated claims and causes of action with respect to the Work, in either case contrary to Affirmer's express Statement of Purpose.

4. Limitations and Disclaimers.

- a. No trademark or patent rights held by Affirmer are waived, abandoned, surrendered, licensed or otherwise affected by this document.
- b. Affirmer offers the Work as-is and makes no representations or warranties of any kind concerning the Work, express, implied, statutory or otherwise, including without limitation warranties of title, merchantability, fitness for a particular purpose, non infringement, or the absence of latent or other defects, accuracy, or the present or absence of errors, whether or not discoverable, all to the greatest extent permissible under applicable law.
- c. Affirmer disclaims responsibility for clearing rights of other persons that may apply to the Work or any use thereof, including without limitation any person's Copyright and Related Rights in the Work. Further, Affirmer disclaims responsibility for obtaining any necessary consents, permissions or other rights required for any use of the Work.
- d. Affirmer understands and acknowledges that Creative Commons is not a party to this document and has no duty or obligation with respect to this CC0 or use of the Work.

For more information, please see

<<http://creativecommons.org/publicdomain/zero/1.0/>>

The MIT License (MIT)

Copyright (c) 2015-present Dan Abramov

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.87 redux-thunk 2.1.0

1.87.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015-present Dan Abramov

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.88 moment-timezone 0.5.16

1.88.1 Available under license :

The MIT License (MIT)

Copyright (c) JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.89 elasticsearch 6.2.0

1.89.1 Available under license :

Elasticsearch

Copyright 2009-2017 Elasticsearch

This product includes software developed by The Apache Software Foundation (<http://www.apache.org/>).

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not

pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special,

incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.90 jackson-databind 2.9.9

1.90.1 Available under license :

This copy of Jackson JSON processor databind module is licensed under the Apache (Software) License, version 2.0 ("the License").

See the License for details about distribution rights, and the specific rights regarding derivate works.

You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.

It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.

It is currently developed by a community of developers, as well as supported commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.

To find the details that apply to this artifact see the accompanying LICENSE file.

For more information, including possible other licensing options, contact FasterXML.com (<http://fasterxml.com>).

Credits

A list of contributors may be found from CREDITS file, which is included in some artifacts (usually source distributions); but is always available from the source code management (SCM) system project uses.

1.91 babel-preset-stage-2 6.24.1

1.91.1 Available under license :

Released under MIT License

Copyright (c) 2013 Mark Otto.

Copyright (c) 2017 Andrew Fong.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.92 istanbul *

1.92.1 Available under license :

Copyright 2012 Yahoo! Inc.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of the Yahoo! Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL YAHOO! INC. BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.93 multer 1.3.0

1.93.1 Available under license :

Copyright (c) 2014 Hage Yaapa <<http://www.hacksparrow.com>)(<http://www.hacksparrow.com>)>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights

to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.94 ajv 5.5.2

1.94.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 Evgeny Poberezkin

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The MIT License (MIT)

Copyright (c) 2015 Evgeny Poberezkin

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell

copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.95 react-ace 5.2.2

1.95.1 Available under license :

The MIT License (MIT)

Copyright (c) 2014 James Hrisho

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.96 babel-cli 6.8.0

1.97 swagger-core 1.5.19

1.97.1 Available under license :

```
/**
 * Copyright 2017 SmartBear Software
 * <p>
 * Licensed under the Apache License, Version 2.0 (the "License");
 * you may not use this file except in compliance with the License.
 * You may obtain a copy of the License at
 * <p>
 * http://www.apache.org/licenses/LICENSE-2.0
 * <p>
 * Unless required by applicable law or agreed to in writing, software
 * distributed under the License is distributed on an "AS IS" BASIS,
 * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
 * See the License for the specific language governing permissions and
 * limitations under the License.
 */

package io.swagger.v3.oas.annotations.info;

import io.swagger.v3.oas.annotations.extensions.Extension;

import java.lang.annotation.Retention;
import java.lang.annotation.RetentionPolicy;
import java.lang.annotation.Target;

/**
 * The annotation may be used in { @link Info#license() } to define a license for the OpenAPI spec.
 *
 * @see <a target="_new" href="https://github.com/OAI/OpenAPI-
Specification/blob/3.0.1/versions/3.0.1.md#licenseObject">License (OpenAPI specification)</a>
 * @see io.swagger.v3.oas.annotations.OpenAPIDefinition
 * @see Info
 */
@Target({})
@Retention(RetentionPolicy.RUNTIME)
public @interface License {
    /**
     * The license name used for the API.
     *
     * @return the name of the license
     */
    String name() default "";

    /**
     * A URL to the license used for the API. MUST be in the format of a URL.

```

```

*
* @return the URL of the license
**/
String url() default "";

/**
* The list of optional extensions
*
* @return an optional array of extensions
*/
Extension[] extensions() default { };

}
/**
* Copyright 2017 SmartBear Software
* <p>
* Licensed under the Apache License, Version 2.0 (the "License");
* you may not use this file except in compliance with the License.
* You may obtain a copy of the License at
* <p>
* http://www.apache.org/licenses/LICENSE-2.0
* <p>
* Unless required by applicable law or agreed to in writing, software
* distributed under the License is distributed on an "AS IS" BASIS,
* WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
* See the License for the specific language governing permissions and
* limitations under the License.
*/

package io.swagger.v3.oas.models.info;

import java.util.Objects;

/**
* License
*
* @see "https://github.com/OAI/OpenAPI-Specification/blob/3.0.1/versions/3.0.1.md#licenseObject"
*/

public class License {
    private String name = null;
    private String url = null;
    private java.util.Map<String, Object> extensions = null;

    /**
    * returns the name property from a License instance.
    *
    * @return String name

```



```

    **/

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public License name(String name) {
        this.name = name;
        return this;
    }

    /**
     * returns the url property from a License instance.
     *
     * @return String url
     */

    public String getUrl() {
        return url;
    }

    public void setUrl(String url) {
        this.url = url;
    }

    public License url(String url) {
        this.url = url;
        return this;
    }

    @Override
    public boolean equals(java.lang.Object o) {
        if (this == o) {
            return true;
        }
        if (o == null || getClass() != o.getClass()) {
            return false;
        }
        License license = (License) o;
        return Objects.equals(this.name, license.name) &&
            Objects.equals(this.url, license.url) &&
            Objects.equals(this.extensions, license.extensions);
    }
}

```

```

@Override
public int hashCode() {
    return Objects.hash(name, url, extensions);
}

public java.util.Map<String, Object> getExtensions() {
    return extensions;
}

public void addExtension(String name, Object value) {
    if (name == null || name.isEmpty() || !name.startsWith("x-")) {
        return;
    }
    if (this.extensions == null) {
        this.extensions = new java.util.HashMap<>();
    }
    this.extensions.put(name, value);
}

public void setExtensions(java.util.Map<String, Object> extensions) {
    this.extensions = extensions;
}

public License extensions(java.util.Map<String, Object> extensions) {
    this.extensions = extensions;
    return this;
}

@Override
public String toString() {
    StringBuilder sb = new StringBuilder();
    sb.append("class License {\n");

    sb.append("    name: ").append(toIndentedString(name)).append("\n");
    sb.append("    url: ").append(toIndentedString(url)).append("\n");
    sb.append("}");
    return sb.toString();
}

/**
 * Convert the given object to string with each line indented by 4 spaces
 * (except the first line).
 */
private String toIndentedString(java.lang.Object o) {
    if (o == null) {
        return "null";
    }
    return o.toString().replace("\n", "\n    ");
}

```

}

}

Copyright 2018 SmartBear Software

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at [apache.org/licenses/LICENSE-
2.0](http://www.apache.org/licenses/LICENSE-2.0)

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.

1.98 yup 0.25.1

1.98.1 Available under license :

The MIT License (MIT)

Copyright (c) 2014 Jason Quense

Permission is hereby granted, free of charge, to any person obtaining a copy
of this software and associated documentation files (the "Software"), to deal
in the Software without restriction, including without limitation the rights
to use, copy, modify, merge, publish, distribute, sublicense, and/or sell
copies of the Software, and to permit persons to whom the Software is
furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all
copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE
AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM,
OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE
SOFTWARE.

1.99 codemirror 5.37.0

1.99.1 Available under license :

MIT License

Copyright (C) 2017 by Marijn Haverbeke <marijnh@gmail.com> and others

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.100 react-select 1.2.1

1.100.1 Available under license :

The MIT License (MIT)

Copyright (c) 2018 Jed Watson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.101 react-dom 16.2.0

1.101.1 Available under license :

/**

* Copyright (c) 2013-present, Facebook, Inc.

*

* This source code is licensed under the MIT license found in the

* LICENSE file in the root directory of this source tree.

*

* @flow

*/

'use strict';

module.exports = require('./server.node');

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.102 babel-core 6.26.0

1.103 babel-preset-es2015 6.6.0

1.103.1 Available under license :

Apache License
Version 2.0, January 2011
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the

editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the

Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the

same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.104 apache-commons-text 1.2

1.104.1 Available under license :

Apache Commons Text
Copyright 2001-2017 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of,

publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution

notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing

the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.105 snake-yaml 1.2

1.105.1 Available under license :

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to

communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of

the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

1.106 jna 3.5.1

1.106.1 Available under license :

Apache Ant
Copyright 1999-2015 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

The <sync> task is based on code Copyright (c) 2002, Landmark Graphics Corp that has been kindly donated to the Apache Software Foundation.

```
0Jclover/com/atlassian/extras/core/DefaultProductLicense$DefaultOrganisationjava/lang/Object, clover/com/atlassian/extras/api/OrganisationDefaultProductLicense.java6clover/com/atlassian/extras/core/DefaultProductLicenseDefaultOrganisationnameLjava/lang/String;<init>(Ljava/lang/String;)V()V  
thisLLclover/com/atlassian/extras/core/DefaultProductLicense$DefaultOrganisation;getName()Ljava/lang/String;CodeLocalVariableTableLineNumberTable  
SourceFileInnerClasses0
```

F
**+

```

/*
0tMclover/com/atlassian/license/applications/vssplugin/VSSPluginLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreVSSPluginLicenseTypeStore.javaVSS_ACADEMIC*Lclover/com/at
lassian/license/LicenseType;VSS_EVALUATIONVSS_NON_PROFITVSS_FULL_LICENSE
VSS_COMMUNITY
VSS_DEVELOPERVSS_DEMONSTRATIONVSS_OPEN_SOURCEpublicKeyFileNameLjava/lang/String;private
KeyFileName<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z
" $
& ( *
,
.thisOLclover/com/atlassian/license/applications/vssplugin/VSSPluginLicenseTypeStore;getAllLicenses()Ljava/util/
Collection;getPublicKeyFileName()Ljava/lang/String; 6getPrivateKeyFileName
9<clinit>/clover/com/atlassian/license/DefaultLicenseType<
VSS: Academic>+clover/com/atlassian/extras/api/LicenseType@ACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;BC ADnameF5
AG*(ILjava/lang/String;ZZLjava/lang/String;)VI
=JVSS: EvaluationL
COMMERCIALNC AOVSS: Non-Profit / Open SourceQ
NON_PROFITSC ATVSS: CommercialVVSS: CommunityX COMMUNITYZC A[VSS: Developer]
DEVELOPER_C A`VSS: Demonstrationb
DEMONSTRATIONdC AeVSS: Open SourcegOPEN_SOURCEiC
AjCclover/com/atlassian/license/applications/jira/JiraLicenseTypeStoreI m6
m9CodeLocalVariableTableLineNumberTable
SourceFile!

```

```

p]**!W*#!W*%!W*!W*)!W*+!W*~!W*!/Wq]01r*
!"#%$0%:&F'Q(\)23p/*q01r-
45p.7q01r285p.:q01r7;p=Y@?EHK=YAMPHK#=YBRUHK%=YCWPHK'=YDY\HK)=YE^aHK+=YFcfHK-
=YGhkHK/n7o:r*
.E\ss
0-
.clover/com/atlassian/extras/api/ProductLicensejava/lang/ObjectProductLicense.javagetLicenseVersion()IgetDescrip
tion()Ljava/lang/String;
getProduct+()Lclover/com/atlassian/extras/api/Product;getServerId
getPartner+()Lclover/com/atlassian/extras/api/Partner;getOrganisation0()Lclover/com/atlassian/extras/api/Organisati
on;getContacts()Ljava/util/Collection;getCreationDate()Ljava/util/Date;getPurchaseDate
getExpiryDategetNumberOfDaysBeforeExpiry
isExpired()ZgetGracePeriodEndDate&getNumberOfDaysBeforeGracePeriodExpiryisWithinGracePeriodisGracePeri
odExpiredgetSupportEntitlementNumbergetMaintenanceExpiryDate&getNumberOfDaysBeforeMaintenanceExpiryi
sMaintenanceExpiredgetMaximumNumberOfUsersisUnlimitedNumberOfUsersisEvaluationisSubscriptiongetLicens
eType/()Lclover/com/atlassian/extras/api/LicenseType;getProperty&(Ljava/lang/String;)Ljava/lang/String;
SignatureC()Ljava/util/Collection<Lclover/com/atlassian/extras/api/Contact;>;
SourceFile
*+ !"#$$%&'(),

```

```
0<clover/com/atlassian/extras/core/clover/DefaultCloverLicense6clover/com/atlassian/extras/core/DefaultProductLi
cense4clover/com/atlassian/extras/api/clover/CloverLicenseDefaultCloverLicense.java<init>g(Lclover/com/atlassia
n/extras/api/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V
```

```
this>Lclover/com/atlassian/extras/core/clover/DefaultCloverLicense;product)Lclover/com/atlassian/extras/api/Produ
ct;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;CodeLocalVariableTableLineNum
berTable
```

```
SourceFile I*+,
```

```
0)Fclover/com/atlassian/extras/core/greenhopper/DefaultGreenHopperLicense=clover/com/atlassian/extras/core/plu
gins/DefaultPluginLicense>clover/com/atlassian/extras/api/greenhopper/GreenHopperLicenseDefaultGreenHopperL
icense.javalicenseEdition0Lclover/com/atlassian/extras/api/LicenseEdition;<init>g(Lclover/com/atlassian/extras/api
/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V
```

```
LicenseEdition9clover/com/atlassian/extras/common/util/LicensePropertiesgetProperty&(Ljava/lang/String;)Ljava/l
ang/String;@clover/com/atlassian/extras/common/LicenseTypeAndEditionResolvergetLicenseEditionD(Ljava/lang/
String;)Lclover/com/atlassian/extras/api/LicenseEdition;
```

```
thisHLclover/com/atlassian/extras/core/greenhopper/DefaultGreenHopperLicense;product)Lclover/com/atlassian/ext
ras/api/Product;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;2()Lclover/com/atlas
sian/extras/api/LicenseEdition;CodeLocalVariableTableLineNumberTable
```

```
SourceFile
```

```
%\*+,
```

```
*,& !"#$/*&'(</pre></div>
```

Open Source License for the overlibmws Package

1. License coverage

Note that this license only covers the script library (javascript core and plugin modules) and not any supporting material such as the overlibmws website or its online documentation and support files. You may not reproduce the website or its online material without explicit written permission from the author, but can freely incorporate scripts and procedures which are demonstrated in that material into your own HTML or XML documents.

2. License (Artistic)

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the Copyright Holder, but only to the computing community at large as a market that must bear the fee.)

"Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.

You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.

You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:

- place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as ftp.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.

- use the modified Package only within your corporation or organization.

- rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.

- make other distribution arrangements with the Copyright Holder.

You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:

- distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.

- accompany the distribution with the machine-readable source of the Package with your modifications.

- accompany any non-standard executables with their corresponding Standard Version executables, giving the non-standard executables non-standard names, and clearly documenting the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.

- make other distribution arrangements with the Copyright Holder.

You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution provided that you do not advertise this Package as a product of your own.

The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whomever generated them, and may be sold commercially, and may be aggregated with this Package.

C or perl subroutines supplied by you and linked into this Package shall not be considered part of this Package.

The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

0:clover/com/atlassian/extras/core/crowd/DefaultCrowdLicense6clover/com/atlassian/extras/core/DefaultProductLicense2clover/com/atlassian/extras/api/crowd/CrowdLicenseDefaultCrowdLicense.java<init>g(Lclover/com/atlassian/extras/api/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V

this<Lclover/com/atlassian/extras/core/crowd/DefaultCrowdLicense;product)Lclover/com/atlassian/extras/api/Product;

properties;Lclover/com/atlassian/extras/common/util/LicenseProperties;CodeLocalVariableTableLineNumberTableSourceFile I*+;

03clover/com/atlassian/license/decoder/LicenseAdaptorjava/lang/Object\$clover/com/atlassian/license/LicenseLicenseAdaptor.java_1_YEARJ\licenseType*Lclover/com/atlassian/license/LicenseType;creationDateLjava/util/Date;purchaseDate

expiryDatemaintenanceExpiryDate

evaluationZsupportEntitlementNumberLjava/lang/String;permittedClusterNodesIorganisationpartnermaximumNumberOfUsers<init>h(Lclover/com/atlassian/extras/common/util/LicenseProperties;Lclover/com/atlassian/license/LicenseType;)V()V

!CreationDate#9clover/com/atlassian/extras/common/util/LicenseProperties% getProperty&(Ljava/lang/String;)Ljava/lang/String;(&)-clover/com/atlassian/extras/common/DateEditor+getDate\$(Ljava/lang/String;)Ljava/util/Date;-

./ 1LicenseExpiryDate3 5

Evaluation7java/lang/Boolean9valueOf(Ljava/lang/String;)Ljava/lang/Boolean;;<

:=booleanValue(Z)?@

:A CPurchaseDateE GMaintenanceExpiryDateI KSENM

ONumberOfClusterNodesQgetInt(Ljava/lang/String;I)IST&U WOrganisationY [PartnerName] _

NumberOfUsersa

cthis5Lclover/com/atlassian/license/decoder/LicenseAdaptor;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;maxUsersgetDateCreated()Ljava/util/Date;java/util/DategetTime()Jno

mp(J)Vr

msupdatedCreationDategetDatePurchased

getExpiryDate(clover/com/atlassian/license/LicenseTypexexpiresz@y{ getLicenseDurationgetLicenseId(Ljava/lang/String;getLicenseType,())Lclover/com/atlassian/license/LicenseType;getOrganisationgetPartnerNamegetPermittedClusteredNodes()IgetUsersrequiresUserLimit@y isExpiredjava/lang/SystemcurrentTimeMilliso

isLicenseLevel(Ljava/util/Collection;)Z

getDescriptionyjava/lang/StringtoLowerCase

java/util/Collectioniterator()Ljava/util/Iterator;java/util/IteratorhasNext@next()Ljava/lang/Object;indexOf(Ljava/lang/String;)I

levelLjava/util/Iterator;levelsLjava/util/Collection;descriptiongetSupportEntitlementNumber

ConstantValueCodeLocalVariableTableLineNumberTable

SourceFile!

* *,*+*\$*02*+4*06*+8*>BD*+F*0H*+J*0L*+N*P*+RVX*+Z**+^`+bV>* 'd*efgh

i: !"#9#H\$W%c&p|()*+jkx. *LmY*Lq

etLmY*2qtL+ u.ef,u026,8vk/*Hef=wkF*"

*D

*6efB }o, efG~/*PefL/*"efQ/*\efV/*`ef[//*Xef`E**defegk@E*6*6qefq<*M+N- -;,4(&<ef<

/v

wy(z5|7~:/*Pef

0

4clover/com/atlassian/extras/api/clover/CloverLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicense

```

seCloverLicense.java
SourceFile
0(clover/com/atlassian/license/LicenseTypejava/lang/ObjectLicenseType.javaequals(Ljava/lang/Object;)ZhashCode
()IgetTypetoString()Ljava/lang/String;getDescriptiongetNiceNameisEvaluationLicenseType()ZrequiresUserLimitex
piresgetNewLicenseTypeName
getEdition2()Lclover/com/atlassian/extras/api/LicenseEdition;
SourceFile

0_8clover/com/atlassian/extras/core/DefaultAtlassianLicensejava/lang/Object0clover/com/atlassian/extras/api/Atlass
ianLicenseDefaultAtlassianLicense.javaproductLicenseMapLjava/util/Map;jLjava/util/Map<Lclover/com/atlassian/e
xtras/api/Product;Lclover/com/atlassian/extras/api/ProductLicense;>;<init>(Ljava/util/Collection;)V()V
java/util/HashMapjava/util/Collectionsize()I(I)V
iterator()Ljava/util/Iterator;java/util/Iterator!hasNext()Z#"$%next()Ljava/lang/Object;'(").clover/com/atlassian/extra
s/api/ProductLicense+
getProduct+()Lclover/com/atlassian/extras/api/Product;-. /
java/util/MapIput8(Ljava/lang/Object;Ljava/lang/Object;)Ljava/lang/Object;3425license0Lclover/com/atlassian/extr
as/api/ProductLicense;i$Ljava/util/Iterator;this:Lclover/com/atlassian/extras/core/DefaultAtlassianLicense;productL
licensesHLjava/util/Collection<Lclover/com/atlassian/extras/api/ProductLicense;>;Ljava/util/Collection;getProducLi
censes()Ljava/util/Collection;getProductLicensesBA
CvaluesEA2Fjava/util/CollectionsHunmodifiableCollection.(Ljava/util/Collection;)Ljava/util/Collection;JK
ILgetProductLicense[(Lclover/com/atlassian/extras/api/Product;)Lclover/com/atlassian/extras/api/ProductLicense;ge
t&(Ljava/lang/Object;)Ljava/lang/Object;PQ2Rproduct)Lclover/com/atlassian/extras/api/Product;
SignatureCodeLocalVariableTableLocalVariableTypeTableLineNumberTableK(Ljava/util/Collection<Lclover/com/
atlassian/extras/api/ProductLicense;>;)V
DeprecatedJ(Ljava/util/Collection<Lclover/com/atlassian/extras/api/ProductLicense;>;
SourceFile V
WD**Y++ M,&!,*N*-0-6WX*/78'9:D;<D=?YD=>Z/CV[@AW/*DX;<Z"\V]BAW7
*GMX
;<Z+V]NOWB*+S,X;<TUZO^
0yUclover/com/atlassian/license/applications/sharepoint/SharePointPluginLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStore%SharePointPluginLicenseTypeStore.javaSP_PLUGIN_APPNAME
Ljava/lang/String;SharePoint
PluginAPPLICATION_NAMESHAREPOINT_ACADEMIC*Lclover/com/atlassian/license/LicenseType;SHAREP
OINT_EVALUATIONSHAREPOINT_DEMONSTRATIONSHAREPOINT_NON_PROFITSHAREPOINT_COM
MUNITYSHAREPOINT_DEVELOPERSHAREPOINT_OPEN_SOURCESHAREPOINT_FULL_LICENSEpublic
KeyFileNameprivateKeyFileName<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayList add(Ljava/lang/Object;)Z"#
!$
& (* , . 0
2thisWLclover/com/atlassian/license/applications/sharepoint/SharePointPluginLicenseTypeStore;getAllLicenses(Lj
ava/util/Collection;getPublicKeyFileName()Ljava/lang/String; :getPrivateKeyFileName
=<clinit>/clover/com/atlassian/license/DefaultLicenseType@SharePoint:
AcademicB+clover/com/atlassian/extras/api/LicenseTypeDACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;FG EHnameJ9
EK*(ILjava/lang/String;ZZLjava/lang/String;)VM
ANSharePoint: EvaluationP
COMMERCIALRG ESSharePoint: DemonstrationU
DEMONSTRATIONWG EX$SharePoint: Non-Profit / Open SourceZ

```

NON_PROFIT\G E]SharePoint: Community_ COMMUNITYaG EbSharePoint: Developerd DEVELOPERfG
EgSharePoint: Open SourceiOPEN_SOURCEkG ElSharePoint: Commercialn-
clover/com/atlassian/confluence/page/Page.keyconfluence/confluence.byter
ConstantValueCodeLocalVariableTableLineNumberTable
SourceFile!t

t

u]**%W*%W*)%W*+%W*-%W*/%W*1%W*3%Wv]45w*
%')(%*0+;,F-Q.\67u/*v45w389u.;v45w8<9u.>v45w=?uAYCILOAYQTLO'AY(VYLO/AY2[^LO)AY<'cLO-
AYFehLO1AYPjmLO3AYZoTLO+q;s>w*
.E\s!"x
.! "clover/org/jfree/ui/about/Licencesjava/lang/Object
Licences.javaGPLLjava/lang/String;DGNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 675 Mass Ave, Cambridge, MA 02139, USA. Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on

the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.

This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License.

Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

LGPLeSGNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the

rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- * a) The modified work must itself be a software library.
- * b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- * c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- * d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square

roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- * a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- * b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- * c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- * d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- * e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with

other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- * a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- * b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus

excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and

a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

```
singleton$Lclover/org/jfree/ui/about/Licences;<init>()V
```

```
thisgetInstance&()Lclover/org/jfree/ui/about/Licences;
```

```
getGPL()Ljava/lang/String;getLGPL
```

```
ConstantValueCodeLocalVariableTableLineNumberTable
```

```
SourceFile!
```

```
/*@ 4
```

```
Y$%'- 1-;
```

```
0Eclover/com/atlassian/extras/core/DefaultProductLicense$DefaultPartnerjava/lang/Object'clover/com/atlassian/extr
```

```
as/api/PartnerDefaultProductLicense.java6clover/com/atlassian/extras/core/DefaultProductLicenseDefaultPartnera
```

```
meLjava/lang/String;<init>(Ljava/lang/String;)V()V
```

```
thisGLclover/com/atlassian/extras/core/DefaultProductLicense$DefaultPartner;getName()Ljava/lang/String;CodeLo
```

```
calVariableTableLineNumberTable
```

```
SourceFileInnerClasses0
```

```
F
```

```
**+
```

```
/*
```

0

8clover/com/atlassian/extras/api/crucible/CrucibleLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicenseCrucibleLicense.java

SourceFile

0IEclover/com/atlassian/license/applications/crowd/CrowdLicenseTypeStore-

clover/com/atlassian/license/LicenseTypeStoreCrowdLicenseTypeStore.javaCROWD_ACADEMIC*Lclover/com/atlassian/license/LicenseType;CROWD_COMMERCIALCROWD_COMMUNITYCROWD_EVALUATIONCROWD_OPEN_SOURCECROWD_DEVELOPERCROWD_DEMONSTRATIONpublicKeyFileNameLjava/lang/String;privateKeyFileName<init>()V

applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z

! #

% ')

+thisGLclover/com/atlassian/license/applications/crowd/CrowdLicenseTypeStore;getAllLicenses()Ljava/util/Collection;getPublicKeyFileName()Ljava/lang/String; 3getPrivateKeyFileName

6<clinit>/clover/com/atlassian/license/DefaultLicenseType9Crowd:

Academic;+clover/com/atlassian/extras/api/LicenseType=ACADEMIC-

Lclover/com/atlassian/extras/api/LicenseType;?@ >AnameC2

>D*(ILjava/lang/String;ZZLjava/lang/String;)VF

:GCrowd: CommercialI

COMMERCIALK@ >LCrowd: CommunityN COMMUNITYP@ >QCrowd: EvaluationSCrowd: Open

SourceUOPEN_SOURCEW@ >XCrowd: DeveloperZ DEVELOPER\@ >]Crowd: Demonstration_

DEMONSTRATIONa@

>b#clover/com/atlassian/crowd/leaf.keydcrowd/crowd.bytefCodeLocalVariableTableLineNumberTable

SourceFile!

hR** W*" W*\$ W*& W*(W** W*, WiR-.j& %0; F!Q"/0h/*i-.j&12h.4i-.j+52h.7i-.j08h:YY<BEH:YaJMEH":YiOREH\$:YqTMEH&:YyVYEH(:Y[^EH*:Y`cEH,e4g7j&.E\sk

l

'U

VW &X &Y &Z

V[

&\ &]

^

`

Vab

Vc

d`

Ve

Vf

dghihjk

Ulm

n

o

pqhrs

Ut

uvw

xy

```

z}| classNameLjava/lang/String;nameactionStringactionsLjava/util/Set;
Signature#Ljava/util/Set<Ljava/lang/String;>;<init>()VCodeLineNumberTableLocalVariableTablethis
PermissionInnerClasses3Lorg/apache/tools/ant/types/Permissions$Permission;setClass(Ljava/lang/String;)VaClassg
etClassName(Ljava/lang/String;setNameaNamegetName
setActions
getActionsmatches(Ljava/security/Permission;)ZassizeIpermLjava/security/Permission;LocalVariableTypeTablepar
seActions#(Ljava/lang/String;)Ljava/util/Set;itemresulttkLjava/util/StringTokenizer;7(Ljava/lang/String;)Ljava/util/
Set<Ljava/lang/String;>;toString
SourceFilePermissions.java01~=(*)+)KL,-
@=*B=Fjava/util/HashSetjava/util/StringTokenizer,0=java/lang/StringBuilderPermission: ("",
"")R=1org/apache/tools/ant/types/Permissions$Permissionjava/lang/Objectjava/lang/Stringtrimlength()IgetClass(Lj
ava/lang/Class;java/lang/Classequals(Ljava/lang/Object;)ZendsWith(Ljava/lang/String;)Zjava/security/Permission
substring(II)Ljava/lang/String;
startsWith
java/util/Set removeAll(Ljava/util/Collection;)Z'(Ljava/lang/String;Ljava/lang/String;)V
hasMoreTokens(Z nextTokenaddappend-(Ljava/lang/String;)Ljava/lang/StringBuilder;-
(Ljava/lang/Object;)Ljava/lang/StringBuilder;&org/apache/tools/ant/types/Permissions!&'(*)+),-./
012/*34589:2A *+3
4 58 ;)<=2/*3458>:2A *+3
4 58 ?)@=2/*3458A:2V*++**+3 "458,)B=2/*3)458CD2*+
*<*
+**d*+***+M,>,*W,3>1245&6A7C:Q;S?Z@cAjBuCEH4*cE-jFG58HIJcE/KL2;YMY+N-";,W,3"PQRS#T-
U6W9X44#M);58;,)3N-(OPJ3N/.QR=2^4Y * ! * " *#$ % 3a4458ST7
&{6

```

Indiana University Extreme! Lab Software License

Version 1.1.1

Copyright (c) 2002 Extreme! Lab, Indiana University. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:

"This product includes software developed by the Indiana University Extreme! Lab (<http://www.extreme.indiana.edu/>)."

Alternately, this acknowledgment may appear in the software itself,

if and wherever such third-party acknowledgments normally appear.

4. The names "Indiana Univeristy" and "Indiana Univeristy Extreme! Lab" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <http://www.extreme.indiana.edu/>.

5. Products derived from this software may not use "Indiana Univeristy" name nor may "Indiana Univeristy" appear in their name, without prior written permission of the Indiana University.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHORS, COPYRIGHT HOLDERS OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

```
0Iclover/com/atlassian/license/applications/fisheye/FishEyeLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreFishEyeLicenseTypeStore.javaFISHEYE_ACADEMIC*Lclover/co
m/atlassian/license/LicenseType;FISHEYE_COMMERCIALFISHEYE_COMMUNITYFISHEYE_EVALUATION
FISHEYE_OPEN_SOURCEFISHEYE_DEVELOPERFISHEYE_STARTERFISHEYE_DEMONSTRATIONFISH
EYE_TESTINGpublicKeyFileNameLjava/lang/String;privateKeyFileName<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z
! # %
' ) +
- /
1thisKLclover/com/atlassian/license/applications/fisheye/FishEyeLicenseTypeStore;getAllLicenses()Ljava/util/Coll
ection;getPublicKeyFileName()Ljava/lang/String; 9getPrivateKeyFileName
<<clinit>/clover/com/atlassian/license/DefaultLicenseType?FishEye:
AcademicA+clover/com/atlassian/extras/api/LicenseTypeCACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;EFDGnameI8
DJ*(ILjava/lang/String;ZZLjava/lang/String;)VL
@MFishEye: CommercialO
COMMERCIALQF DRFishEye: CommunityT COMMUNITYVF DWFishEye: EvaluationYFishEye: Open
Source[OPEN_SOURCE]F D^FishEye: Developer` DEVELOPERbF DcFishEye: StartereSTARTERgF DhFishEye:
Demonstrationj
DEMONSTRATIONIF DmFishEye: TestingoTESTINGqF Dr+(ILjava/lang/String;ZZZLjava/lang/String;)Vt
@u%clover/com/atlassian/fisheye/leaf.keywfisheye/fisheye.byteCodeLocalVariableTableLineNumberTable
SourceFile!
```

```
{h**"W*$"W*&"W*("W**"W*,"W*."W*0"W*2"W|h34}.%0
;!F"Q#{$g%56{ /*|34} }78{.:|34}.;8{.=|34}3>{@YBHK@YPSKN$@YUXKN&@YZSKN(@Y\_KN*@YadKN,
@YfiKN.@YknKN0@YpsKv2x:z=}
```

.E\s~

This copy of JNA is licensed under the Lesser General Public License (LGPL), version 2.1 ("the License"). See the License for details about distribution rights, and the specific rights regarding derivate works.

You may obtain a copy of the License at:

<http://www.gnu.org/licenses/licenses.html>

A copy is also included in the downloadable source code package containing JNA, in file "LGPL2.1", under the same directory as this file.

=====
=====
Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from 'org.jfree' to 'clover.org.jfree'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====
=====
GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better

strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of

this Lesser General Public License (also called "this License").

Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify

that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above

specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by

modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries,

so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

04clover/com/atlassian/extras/api/bamboo/BambooLicensejava/lang/Object.clover/com/atlassian/extras/api/Product
License3clover/com/atlassian/extras/api/LicenseEditionAwareBambooLicense.javagetMaximumNumberOfRemote

Agents()IgetMaximumNumberOfLocalAgentsgetMaximumNumberOfPlansisUnlimitedRemoteAgents()ZisUnlimitedLocalAgentsisUnlimitedPlans
SourceFile

```
/*
 *           Apache License
 *           Version 2.0, January 2004
 *           http://www.apache.org/licenses/
 *
 * TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION
 *
 * 1. Definitions.
 *
 * "License" shall mean the terms and conditions for use, reproduction,
 * and distribution as defined by Sections 1 through 9 of this document.
 *
 * "Licensor" shall mean the copyright owner or entity authorized by
 * the copyright owner that is granting the License.
 *
 * "Legal Entity" shall mean the union of the acting entity and all
 * other entities that control, are controlled by, or are under common
 * control with that entity. For the purposes of this definition,
 * "control" means (i) the power, direct or indirect, to cause the
 * direction or management of such entity, whether by contract or
 * otherwise, or (ii) ownership of fifty percent (50%) or more of the
 * outstanding shares, or (iii) beneficial ownership of such entity.
 *
 * "You" (or "Your") shall mean an individual or Legal Entity
 * exercising permissions granted by this License.
 *
 * "Source" form shall mean the preferred form for making modifications,
 * including but not limited to software source code, documentation
 * source, and configuration files.
 *
 * "Object" form shall mean any form resulting from mechanical
 * transformation or translation of a Source form, including but
 * not limited to compiled object code, generated documentation,
 * and conversions to other media types.
 *
 * "Work" shall mean the work of authorship, whether in Source or
 * Object form, made available under the License, as indicated by a
 * copyright notice that is included in or attached to the work
 * (an example is provided in the Appendix below).
 *
 * "Derivative Works" shall mean any work, whether in Source or Object
 * form, that is based on (or derived from) the Work and for which the
 * editorial revisions, annotations, elaborations, or other modifications
```

* represent, as a whole, an original work of authorship. For the purposes
* of this License, Derivative Works shall not include works that remain
* separable from, or merely link (or bind by name) to the interfaces of,
* the Work and Derivative Works thereof.

* "Contribution" shall mean any work of authorship, including
* the original version of the Work and any modifications or additions
* to that Work or Derivative Works thereof, that is intentionally
* submitted to Licensor for inclusion in the Work by the copyright owner
* or by an individual or Legal Entity authorized to submit on behalf of
* the copyright owner. For the purposes of this definition, "submitted"
* means any form of electronic, verbal, or written communication sent
* to the Licensor or its representatives, including but not limited to
* communication on electronic mailing lists, source code control systems,
* and issue tracking systems that are managed by, or on behalf of, the
* Licensor for the purpose of discussing and improving the Work, but
* excluding communication that is conspicuously marked or otherwise
* designated in writing by the copyright owner as "Not a Contribution."

* "Contributor" shall mean Licensor and any individual or Legal Entity
* on behalf of whom a Contribution has been received by Licensor and
* subsequently incorporated within the Work.

* 2. Grant of Copyright License. Subject to the terms and conditions of
* this License, each Contributor hereby grants to You a perpetual,
* worldwide, non-exclusive, no-charge, royalty-free, irrevocable
* copyright license to reproduce, prepare Derivative Works of,
* publicly display, publicly perform, sublicense, and distribute the
* Work and such Derivative Works in Source or Object form.

* 3. Grant of Patent License. Subject to the terms and conditions of
* this License, each Contributor hereby grants to You a perpetual,
* worldwide, non-exclusive, no-charge, royalty-free, irrevocable
* (except as stated in this section) patent license to make, have made,
* use, offer to sell, sell, import, and otherwise transfer the Work,
* where such license applies only to those patent claims licensable
* by such Contributor that are necessarily infringed by their
* Contribution(s) alone or by combination of their Contribution(s)
* with the Work to which such Contribution(s) was submitted. If You
* institute patent litigation against any entity (including a
* cross-claim or counterclaim in a lawsuit) alleging that the Work
* or a Contribution incorporated within the Work constitutes direct
* or contributory patent infringement, then any patent licenses
* granted to You under this License for that Work shall terminate
* as of the date such litigation is filed.

* 4. Redistribution. You may reproduce and distribute copies of the
* Work or Derivative Works thereof in any medium, with or without

- * modifications, and in Source or Object form, provided that You
- * meet the following conditions:
- *
- * (a) You must give any other recipients of the Work or
- * Derivative Works a copy of this License; and
- *
- * (b) You must cause any modified files to carry prominent notices
- * stating that You changed the files; and
- *
- * (c) You must retain, in the Source form of any Derivative Works
- * that You distribute, all copyright, patent, trademark, and
- * attribution notices from the Source form of the Work,
- * excluding those notices that do not pertain to any part of
- * the Derivative Works; and
- *
- * (d) If the Work includes a "NOTICE" text file as part of its
- * distribution, then any Derivative Works that You distribute must
- * include a readable copy of the attribution notices contained
- * within such NOTICE file, excluding those notices that do not
- * pertain to any part of the Derivative Works, in at least one
- * of the following places: within a NOTICE text file distributed
- * as part of the Derivative Works; within the Source form or
- * documentation, if provided along with the Derivative Works; or,
- * within a display generated by the Derivative Works, if and
- * wherever such third-party notices normally appear. The contents
- * of the NOTICE file are for informational purposes only and
- * do not modify the License. You may add Your own attribution
- * notices within Derivative Works that You distribute, alongside
- * or as an addendum to the NOTICE text from the Work, provided
- * that such additional attribution notices cannot be construed
- * as modifying the License.
- *
- * You may add Your own copyright statement to Your modifications and
- * may provide additional or different license terms and conditions
- * for use, reproduction, or distribution of Your modifications, or
- * for any such Derivative Works as a whole, provided Your use,
- * reproduction, and distribution of the Work otherwise complies with
- * the conditions stated in this License.
- *
- * 5. Submission of Contributions. Unless You explicitly state otherwise,
- * any Contribution intentionally submitted for inclusion in the Work
- * by You to the Licensor shall be under the terms and conditions of
- * this License, without any additional terms or conditions.
- * Notwithstanding the above, nothing herein shall supersede or modify
- * the terms of any separate license agreement you may have executed
- * with Licensor regarding such Contributions.
- *
- * 6. Trademarks. This License does not grant permission to use the trade

* names, trademarks, service marks, or product names of the Licensor,
* except as required for reasonable and customary use in describing the
* origin of the Work and reproducing the content of the NOTICE file.

* 7. Disclaimer of Warranty. Unless required by applicable law or
* agreed to in writing, Licensor provides the Work (and each
* Contributor provides its Contributions) on an "AS IS" BASIS,
* WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or
* implied, including, without limitation, any warranties or conditions
* of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A
* PARTICULAR PURPOSE. You are solely responsible for determining the
* appropriateness of using or redistributing the Work and assume any
* risks associated with Your exercise of permissions under this License.

* 8. Limitation of Liability. In no event and under no legal theory,
* whether in tort (including negligence), contract, or otherwise,
* unless required by applicable law (such as deliberate and grossly
* negligent acts) or agreed to in writing, shall any Contributor be
* liable to You for damages, including any direct, indirect, special,
* incidental, or consequential damages of any character arising as a
* result of this License or out of the use or inability to use the
* Work (including but not limited to damages for loss of goodwill,
* work stoppage, computer failure or malfunction, or any and all
* other commercial damages or losses), even if such Contributor
* has been advised of the possibility of such damages.

* 9. Accepting Warranty or Additional Liability. While redistributing
* the Work or Derivative Works thereof, You may choose to offer,
* and charge a fee for, acceptance of support, warranty, indemnity,
* or other liability obligations and/or rights consistent with this
* License. However, in accepting such obligations, You may act only
* on Your own behalf and on Your sole responsibility, not on behalf
* of any other Contributor, and only if You agree to indemnify,
* defend, and hold each Contributor harmless for any liability
* incurred by, or claims asserted against, such Contributor by reason
* of your accepting any such warranty or additional liability.

* END OF TERMS AND CONDITIONS

* APPENDIX: How to apply the Apache License to your work.

* To apply the Apache License to your work, attach the following
* boilerplate notice, with the fields enclosed by brackets "[]"
* replaced with your own identifying information. (Don't include
* the brackets!) The text should be enclosed in the appropriate
* comment syntax for the file format. We also recommend that a
* file or class name and description of purpose be included on the
* same "printed page" as the copyright notice for easier

* identification within third-party archives.
*
* Copyright [yyyy] [name of copyright owner]
*
* Licensed under the Apache License, Version 2.0 (the "License");
* you may not use this file except in compliance with the License.
* You may obtain a copy of the License at
*
* <http://www.apache.org/licenses/LICENSE-2.0>
*
* Unless required by applicable law or agreed to in writing, software
* distributed under the License is distributed on an "AS IS" BASIS,
* WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
* See the License for the specific language governing permissions and
* limitations under the License.
*/

W3C SOFTWARE NOTICE AND LICENSE

<http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231>

This work (and included software, documentation such as READMEs, or other related items) is being provided by the copyright holders under the following license. By obtaining, using and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions.

Permission to copy, modify, and distribute this software and its documentation, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the software and documentation or portions thereof, including modifications:

1. The full text of this NOTICE in a location viewable to users of the redistributed or derivative work.
2. Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, the W3C Software Short Notice should be included (hypertext is preferred, text is permitted) within the body of any redistributed or derivative code.
3. Notice of any changes or modifications to the files, including the date changes were made. (We recommend you provide URIs to the location from which the code is derived.)

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR

CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the software without specific, written prior permission. Title to copyright in this software and any associated documentation will at all times remain with copyright holders.

This formulation of W3C's notice and license became active on December 31 2002. This version removes the copyright ownership notice such that this license can be used with materials other than those owned by the W3C, reflects that ERCIM is now a host of the W3C, includes references to this specific dated version of the license, and removes the ambiguous grant of "use". Otherwise, this version is the same as the previous version and is written so as to preserve the Free Software Foundation's assessment of GPL compatibility and OSI's certification under the Open Source Definition. Please see our Copyright FAQ for common questions about using materials from our site, including specific terms and conditions for packages like libwww, Amaya, and Jigsaw. Other questions about this notice can be directed to site-policy@w3.org.

Joseph Reagle <site-policy@w3.org>

This license came from: <http://www.megginson.com/SAX/copying.html>
However please note future versions of SAX may be covered
under <http://saxproject.org/?selected=pd>

SAX2 is Free!

I hereby abandon any property rights to SAX 2.0 (the Simple API for XML), and release all of the SAX 2.0 source code, compiled code, and documentation contained in this distribution into the Public Domain. SAX comes with NO WARRANTY or guarantee of fitness for any purpose.

David Megginson, david@megginson.com
2000-05-05

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise

designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must

include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly

negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

0)clover/com/atlassian/license/LicenseUtils.java|lang/ObjectLicenseUtils.java|clover/com/atlassian/extras/common/|og/Logger\$Log-

```

clover/com/atlassian/extras/common/log/LoggerLoglog3Lclover/com/atlassian/extras/common/log/Logger$Log;PO
ST_LICENSE_EVAL_PERIODJ~UPDATE_ALLOWED_PERIOD\ALMOST_EXPIRED_PERIODKPARTNER_
NOT_MATCHING_BUILDLjava/lang/String;'partner not matching build partner
nameLICENSE_NO_PARTNER'License does not contain a partner
name/class$clover$com$atlassian$license$LicenseUtilsLjava/lang/Class;<init>()V !
"this+Lclover/com/atlassian/license/LicenseUtils; getString([B)Ljava/lang/String;rndChar(I)C()
*getCharInRange,)
- /java/lang/StringBuffer1
2"Invalid Char in stream 4append,(Ljava/lang/String;)Ljava/lang/StringBuffer;67
28(I)Ljava/lang/StringBuffer;6:
2;toString()Ljava/lang/String;=>
2?debug(Ljava/lang/Object;)VABCjava/lang/StringE([C)V G
FHByteBiI byteArray[BcharByte[Cstrjava/lang/Math$Random()DUV
TW@@@cuZInvalid int in stream `c1getBytes(Ljava/lang/String;)[BtoCharArray()[Cmn
Fojava/lang/CharacterqtoLowerCase(C)Cst
rucd
w!Invalid character in byte stream ystring
charArraybytesgetSupportPeriodEnd)(Lclover/com/atlassian/license/License;)J$clover/com/atlassian/license/Licens
egetDateCreated()Ljava/util/Date;java/util/DategetTime()J
license&Lclover/com/atlassian/license/License;isLicenseTooOldForBuild9(Lclover/com/atlassian/license/License;L
java/util/Date;)Z~
buildDateLjava/util/Date;confirmExtendLicenseExpired(Ljava/util/Date;)Z
"#getNewBuildWithOldLicenseExpiryDate(Ljava/util/Date;)J

dateConfirmed(Ljava/lang/String;)Zjava/lang/NumberFormatExceptionjava/lang/Long
parseLong(Ljava/lang/String;)J
(J)V

!getSupportPeriodAlmostExpiredDateisPartnerDetailsValid(Lclover/com/atlassian/license/License;Ljava/lang/Stri
ng;)Ljava/lang/String;getPartnerName>equals(Ljava/lang/Object;)Z
FbuildPartnerNamelicensePartnerName.ReadKey(Ljava/io/InputStream;)[Bjava/io/IOExceptionjava/io/ByteArrayOut
putStream
"java/io/InputStreamread([B)I
write([B)I)V
toByteArray()[B
isLjava/io/InputStream;boutLjava/io/ByteArrayOutputStream;len<clinit> getClass()Ljava/lang/Class;
java/lang/ClassGetComponentType
getInstanceF(Ljava/lang/Class;)Lclover/com/atlassian/extras/common/log/Logger$Log;

ConstantValue SyntheticCodeLocalVariableTableLineNumberTable
Exceptions
SourceFileInnerClasses!

!3*#$$%
&'a*hL=**3>!++U+*`.U++U+*` @`.Ua@++U+*`.UB@!++U+*` @d.U02Y359<@DPFY+IM,4JK
LMNOPQRN#$$&*)&*7,A.H/X1c3j4w689=$@A

```

()u/hXYk`<X[k=aA` /LM!]M ^_FG H
.j 0`

dA`\$=\$da`><?>02Y3a9<@DjbM2PRTV&X2Z;\A^D`JbMehf
cdk09 0dAZAd
`azad\$`<>?02Y3f9i@Dkjb2nprt'v3x<zB|E~KNi
kl**pL+IM>, +4vg,+, `4xdTv+4vm,+, `4x@dTX+4vs,+, `4xT>+4vy,+, `4x@`T 02Y3z9+4i@De,*LM{|Q}O:3>Q\kv
~8*a F*+ BY* 9Y*
3 *a 9Y* 3 *e ?*M,,,+,++ ??89< *YL=N*-Y=
+-+**"
M}O
%!5YWY0

```
0QWclover/com/atlassian/license/applications/editliveplugin/EditlivePluginLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStore#EditlivePluginLicenseTypeStore.javaEDITLIVE_ACADEMIC*Lcl
over/com/atlassian/license/LicenseType;EDITLIVE_EVALUATIONEDITLIVE_NON_PROFITEDITLIVE_FULL
_LICENSEpublicKeyFileNameLjava/lang/String;,,clover/com/atlassian/editlive/publickey.byte
privateKeyFileNameeditlive/editlive.byte<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z
" $
&thisYLClover/com/atlassian/license/applications/editliveplugin/EditlivePluginLicenseTypeStore;getAlIILicenses()L
java/util/Collection;getPublicKeyFileName()Ljava/lang/String;getPrivateKeyFileName<clinit>/clover/com/atlassian
/license/DefaultLicenseType0EditLive!: Academic2+clover/com/atlassian/extras/api/LicenseType4ACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;67 58name:-
5;*(ILjava/lang/String;ZZLjava/lang/String;)V=
1>EditLive!: Evaluation@
COMMERCIALB7 5C#EditLive!: Non-Profit / Open SourceE
NON_PROFITG7 5HEditLive!: CommercialJ
ConstantValueCodeLocalVariableTableLineNumberTable
SourceFile!
LLMo1**!W*#!W*%!W*!WN1()O%0*+M/*N()O,-M-N()O$.-M-
N()O)/M]1Y39<?1YAD<?#1YFI<?%1YKD<?'O
.EP
```

=====
=====

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from 'it.unimi.dsi.fastutil' to 'clover.it.unimi.dsi.fastutil'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====
=====

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in

non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does

and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based

on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and

therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the

user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any

particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU

Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

```
0(clover/com/atlassian/license/LicensePairjava/lang/ObjectLicensePair.javaNEW_LICENSE_PREFIX[Blicensehash  
originalLicenseStringLjava/lang/String;isNGZ<init>([B[B]V-clover/com/atlassian/license/LicenseException()V
```

```
startsWith([B[B]Z
```

```
=clover/com/atlassian/extras/decoder/v2/Version2LicenseDecoder!packLicense([B[B]Ljava/lang/String;#  
"%
```

```
packV1License$
```

```
(
```

```
*this*Lclover/com/atlassian/license/LicensePair;([B[BLjava/lang/String;)VtextoriginalStringItargetprefix'(Ljava/la  
ng/String;Ljava/lang/String;)Vjava/lang/Exception6 License string or hash are null.8(Ljava/lang/String;)V:
```

```
;clover/com/atlassian/license/LicenseUtils=getBytes(Ljava/lang/String;)[B?@
```

```
>Ajava/lang/StringBufferC
```

```
DException generating license: Fappend,(Ljava/lang/String;)Ljava/lang/StringBuffer;HI
```

```
DJ,(Ljava/lang/Object;)Ljava/lang/StringBuffer;HL
```

```
DMtoString()Ljava/lang/String;OP
```

```
DQeLjava/lang/Exception;contactLicense was
```

```
nullUsplitVersion2License>(Ljava/lang/String;)Lclover/com/atlassian/license/LicensePair;WX
```

```
Y=clover/com/atlassian/extras/decoder/v1/Version1LicenseDecoder[splitLicense]X
```

```
\^
```

```
concatLicensepair getString([B]Ljava/lang/String;bc
```

```
>djava/lang/Stringlength()Ihi
```

```
gj substring(II)Ljava/lang/String;lm
```

```
gn
```

```
p(I)Ljava/lang/String;lr
```

```
gssbLjava/lang/StringBuffer;
```

```
hashString
```

```
lineLength
```

```
licenseStrjava/io/IOExceptionz
```

```

" canDecode(Ljava/lang/String;)Z}~
"lastIndexOf(I)I
g()[B?
g-clover/org/apache/commons/codec/binary/Base64decodeBase64([B)[B
java/io/ByteArrayInputStream([B)V
java/io/DataInputStream(Ljava/io/InputStream;)V
readInti
read([B)I
availablei
.
(Ljava/lang/Throwable;)V
licenseContentDecodedBytesInLjava/io/ByteArrayInputStream;dInLjava/io/DataInputStream;
textLengthlicenseTextLjava/io/IOException;encodedLicensepos()Z
getLicensegetLicenseStringgetHash
getHashStringgetOriginalLicenseString<clinit>CodeLocalVariableTableLineNumberTable
Exceptions
SourceFile!

C**+*,*** ** **&****)+ C,-CC "$ %&'B(.#**+*,*** *-+*#,-## #0./ 012"3$,+>,+3,3*12$,-$3$478 9;<9">5z*+,
Y9<*+B*,B*** ** **&****)+NYDYEGK-NR<Z]7*^STz,-zz .FGINO&P5QZV]S^UyW:B*+
YV<*+ZM,+_M*,++*,*,* B,-B`*a-`acfhj!m)n1o9pAq!$8DYEN,e:kl6k#-oKW-qKWt:-KW-qKW+e:k#-oKW-
qKWt:-KW-qKW-RH,- uvw{x2U=yFuwxz!|.}5~AHOU_lsWXH
z"Y|++X=+oN-:Y:Y:6:W: WY +NY-op{pR'I2>=3D,2J&[ q Sz,-zc2>'2=DJR[cpq/* ,/*,-P2*e,-/*,-P2*e,-P/*+,-
OP/*+,-8 Y
TYTYTY
TYT
0!1clover/com/atlassian/license/LicenseConfigurationjava/lang/ObjectLicenseConfiguration.javalicenseRegistry.Lcl
over/com/atlassian/license/LicenseRegistry;licenseTypeStore/Lclover/com/atlassian/license/LicenseTypeStore;<init
>`(Lclover/com/atlassian/license/LicenseRegistry;Lclover/com/atlassian/license/LicenseTypeStore;)V()V

this3Lclover/com/atlassian/license/LicenseConfiguration;getLicenseRegistry0()Lclover/com/atlassian/license/Licen
seRegistry;getLicenseTypeStore1()Lclover/com/atlassian/license/LicenseTypeStore;setLicenseRegistry1(Lclover/co
m/atlassian/license/LicenseRegistry;)VsetLicenseTypeStore2(Lclover/com/atlassian/license/LicenseTypeStore;)VC
odeLocalVariableTableLineNumberTable
SourceFile!
Y**+*, /*/*>*+
!>*+
%&
.%clover/org/jfree/ui/about/Contributorjava/lang/ObjectContributor.javanameLjava/lang/String;email<init>'(Ljava/l
ang/String;Ljava/lang/String;)V()V
this'Lclover/org/jfree/ui/about/Contributor;getName()Ljava/lang/String;getEmailCodeLocalVariableTableLineNum
berTable
SourceFile!
Y*
*+*, DE FG/*O/*X
0+clover/com/atlassian/license/DefaultLicensejava/lang/Object$clover/com/atlassian/license/LicenseDefaultLicense
.javaEVALUATION_PERIODJdateCreatedLjava/util/Date;

```

```

datePurchaseddateExpiredorganisationLjava/lang/String;licenseType*Lclover/com/atlassian/license/LicenseType;us
ersIpartnerName
licenseIdpermittedClusteredNodesdurationsen<init>(Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lclover/com/
atlassian/license/LicenseType;ILjava/lang/String;Ljava/lang/String;)V(Ljava/util/Date;Ljava/util/Date;Ljava/lang/St
ring;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;Ljava/lang/String;ILjava/lang/String;)V
this-
Lclover/com/atlassian/license/DefaultLicense;(Ljava/util/Date;Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lcl
over/com/atlassian/license/LicenseType;ILjava/lang/String;Ljava/lang/String;)V(Ljava/util/Date;Ljava/util/Date;Lja
va/util/Date;Ljava/lang/String;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;Ljava/lang/String;ILja
va/lang/String;)V#
$expiresorganisationName(Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lclover/com/atlassian/license/License
Type;ILjava/lang/String;Ljava/lang/String;)V(
)
+(Ljava/util/Date;Ljava/util/Date;JLjava/lang/String;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;
Ljava/lang/String;ILjava/lang/String;)V .
0r(Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;)
V(Ljava/util/Date;Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lclover/com/atlassian/license/LicenseType;ILja
va/lang/String;)V(Ljava/util/Date;Ljava/util/Date;Ljava/util/Date;Ljava/lang/String;Lclover/com/atlassian/license/Li
censeType;ILjava/lang/String;Ljava/lang/String;)V4
5)V7
8
<> @ B D F H
J(Ljava/util/Date;Ljava/util/Date;JLjava/lang/String;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;
Ljava/lang/String;)VgetDateCreated(Ljava/util/Date;getDatePurchasedgetOrganisation()Ljava/lang/String;getLice
nseType()Lclover/com/atlassian/license/LicenseType;toStringLjava/lang/StringBufferU
V8(clover/com/atlassian/license/LicenseTypeXgetNiceNameZQY[append,(Ljava/lang/String;)Ljava/lang/StringBuff
er;]^
V_
licensed to aTQ
Vc isExpired()Z
getExpiryDategN
hjava/util/DatejgetTime()Jlm
knjava/lang/SystemcurrentTimeMillism
qsexpiryisEvaluationLicenseTypevfYw y(J)V{
k|getPartnerNameisLicenseLevel(Ljava/util/Collection;)Zjava/util/Collectioniterator(Ljava/util/Iterator;java/util/Iter
atorhasNextfnnext()Ljava/lang/Object;java/lang/StringRS
getDescriptionQYtoLowerCaseQ
indexOf(Ljava/lang/String;)I
levelLjava/util/Iterator;levelsLjava/util/Collection;getUsers()IrequiresUserLimitfYgetLicenseIdgetPermittedClustere
dNodesgetLicenseDurationgetSupportEntitlementNumber<clinit>$CodeLocalVariableTableLineNumberTable
SourceFile!

*+,-R !
"
*+,-%\ !
&'

```

\$% *+,-** ,f

!

)*+-

*+,

*!/p !

/01#

*+,

*-1p !

5672{ *+,-*H !

?@3

*+,-6R !

&'

DE(>*9*/;*,*+*=,*?-A*C*E*G*I*K\ > !>

>>>>>>>2HIJKL%M+N1O7P=QL *+,

**!/f

!

UVW4

*+, **-.1f

!

[[]MN/*= !aON/*? !fPQ/*A !kRS/*C !pTQM#VYW*C`b`*A`d# !uef*iL++ot !uz{ |~gNn**iL+ "*CxBY*?oza}L+*
!%u (~Q/*G !8+M,)N*-* /8 !8136E*C*E !Q/*I !/*K !m/*/ !Q/*, !7z

0nQclover/com/atlassian/license/applications/greenhopper/GreenHopperLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStore

GreenHopperLicenseTypeStore.javaNAMELjava/lang/String;GreenHopper!GREENHOPPER_STANDARD_FULL
_LICENSE*Lclover/com/atlassian/license/LicenseType;% GREENHOPPER_PROFESSIONAL_FULL_LICENSE#
GREENHOPPER_ENTERPRISE_FULL_LICENSE!GREENHOPPER_ENTERPRISE_EVALUATIONGREENH
OPPER_ENTERPRISE_ACADEMIC"GREENHOPPER_ENTERPRISE_OPEN_SOURCEGREENHOPPER_ENT
ERPRISE_PERSONAL<init>()V

applicationLicenseTypesLjava/util/ArrayList;

java/util/ArrayListadd(Ljava/lang/Object;)Z

"

\$ & (*

,thisSLclover/com/atlassian/license/applications/greenhopper/GreenHopperLicenseTypeStore;getPublicKeyFileNam
e()Ljava/lang/String;)clover/com/atlassian/greenhopper/leaf.key2getPrivateKeyFileNamegreenhopper/greenhopper.

byte5<clinit>/clover/com/atlassian/license/DefaultLicenseType8'GreenHopper Standard: Commercial

Server:+clover/com/atlassian/extras/api/LicenseType<

COMMERCIAL-Lclover/com/atlassian/extras/api/LicenseType;>? =@nameB1

=C.clover/com/atlassian/extras/api/LicenseEditionESTANDARD0Lclover/com/atlassian/extras/api/LicenseEdition;

GH FIZ(ILjava/lang/String;ZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)VK

9L+GreenHopper Professional: Commercial ServerNPROFESSIONALPH FQ)GreenHopper Enterprise:

Commercial ServerS

ENTERPRISEUH FV"GreenHopper Enterprise: EvaluationX GreenHopper Enterprise: AcademicZACADEMIC\
=]#GreenHopper Enterprise: Open Source_OPEN_SOURCEa? =b GreenHopper Enterprise:
PersonaldPERSONALf? =g
ConstantValueCodeLocalVariableTableLineNumberTable
SourceFile!i

```
jR**!W*#!W*%!W*!W*)!W*+!W*-!WkR./l& %0; F!Q"01j-3k./l&41j-  
6k./l+7j9Yx;ADJM9YyOADRM#9YzTADWM%9Y{YADWM*9Y[^DWM)9Y} `cDWM+9Y~ehDWM-l4Nhm  
0<clover/com/atlassian/extras/core/bamboo/DefaultBambooLicense6clover/com/atlassian/extras/core/DefaultProduc  
tLicense4clover/com/atlassian/extras/api/bamboo/BambooLicenseDefaultBambooLicense.javaMAX_REMOTE_A  
GENTS_NONEIMAX_REMOTE_AGENTS_STANDARDMAX_REMOTE_AGENTS_PROFESSIONAL  
MAX_REMOTE_AGENTS_ENTERPRISEMAX_REMOTE_AGENTS_UNLIMITEDdMAX_LOCAL_AGENTS  
_BASICMAX_LOCAL_AGENTS_UNLIMITEDMAX_PLANS_STARTERMAX_PLANS_UNLIMITEDmaximu  
mNumberOfRemoteAgentsmaximumNumberOfLocalAgentsmaximumNumberOfPlanslicenseEdition0Lclover/com/  
atlassian/extras/api/LicenseEdition;<init>g(Lclover/com/atlassian/extras/api/Product;Lclover/com/atlassian/extras/c  
ommon/util/LicenseProperties;)V  
LicenseEdition!9clover/com/atlassian/extras/common/util/LicenseProperties#getProperty&(Ljava/lang/String;)Ljava  
/lang/String;%&$'@clover/com/atlassian/extras/common/LicenseTypeAndEditionResolver)getLicenseEditionD(Lja  
va/lang/String;)Lclover/com/atlassian/extras/api/LicenseEdition;+  
*- /calculateRemoteAgents>(Lclover/com/atlassian/extras/common/util/LicenseProperties;)I12  
3 5calculateLocalAgents72  
8 :calculatePlans<2  
=  
?this>Lclover/com/atlassian/extras/core/bamboo/DefaultBambooLicense;product)Lclover/com/atlassian/extras/api/P  
roduct;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;2(Lclover/com/atlassian/extr  
as/api/LicenseEdition;getMaximumNumberOfRemoteAgents()IgetMaximumNumberOfLocalAgentsgetMaximumN  
umberOfPlansisUnlimitedRemoteAgents()ZisUnlimitedLocalAgentsisUnlimitedPlansjava/lang/NumberFormatExce  
ptionPNumberOfBambooRemoteAgentsRjava/lang/StringTlengthVI  
UWjava/lang/IntegerYparseInt(Ljava/lang/String;)I\  
Z]+clover/com/atlassian/extras/api/LicenseType_STARTER-Lclover/com/atlassian/extras/api/LicenseType;ab  
`cgetLicenseType/()Lclover/com/atlassian/extras/api/LicenseType;ef  
gequals(Ljava/lang/Object;)Zij  
`k.clover/com/atlassian/extras/api/LicenseEditionmSTANDARDo np  
nkPROFESSIONALS nt  
ENTERPRISEv nw UNLIMITEDy  
nze!Ljava/lang/NumberFormatException;maxRemoteStringLjava/lang/String;NumberOfBambooLocalAgentsBASI  
C nmaxLocalStringNumberOfBambooPlans  
maxPlanString  
ConstantValueCodeLocalVariableTableLineNumberTable  
SourceFile
```

```
1*+, *, "(0**46**9;**,>@  
1AB1CD1EF$%'()0*+G/*0AB.HI/*6AB3JI/*;AB8KI/*@AB=LM8*6ABBNM8*;ABGOM8*@ABL12j+S(M,,X  
,^Nd*hlq*0ru*Or  
x*0r{*0rdQ*}|jABjEF a~>Q RVX^^)b6d8fEhHjUIXnepht72;+(M,,X ,^Nd*hl*0rQ*|}:AB:EF 1& z {')68<2;+(M,,X  
,^Nd*hl  
Q*|},AB,EF # '*
```

/*

* The contents of this file are subject to the Mozilla Public License Version 1.1
* (the "License"); you may not use this file except in compliance with the License.
* You may obtain a copy of the License at <http://www.mozilla.org/MPL/>

*

* Software distributed under the License is distributed on an "AS IS" basis,
* WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
* for the specific language governing rights and limitations under the License.

*

* The Original Code is 'iText, a free JAVA-PDF library'.

*

* The Initial Developer of the Original Code is Bruno Lowagie. Portions created by
* the Initial Developer are Copyright (C) 1999, 2000, 2001, 2002 by Bruno Lowagie.
* All Rights Reserved.

* Co-Developer of the code is Paulo Soares. Portions created by the Co-Developer
* are Copyright (C) 2000, 2001, 2002 by Paulo Soares. All Rights Reserved.

*

* Contributor(s): all the names of the contributors are added in the source code
* where applicable.

*

* Alternatively, the contents of this file may be used under the terms of the
* LGPL license (the "GNU LIBRARY GENERAL PUBLIC LICENSE"), in which case the
* provisions of LGPL are applicable instead of those above. If you wish to
* allow use of your version of this file only under the terms of the LGPL
* License and not to allow others to use your version of this file under
* the MPL, indicate your decision by deleting the provisions above and
* replace them with the notice and other provisions required by the LGPL.
* If you do not delete the provisions above, a recipient may use your version
* of this file under either the MPL or the GNU LIBRARY GENERAL PUBLIC LICENSE.

*

* This library is free software; you can redistribute it and/or modify it
* under the terms of the MPL as stated above or under the terms of the GNU
* Library General Public License as published by the Free Software Foundation;
* either version 2 of the License, or any later version.

*

* This library is distributed in the hope that it will be useful, but WITHOUT
* ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS
* FOR A PARTICULAR PURPOSE. See the GNU Library general Public License for more
* details.

*

* If you didn't download this code from the following link, you should check if
* you aren't using an obsolete version:

* <http://www.lowagie.com/iText/>

*

* This class is generated based on a grammar file provided by SUN, and updated
* by Carsten Hammer. SUN's license agreement can be found at this URL:

* <http://java.sun.com/products/java-media/2D/samples/samples-license.html>

* See also the file sun.txt in directory com.lowagie.text.pdf

```

*/
onoMnApeShTpQtDJbcUgJTIFONPQeUndIgfQWWNNddIwBl
mi2Kp5RjfhJdGCSO<bOTNof2KNxm9KCi5lxEyKI9BJW3p
qOPQUXpopOopMMPqnPnXXQPNOPNRnqQNQqStwVxuQSTtVW
UrwSUSSTVwxWSXNmrrpnmqmUUnpsvpntsmmmmmUUnpsvp
ntsmmmmmUUfmbkWJlroZbW4bsbilmjkbqUUnmmmm
1~
V
W
XYZ[
V\
]
^_
`
a
bcd e f g h ij
V kl
V m nocpqrsnameLjava/lang/String;emailurlorganizationorganizationUrlrolesLjava/util/List;
Signature$Ljava/util/List<Ljava/lang/String;>;timezone
propertiesLjava/util/Properties;<init>()VCodeLineNumberTableLocalVariableTablethis$Lorg/apache/maven/model/
Contributor;addProperty'(Ljava/lang/String;Ljava/lang/String;)VkeyvalueaddRole(Ljava/lang/String;)VstringgetEm
ail()Ljava/lang/String;getNamegetOrganizationgetOrganizationUrl
getProperties(Ljava/util/Properties;getRoles()Ljava/util/List;&()Ljava/util/List<Ljava/lang/String;>;getTimezonege
tUrl
removeRolessetEmailsetNameOrganizationsetOrganizationUrl
setProperties(Ljava/util/Properties;)VsetRoles(Ljava/util/List;)VLocalVariableTypeTable'(Ljava/util/List<Ljava/lan
g/String;>;)VsetTimezonesetUrl
SourceFileContributor.java-
.@Atujava/lang/Stringjava/lang/ClassCastExceptionjava/lang/StringBuilder:Contributor.addRoles(string) parameter
must be instanceof vwx=<y<-9BCz{|"!
!$!% !+,java/util/Properties&'java/util/ArrayList*!#!=Contributor.removeRoles(string) parameter must be instanceof
}!"org/apache/maven/model/Contributorjava/lang/Objectjava/io/Serializableput8(Ljava/lang/Object;Ljava/lang/Obje
ct;)Ljava/lang/Object;append-
(Ljava/lang/String;)Ljava/lang/StringBuilder;java/lang/ClasstoStringjava/util/Listadd(Ljava/lang/Object;)Zremove!
!"!#!$!%!&'()*!+,./:*123045/M*+,W1 236!7!0
P
Q89/r2+"YY
*
+W12232:!0Z\&^1_;</*!1230h=</*!1230r></*!1230|?</*!1230@A/I**Y*1230BC/I**Y*1230(DE</*!1230F</*!12
30G9/r2+"YY
*
+W12232:!0&1H9/>*+123"!0
I9/>*+123 !0
J9/>*+123$!0
K9/>*+123%!0
LM/>*+123+,0
NO/P*+123&'P&)0
(QR9/>*+123*!0

```

S9/>*+123#!0

TU

/*

File: Core.js

Description:

Provides common utility functions and the Class object used internally by the library.

Also provides the <TreeUtil> object for manipulating JSON tree structures

Some of the Basic utility functions and the Class system are based in the MooTools Framework <<http://mootools.net>>. Copyright (c) 2006-2009 Valerio Proietti, <<http://mad4milk.net/>>. MIT license <<http://mootools.net/license.txt>>.

Author:

Nicolas Garcia Belmonte

Copyright:

Copyright 2008-2009 by Nicolas Garcia Belmonte.

Homepage:

<<http://thejit.org>>

Version:

1.1.2

License:

BSD License

- > Redistribution and use in source and binary forms, with or without
- > modification, are permitted provided that the following conditions are met:
- > * Redistributions of source code must retain the above copyright
- > notice, this list of conditions and the following disclaimer.
- > * Redistributions in binary form must reproduce the above copyright
- > notice, this list of conditions and the following disclaimer in the
- > documentation and/or other materials provided with the distribution.
- > * Neither the name of the organization nor the
- > names of its contributors may be used to endorse or promote products
- > derived from this software without specific prior written permission.
- >
- > THIS SOFTWARE IS PROVIDED BY Nicolas Garcia Belmonte ``AS IS" AND ANY
- > EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED

> WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE
 > DISCLAIMED. IN NO EVENT SHALL Nicolas Garcia Belmonte BE LIABLE FOR ANY
 > DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES
 > (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
 > LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND
 > ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 > (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
 > SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

*/

0Z4clover/com/atlassian/license/AbstractLicenseRegistryjava/lang/Object,clover/com/atlassian/license/LicenseRegi
 stryAbstractLicenseRegistry.java<init>()V

this6Lclover/com/atlassian/license/AbstractLicenseRegistry;getAllLicenseTypes()Ljava/util/Collection;getLicenseT
 ype>(Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;-clover/com/atlassian/license/LicenseException
 java/util/Collectioniterator()Ljava/util/Iterator;java/util/IteratorhasNext()Z

next(Ljava/lang/Object;)"#\$(clover/com/atlassian/license/LicenseType&getDescription()Ljava/lang/String;()*java/l
 ang/String,toLowerCase.)

-/indexOf(Ljava/lang/String;)I12

-3java/lang/StringBuffer5

6

The license type (8append,(Ljava/lang/String;)Ljava/lang/StringBuffer;::

6<) specified is invalid.>toString@)

6A(Ljava/lang/String;)VC

DlicenseType*Lclover/com/atlassian/license/LicenseType;licenseTypeDescLjava/lang/String;Ljava/util/Iterator;typ
 e-(I)Lclover/com/atlassian/license/LicenseType;getType()IMN'O(I)Ljava/lang/StringBuffer;:Q

6RlCodeLocalVariableTableLineNumberTable

Exceptions

SourceFile! U/*V

W

UZ*M,!*,%'N-+0:+04-Y6Y79=+=?=BEV4FG(HI

0JZ

ZKIW(57:XLUL*M,!*,%'N-P-Y6Y79=S?=BEV*FG

"JL

LKTW#%"()),*XY

0

2clover/com/atlassian/extras/api/crowd/CrowdLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicen
 seCrowdLicense.java

SourceFile

0tWclover/com/atlassian/license/applications/perforceplugin/PerforcePluginLicenseTypeStore-

clover/com/atlassian/license/LicenseTypeStore#PerforcePluginLicenseTypeStore.javaPERFORCE_ACADEMIC*L

clover/com/atlassian/license/LicenseType;PERFORCE_EVALUATIONPERFORCE_DEMONSTRATIONPERFO

RCE_NON_PROFITPERFORCE_COMMUNITYPERFORCE_DEVELOPERPERFORCE_OPEN_SOURCEPERF

ORCE_FULL_LICENSEpublicKeyFileNameLjava/lang/String;privateKeyFileName<init>()V

applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z

"

\$ & (* ,

.thisYLclover/com/atlassian/license/applications/perforceplugin/PerforcePluginLicenseTypeStore;getAllLicenses()L

java/util/Collection;getPublicKeyFileName()Ljava/lang/String; 6getPrivateKeyFileName

9<clinit>/clover/com/atlassian/license/DefaultLicenseType<Perforce:
Academic>+clover/com/atlassian/extras/api/LicenseType@ACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;BC ADnameF5
AG*(ILjava/lang/String;ZZLjava/lang/String;)VI
=JPerforce: EvaluationL
COMMERCIALNC AOPerforce: DemonstrationQ
DEMONSTRATIONS AT"Perforce: Non-Profit / Open SourceV
NON_PROFITXC AYPerforce: Community[COMMUNITY]C A^Perforce: Developer` DEVELOPERbC AcPerforce:
Open SourceeOPEN_SOURCEgC AhPerforce:
CommercialjCclover/com/atlassian/license/applications/jira/JiraLicenseTypeStorel m6
m9CodeLocalVariableTableLineNumberTable
SourceFile!

p]**!W*#!W*%!W*!W*)!W*+!W*-!W*!/Wq]01r*
! "%#0\$;%F&Q\ (23p/*q01r,45p.7q01r185p.:q01r6;p=Y3?EHK=Y7MPHK#=Y8RUHK+=Y9WZHK%=Y:_HK)=Y
;adHK-=Y<fiHK/=Y=kPHK'n7o:r*
.E\ss
From: <http://www.json.org/license.html>

=====
=====
Copyright (c) 2002 JSON.org

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

The Software shall be used for Good, not Evil.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

This copy of JNA is licensed under the Apache (Software) License, version 2.0 ("the License"). See the License for details about distribution rights, and the specific rights regarding derivative works.

You may obtain a copy of the License at:

<http://www.apache.org/licenses/>

A copy is also included in the downloadable source code package containing JNA, in file "AL2.0", under the same directory as this file.

```
0)8clover/com/atlassian/extras/core/jira/DefaultJiraLicense6clover/com/atlassian/extras/core/DefaultProductLicense
0clover/com/atlassian/extras/api/jira/JiraLicenseDefaultJiraLicense.javalicenseEdition0Lclover/com/atlassian/extras/
api/LicenseEdition;<init>g(Lclover/com/atlassian/extras/api/Product;Lclover/com/atlassian/extras/common/util/Lice
nseProperties;)V
```

```
LicenseEdition9clover/com/atlassian/extras/common/util/LicensePropertiesgetProperty&(Ljava/lang/String;)Ljava/l
ang/String;@clover/com/atlassian/extras/common/LicenseTypeAndEditionResolvergetLicenseEditionD(Ljava/lang/
String;)Lclover/com/atlassian/extras/api/LicenseEdition;
```

```
this:Lclover/com/atlassian/extras/core/jira/DefaultJiraLicense;product)Lclover/com/atlassian/extras/api/Product;lice
nseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;2()Lclover/com/atlassian/extras/api/Lice
nseEdition;CodeLocalVariableTableLineNumberTable
```

SourceFile

```
%\*+,
```

```
*,& !"#$/%/*&'(
```

```
0-
```

```
clover/com/atlassian/license/LicenseExceptionjava/lang/ExceptionLicenseException.java<init>(Ljava/lang/String;)
```

V

```
this:Lclover/com/atlassian/license/LicenseException;messageLjava/lang/String;(Ljava/lang/Throwable;)V
```

```
causeLjava/lang/Throwable;*(Ljava/lang/String;Ljava/lang/Throwable;)V
```

CodeLocalVariableTableLineNumberTable

SourceFile!>*+

```
>*+
```

```
I*+,
```

```
0!2clover/com/atlassian/license/MemoryLicenseRegistryjava/lang/Object,clover/com/atlassian/license/LicenseRegis
tryMemoryLicenseRegistry.javaLICENSELjava/lang/String;HASH<init>()V
```

```
this4Lclover/com/atlassian/license/MemoryLicenseRegistry;setLicenseMessage(Ljava/lang/String;)V
```

licenseMessagesetLicenseHash

```
licenseHashgetLicenseMessage()Ljava/lang/String;getLicenseHashCodeLocalVariableTableLineNumberTable
```

SourceFile!

```
/*=*+
```

```
=+
```

```
..
```

```
0X.clover/com/atlassian/license/DefaultSIDManagerjava/lang/Object'clover/com/atlassian/license/SIDManagerDefa
ultSIDManager.javaCHARACTER_POOLLjava/lang/String;$ABCDEFGHIJKLMNPOQRSTUVWXYZ01234567
```

```
89
```

```
BAD_WORDS[Ljava/lang/String;
```

```

KEY_LENGTHICURRENT_VERSION_INITIAL_CHARCBPREVIOUS_VERSIONS_INITIAL_CHARSASEPA
RATOR_CHAR-randomLjava/security/SecureRandom;<init>()V([B)V
this0Lclover/com/atlassian/license/DefaultSIDManager;
"java/lang/System$currentTimeMillis()J&'
%(java/lang/String*valueOf(J)Ljava/lang/String;,-
+.java/lang/StringBuffer0
1"append,(Ljava/lang/String;)Ljava/lang/StringBuffer;34
15:7identityHashCode(Ljava/lang/Object;)I9:
%:(I)Ljava/lang/StringBuffer;3=
1>toString()Ljava/lang/String;@A
1B
getProperties()Ljava/util/Properties;DE
%Fjava/util/PropertiesH
IBgetBytes()[BKL
+Mjava/security/SecureRandomO
P RseedStrseed[BgenerateSID(C)Ljava/lang/StringBuffer;3X
1Y
nextDouble()D[\
P]length()I_`
+acharAt(I)Ccd
+egetCharacterForCRC([B)Cgh
i
isKeyClean(Ljava/lang/String;)Zkl
mindexi charCountresLjava/lang/StringBuffer;
isValidSIDvalidateStringSyntaxul
v substring(I)Ljava/lang/String;xy
+zkeyStrcrcChar checkCharsidvalidZindexOf(I)I
+java/util/zip/CRC32
"update
getValue'
bytescrc32Ljava/util/zip/CRC32;crcValueJstripDashesAndNumbers&(Ljava/lang/String;)Ljava/lang/String;

(Ljava/lang/String;)I
+badWordkeycharKey--clover/com/atlassian/license/util/StringUtils
replaceAll(Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;)Ljava/lang/String;
123E45S6G7T8B9P0O<clinit>FUCKSHITCOCKDICKCUNTTWATBITCHBASTARDJIZJISMFARTCRAPASS
PORNPISSPUSSYBALLSTITTSBOOBSCOCHCUMCHOADDILDODOUCHECLITMUFFNOBPECKERPRIC
KPOONTANG QUEEFSNATCH
TWOPTYKECOONNIGFAGWANKERGOOKFUDGEPACKERQUEERRAGHEAD!SKANK#SPIC%GOD'DA
MN)FICK+SCHEISSE-SCHWANZ/FOTZE1HURE3
SCHWUCHTEL5SCHWUL7TITTEN9ARSCH;IDIOT=SAU?ASSHATATURDBURGLARCDIRTYSANICHEZE
FELCHGBLASENIWICKSERKFEUCHTMMOESEOMILCHTUETENQ
ConstantValueCodeLocalVariableTableLineNumberTable
SourceFile! S
SS SS T4*U !V
TY*#+G)/M1Y2,686,<?CM1Y2,686GJ6CM,NL*PY+QSU =T Y !YUVV"&')**+G-L0X1WATp1Y2L+BZW=>:+
ZW=#*S^bk6+fZW+*+CNjZW*+Cn+CU4;0=pOqp !hrsV:8;<=@B%C*H;IGJJ=PO`QkStlT3*+w=*+{N*-
Nj6+f6=U>| }$

```

~3 !3 -VYZ

]_a\$clfulTZ=+=P+b=B+fB+f=%+f+ f-+f-=U Z !Z XV*

pqsuwyl {6} VXghT% YM,+ ,B!bq6fU4% !% VoV

klT+*+M>2:,U4 !p+ !+ % V!#)Te+M,M,M,M,M,M,M,M,M,M,U e !e \r V2 \$-

6?HQZcTB+YSYSYSYSYSYSYSYSYSYSYS

SYSYSY

SYSYSYSYSYSYSYSYSYSYSYSYSYSYSYSYS

SYSYSY SY!SY"SY#SY\$SY%SY&SY'SY(SY)"SY*\$SY+&SY,(SY-

*SY.,SY/.SY0SY12SY24SY36SY48SY5:SY6<SY7>SY8@SY9BSY:DSY;FSY<HSY=JSY>LSY?NSY@PSYA

RSVW

/*

* The Apache Software License, Version 1.1

*

* Copyright (c) 2000-2003 The Apache Software Foundation. All rights

* reserved.

*

* Redistribution and use in source and binary forms, with or without

* modification, are permitted provided that the following conditions

* are met:

*

* 1. Redistributions of source code must retain the above copyright

* notice, this list of conditions and the following disclaimer.

*

* 2. Redistributions in binary form must reproduce the above copyright

* notice, this list of conditions and the following disclaimer in

* the documentation and/or other materials provided with the

* distribution.

*

* 3. The end-user documentation included with the redistribution, if

* any, must include the following acknowledgement:

* "This product includes software developed by the

* Apache Software Foundation (<http://www.apache.org/>)."

* Alternately, this acknowledgement may appear in the software itself,

* if and wherever such third-party acknowledgements normally appear.

*

* 4. The names "Ant" and "Apache Software

* Foundation" must not be used to endorse or promote products derived

* from this software without prior written permission. For written

* permission, please contact apache@apache.org.

*

* 5. Products derived from this software may not be called "Apache"

* nor may "Apache" appear in their names without prior written

* permission of the Apache Group.

*

* THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED

* WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES

* OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE

* DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR

* ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
 * SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
 * LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF
 * USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND
 * ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY,
 * OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT
 * OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
 * SUCH DAMAGE.

* =====

*
 *

* This software consists of voluntary contributions made by many
 * individuals on behalf of the Apache Software Foundation. For more
 * information on the Apache Software Foundation, please see
 * <<http://www.apache.org/>>.

*/

```

0IGclover/com/atlassian/license/applications/clover/CloverLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreCloverLicenseTypeStore.javaCLOVER_ACADEMIC*Lclover/com/
atlassian/license/LicenseType;CLOVER_COMMERCIALCLOVER_COMMUNITYCLOVER_EVALUATIONCL
OVER_OPEN_SOURCECLOVER_DEVELOPERCLOVER_DEMONSTRATIONpublicKeyFileNameLjava/lang/
String;privateKeyFileName<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z
! #
% ' )
+thisILclover/com/atlassian/license/applications/clover/CloverLicenseTypeStore;getAllLicenses()Ljava/util/Collecti
on;getPublicKeyFileName()Ljava/lang/String; 3getPrivateKeyFileName
6<clinit>/clover/com/atlassian/license/DefaultLicenseType9Clover:
Academic;+clover/com/atlassian/extras/api/LicenseType=ACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;?@ >AnameC2
>D*(ILjava/lang/String;ZZLjava/lang/String;)VF
:GClover: CommercialI
COMMERCIALK@ >LClover: CommunityN COMMUNITYP@ >QClover: EvaluationSClover: Open
SourceUOPEN_SOURCEW@ >XClover: DeveloperZ DEVELOPER\@ >]Clover: Demonstration_
DEMONSTRATIONa@
>b$clover/com/atlassian/clover/leaf.keydclover/clover.bytefCodeLocalVariableTableLineNumberTable
SourceFile!

```

```

hR** W*" W*$ W*& W*( W** W*, WiR-.j& %0; F!Q"/0h/*i-.j&12h.4i-.j+52h.7i-
.j08h:Y<BEH:YJMEH":YOREH$:YTMEH&:YVYEH(:Y[^EH*:Y$cEH,e4g7j&
.E\sk

```

Public Domain Dedication

This license is acceptable for Free Cultural Works.

Copyright-Only Dedication (based on United States law) or Public Domain Certification

The person or persons who have associated work with this document (the "Dedicator" or "Certifier") hereby either
 (a) certifies that, to the best of his knowledge, the work of authorship identified is in the public domain of the
 country from which the work is published, or (b) hereby dedicates whatever copyright the dedicators holds in the

work of authorship identified below (the "Work") to the public domain. A certifier, moreover, dedicates any copyright interest he may have in the associated work, and for these purposes, is described as a "dedicator" below.

A certifier has taken reasonable steps to verify the copyright status of this work. Certifier recognizes that his good faith efforts may not shield him from liability if in fact the work certified is not in the public domain.

Dedicator makes this dedication for the benefit of the public at large and to the detriment of the Dedicator's heirs and successors. Dedicator intends this dedication to be an overt act of relinquishment in perpetuity of all present and future rights under copyright law, whether vested or contingent, in the Work. Dedicator understands that such relinquishment of all rights includes the relinquishment of all rights to enforce (by lawsuit or otherwise) those copyrights in the Work.

Dedicator recognizes that, once placed in the public domain, the Work may be freely reproduced, distributed, transmitted, used, modified, built upon, or otherwise exploited by anyone for any purpose, commercial or non-commercial, and in any way, including by methods that have not yet been invented or conceived.

GNU LIBRARY GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1991 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if

you distribute copies of the library, or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

.

GNU LIBRARY GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not

covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If

identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding

machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the

Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Library General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.

EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

```
0@clover/com/atlassian/extras/core/crucible/DefaultCrucibleLicense6clover/com/atlassian/extras/core/DefaultProdu
ctLicense8clover/com/atlassian/extras/api/crucible/CrucibleLicenseDefaultCrucibleLicense.java<init>g(Lclover/co
m/atlassian/extras/api/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V
```

```
thisBLclover/com/atlassian/extras/core/crucible/DefaultCrucibleLicense;product)Lclover/com/atlassian/extras/api/Pr
oduct;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;CodeLocalVariableTableLine
NumberTable
```

```
SourceFile I*+,
```

```
1)
```

```
! " # $ % & '(nameLjava/lang/String;urldistributioncomments<init>()VCodeLineNumberTableLocalVariableTablethis
Lorg/apache/maven/model/License;getComments()Ljava/lang/String;getDistributiongetNamegetUrlsetComments(Lj
ava/lang/String;)VsetDistributionsetNamegetUrl
```

```
SourceFileLicense.java
```

```
org/apache/maven/model/Licensejava/lang/Objectjava/io/Serializable!
```

```
/*J/*]/*g/*q>*+
```

```
{|>*+
```

```
>*+
```

```
>*+
```


Javolution - Java(TM) Solution for Real-Time and Embedded Systems
Copyright (c) 2006, Javolution (<http://javolution.org>)
All rights reserved.

Redistribution and use in source and binary forms, with or without modification,
are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice,
this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice,
this list of conditions and the following disclaimer in the documentation
and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND
ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED
WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE
DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR
ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES
(INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON
ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

0

```
6clover/com/atlassian/extras/api/fisheye/FisheyeLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLic  
enseFisheyeLicense.java
```

```
SourceFile
```

```
/*
```

```
Copyright (c) 2000, Derek Petillo  
All rights reserved.
```

Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are
met:

Redistributions of source code must retain the above copyright notice,
this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright
notice, this list of conditions and the following disclaimer in the
documentation and/or other materials provided with the distribution.

Neither the name of Praxis Software nor the names of its contributors
may be used to endorse or promote products derived from this software
without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS

IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

*/

=====

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from the 'org.apache.commons' to the 'clover.org.apache.commons'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of

this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only

on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

/*--

\$Id: LICENSE.txt,v 1.11 2004/02/06 09:32:57 jhunter Exp \$

Copyright (C) 2000-2004 Jason Hunter & Brett McLaughlin.
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions, and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the disclaimer that follows

these conditions in the documentation and/or other materials provided with the distribution.

3. The name "JDOM" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <request_AT_jdom_DOT_org>.
4. Products derived from this software may not be called "JDOM", nor may "JDOM" appear in their name, without prior written permission from the JDOM Project Management <request_AT_jdom_DOT_org>.

In addition, we request (but do not require) that you include in the end-user documentation provided with the redistribution and/or in the software itself an acknowledgement equivalent to the following:

"This product includes software developed by the JDOM Project (<http://www.jdom.org/>)."

Alternatively, the acknowledgment may be graphical using the logos available at <http://www.jdom.org/images/logos>.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the JDOM Project and was originally created by Jason Hunter <jhunter_AT_jdom_DOT_org> and Brett McLaughlin <brett_AT_jdom_DOT_org>. For more information on the JDOM Project, please see <<http://www.jdom.org/>>.

*/

```
03clover/com/atlassian/license/decoder/LicenseDecoder.java1clover/com/atlassian/
extras/common/log/Logger$Log-
clover/com/atlassian/extras/common/log/LoggerLoglog3Lclover/com/atlassian/extras/common/log/Logger$Log;DU
RATION_PREFIXL.java/lang/String; Duration:JIRA_APPLICATION_NAMEJIRA_CONF_APPLICATION_NAME
CONFLUENCE9class$Sclover$com$atlassian$license$decoder$LicenseDecoderL.java/lang/Class;<init>()V
this5Lclover/com/atlassian/license/decoder/LicenseDecoder;
getLicensed(Lclover/com/atlassian/license/LicensePair;L.java/lang/String;)Lclover/com/atlassian/license/License;-
clover/com/atlassian/license/LicenseException!getPublicKey-(L.java/lang/String;)L.java/security/PublicKey;#$
%loadLicense}(Lclover/com/atlassian/license/LicensePair;L.java/security/PublicKey;L.java/lang/String;)Lclover/co
```

```

m/atlassian/license/License;'(
)java/lang/RuntimeException+
getMessage()Ljava/lang/String;-
"/*(Ljava/lang/String;Ljava/lang/Throwable;)V1
,2e/Lclover/com/atlassian/license/LicenseException;pair*Lclover/com/atlassian/license/LicensePair;applicationNam
eisValid?(Lclover/com/atlassian/license/LicensePair;Ljava/lang/String;)Z
;java/lang/Exception=getPublicKeyFilename&(Ljava/lang/String;)Ljava/lang/String;?@
ACjava/lang/StringEequals(Ljava/lang/Object;)ZGH
FI]The filename for the public key is null. This must be set before a public key can be
located.K(Ljava/lang/String;)VM
"NloadPublicKeyFromFileP$
Q Sjava/lang/StringBufferU
V!Exception looking up public key: Xappend.(Ljava/lang/String;)Ljava/lang/StringBuffer;Z[
V\
>/toString_
V error*(Ljava/lang/Object;Ljava/lang/Throwable;)VbcdfException getting verification from file - possible
classloader problem, or corrupt JIRA installation
fLjava/lang/Exception;publicKeyFileNamejava/io/IOExceptionj&java/security/NoSuchAlgorithmException*java/s
ecurity/spec/InvalidKeySpecExceptionnjava/lang/Threadp
currentThread()Ljava/lang/Thread;rs
qtgetContextClassLoader()Ljava/lang/ClassLoader;vw
qxjava/lang/ClassLoaderzgetResourceAsStream)(Ljava/lang/String;)Ljava/io/InputStream;{|}
{~ getClass()Ljava/lang/Class;
java/lang/ClassGetComponentType
getClassLoaderw
)clover/com/atlassian/license/LicenseUtilsreadKey(Ljava/io/InputStream;)[B
java/io/InputStreamclose
%java/security/spec/X509EncodedKeySpec([B)V
DSAjava/security/KeyFactorygetInstance.(Ljava/lang/String;)Ljava/security/KeyFactory;
generatePublic7(Ljava/security/spec/KeySpec;)Ljava/security/PublicKey;
keyfisLjava/io/InputStream;
contextLoaderLjava/lang/ClassLoader;encKey[B
pubKeySpec'Ljava/security/spec/X509EncodedKeySpec;
keyFactoryLjava/security/KeyFactory;(clover/com/atlassian/license/LicensePairisNG()Z
parseNewLicense
parseOldLicense(
(Ljava/lang/Object;)Vb publicKeyLjava/security/PublicKey;!java/security/InvalidKeyException
java/security/SignatureExceptionSHA1withDSAjava/security/Signature-
(Ljava/lang/String;)Ljava/security/Signature;

initVerify(Ljava/security/PublicKey;)V
()[B
update
getHash
verify([B)Z
getDecodedMessage([B)Ljava/lang/String;
java/util/StringTokenizer^(Ljava/lang/String;Ljava/lang/String;)V

```



```

hasMoreTokens
nextToken.
java/lang/IntegerparseInt(Ljava/lang/String;)I
+clover/com/atlassian/license/LicenseManager/()Lclover/com/atlassian/license/LicenseManager;
getLicenseType?(Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;
-clover/com/atlassian/extras/common/DateEditorgetDate$(Ljava/lang/String;)Ljava/util/Date;
(clover/com/atlassian/license/LicenseTypeexpires
getOriginalLicenseString.

getLicenseIdFromLicenseString@
requiresUserLimit|split'(Ljava/lang/String;)[Ljava/lang/String;
F%License contained invalid user
limit:+clover/com/atlassian/license/DefaultLicense(Ljava/util/Date;Ljava/util/Date;Ljava/util/Date;Ljava/lang/String
;Lclover/com/atlassian/license/LicenseType;ILjava/lang/String;Ljava/lang/String;ILjava/lang/String;)V
"Signature did not verify
properly."warn$%usersAndClustersLimitsparts[Ljava/lang/String;licenseTypeCode|licenseType*Lclover/com/atlas
sian/license/LicenseType;dateCreatedLjava/util/Date;
datePurchaseddateExpiresorganisation licenseIdusersclusterCountpartnerName
messageString tokenizerLjava/util/StringTokenizer;
signatureLjava/security/Signature;=clover/com/atlassian/extras/decoder/v2/Version2LicenseDecoder<
= canDecode(Ljava/lang/String;)Z?@
=A Failed to decode as V2 license:
C,(Ljava/lang/Object;)Ljava/lang/StringBuffer;ZE
VFdecode*(Ljava/lang/String;)Ljava/util/Properties;HI
=J
lookupProduct=(Ljava/lang/String;)Lclover/com/atlassian/extras/api/Product;LM
N@clover/com/atlassian/extras/common/util/ProductLicensePropertiesPB(Lclover/com/atlassian/extras/api/Product;
Ljava/util/Properties;)VR
QSLicenseEditionUgetPropertyW@
QXLicenseTypeZP(Ljava/lang/String;Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;\
]LicenseTypeName_
Evaluationajava/lang/BooleancvalueOf(Ljava/lang/String;)Ljava/lang/Boolean;ef
dgbooleanValuei
dj@clover/com/atlassian/extras/common/LicenseTypeAndEditionResolver|getLicenseEditionD(Ljava/lang/String;)
Lclover/com/atlassian/extras/api/LicenseEdition;no
mp>clover/com/atlassian/extras/legacy/util/OldLicenseTypeResolverr(Lclover/com/atlassian/extras/api/Product;Lja
va/lang/String;ZLclover/com/atlassian/extras/api/LicenseEdition;)Lclover/com/atlassian/license/LicenseType;t
su3clover/com/atlassian/license/decoder/LicenseAdaptorwh(Lclover/com/atlassian/extras/common/util/LicenseProp
erties;Lclover/com/atlassian/license/LicenseType;)Vy
xzlicenseDecoder?Lclover/com/atlassian/extras/decoder/v2/Version2LicenseDecoder;propLjava/util/Properties;prod
uct)Lclover/com/atlassian/extras/api/Product;productPropertiesBLclover/com/atlassian/extras/common/util/Product
LicenseProperties;editionName|licenseTypeString'clover/com/atlassian/extras/api/Productvalues,()Lclover/com/atla
ssian/extras/api/Product;
getName.
equalsIgnoreCase@
FgetNameSpace.
replace(CC)Ljava/lang/String;
F"java/lang/IllegalArgumentException Could not find product for key <>

```

```

Narr$*[Lclover/com/atlassian/extras/api/Product;len$i$keylength()I
F
-clover/com/atlassian/license/util/StringUtils
replaceAll(JLjava/lang/String;Ljava/lang/String;Ljava/lang/String;)Ljava/lang/String;

    substring(II)Ljava/lang/String;
FtoUpperCase.
ForiginalLicenseString$java/io/UnsupportedEncodingExceptionUTF-8([BLjava/lang/String;)V
F(Ljava/lang/Throwable;)V
,&Ljava/io/UnsupportedEncodingException;messageX(Lclover/com/atlassian/license/LicensePair;Ljava/security/Pu
blicKey;Ljava/lang/String;)ZgetLicenseTypeStoreC(Ljava/lang/String;)Lclover/com/atlassian/license/LicenseTypeS
tore;
-clover/com/atlassian/license/LicenseTypeStoregetPublicKeyFileName.
<clinit>F(Ljava/lang/Class;)Lclover/com/atlassian/extras/common/log/Logger$Log;

ConstantValue SyntheticCodeLocalVariableTableLineNumberTable
Exceptions
SourceFileInnerClasses!
/*# f*+&+*M,Y,0,3
"
45678.
02 9:B*+<6788
#$K*BL+D+J
"YLO+RMTVYWY],^]a,e"YgO !> ")4hK8Fi=?@D!F"HAI" P$WLuyM, ,*L+!YWY*L+N+Y-::>WiU N:HO.OP R
SVW5Z:[>]H^O`kmo
'( * *,*+,NT->
>*4h 67 8gk
ortu (-N+-*-*:Y:6,::: :

:
*:6
6X:.' "YVYW]]aO26
26:
:Y

!T#&N'D()F*+Q,-[./e0/ h1/
234+
5+*6'7489-67--8':;!{|}4<FQ[ehr| +
m"
X
=Y>M,*B"YVYWD]*GaO,*KN+O:QY-T:VY:[Y:+^:.`YbYhkqv:xY{f
n,-678|}8p~>jJ^TT,-^J2/8>JT^cq"
LM]L+=>0+2:* _YVYW]*]]a4"74+ 2+]25;
@f4*0*F'*DDD;ED4
1
ZFY*L,Y+
4
9M*+,* 678

```

MOZILLA PUBLIC LICENSE
Version 1.1

1. Definitions.

1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.

1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.

1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. "Executable" means Covered Code in any form other than Source Code.

1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

1.8. "License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

A. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.

B. Any new file that contains any part of the Original Code or previous Modifications.

1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1. The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

- (a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and

(b) under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).

(c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: 1) for code that You delete from the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters

(a) Third Party Claims.

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after

the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

(b) Contributor APIs.

If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

(c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or

collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

6. Versions of the License.

6.1. New Versions.

Netscape Communications Corporation ("Netscape") may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions.

Once Covered Code has been published under a particular version of the

License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works.

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABILITY, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

8. TERMINATION.

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

(a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY

RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10. U.S. GOVERNMENT END USERS.

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as

"Multiple-Licensed". "Multiple-Licensed" means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the NPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

EXHIBIT A -Mozilla Public License.

``The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.mozilla.org/MPL/>

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is _____.

The Initial Developer of the Original Code is _____.

Portions created by _____ are Copyright (C) _____
_____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms of the _____ license (the "[] License"), in which case the provisions of [] License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [] License and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [] License. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the [] License."

[NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications.]

```
0&Dclover/com/atlassian/extras/core/confluence/DefaultConfluenceLicense6clover/com/atlassian/extras/core/Defau
ltProductLicense<clover/com/atlassian/extras/api/confluence/ConfluenceLicenseDefaultConfluenceLicense.javamax
imumNumberClusterNodesI<init>g(Lclover/com/atlassian/extras/api/Product;Lclover/com/atlassian/extras/common
/util/LicenseProperties;)V
```

```
NumberOfClusterNodes9clover/com/atlassian/extras/common/util/LicensePropertiesgetInt(Ljava/lang/String;I)I
thisFLclover/com/atlassian/extras/core/confluence/DefaultConfluenceLicense;product)Lclover/com/atlassian/extras/
api/Product;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;
```

```
maxClustNodesgetMaximumNumberOfClusterNodes()ICodeLocalVariableTableLineNumberTable
SourceFile
"t *+,
,>*## $ !"/*##$%
libffi - Copyright (c) 1996-2014 Anthony Green, Red Hat, Inc and others.
See source files for details.
```

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the ``Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED ``AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

=====

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package name from 'com.lowagie' to 'clover.com.lowagie'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====

MOZILLA PUBLIC LICENSE

Version 1.1

1. Definitions.

1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.

1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.

1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. "Executable" means Covered Code in any form other than Source Code.

1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

1.8. "License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

A. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.

B. Any new file that contains any part of the Original Code or previous Modifications.

1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1. The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and

(b) under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).

(c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: 1) for code that You delete from the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters

(a) Third Party Claims.

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

(b) Contributor APIs.

If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

(c) Representations.

Contributor represents that, except as disclosed pursuant to

Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

6. Versions of the License.

6.1. New Versions.

Netscape Communications Corporation ("Netscape") may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions.

Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works.

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and

Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABILITY, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

8. TERMINATION.

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

(a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10. U.S. GOVERNMENT END USERS.

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as "Multiple-Licensed". "Multiple-Licensed" means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the NPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

EXHIBIT A -Mozilla Public License.

``The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.mozilla.org/MPL/>

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations

under the License.

The Original Code is _____.

The Initial Developer of the Original Code is _____.

Portions created by _____ are Copyright (C) _____
_____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms of the _____ license (the "[_____] License"), in which case the provisions of [_____] License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [_____] License and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [_____] License. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the [_____] License."

[NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications.]

0

```
,clover/com/atlassian/license/LicenseRegistryjava/lang/ObjectLicenseRegistry.javasetLicenseMessage(Ljava/lang/String;)VsetLicenseHashgetLicenseMessage(Ljava/lang/String;getLicenseHash  
SourceFile
```

```
=====  
=====
```

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package name from 'com.google.common' to 'clover.com.google.common'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

```
=====  
=====
```

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems,

and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and

limitations under the License.

Apache Velocity

Copyright (C) 2000-2007 The Apache Software Foundation

This product includes software developed at

The Apache Software Foundation (<http://www.apache.org/>).

0Cclover/com/atlassian/license/applications/jira/JiraLicenseTypeStore-

clover/com/atlassian/license/LicenseTypeStoreJiraLicenseTypeStore.javaAPPLICATION_NAMELjava/lang/String;
JIRAJIRA_STANDARD_ACADEMIC*Lclover/com/atlassian/license/LicenseType;JIRA_STANDARD_EVALUA
TIONJIRA_STANDARD_NON_PROFITJIRA_STANDARD_FULL_LICENSEJIRA_STANDARD_COMMUNI
TYJIRA_STANDARD_OPEN_SOURCEJIRA_STANDARD_DEVELOPERJIRA_STANDARD_DEMONSTRAT
IONJIRA_STANDARD_PERSONALJIRA_STANDARD_STARTERJIRA_PROFESSIONAL_ACADEMICJIRA
_PROFESSIONAL_EVALUATIONJIRA_PROFESSIONAL_NON_PROFITJIRA_PROFESSIONAL_FULL_LIC
ENSEJIRA_PROFESSIONAL_COMMUNITYJIRA_PROFESSIONAL_OPEN_SOURCEJIRA_PROFESSIONAL
_DEVELOPERJIRA_PROFESSIONAL_DEMONSTRATIONJIRA_PROFESSIONAL_PERSONALJIRA_PROFE
SSIONAL_STARTERJIRA_ENTERPRISE_ACADEMICJIRA_ENTERPRISE_EVALUATIONJIRA_ENTERPRI
SE_NON_PROFITJIRA_ENTERPRISE_FULL_LICENSEJIRA_ENTERPRISE_HOSTEDJIRA_ENTERPRISE_C
OMMUNITYJIRA_ENTERPRISE_OPEN_SOURCEJIRA_ENTERPRISE_DEVELOPERJIRA_ENTERPRISE_D
EMONSTRATIONJIRA_ENTERPRISE_TESTINGJIRA_ENTERPRISE_PERSONALJIRA_ENTERPRISE_STA
RTERpublicKeyFileNameprivateKeyFileName<init>()V-

/applicationLicenseTypesLjava/util/ArrayList;12 3

5java/util/ArrayList7add(Ljava/lang/Object;)Z9:

8; =

? A C E G I K M O Q S U W Y [] _ a c e ! g " i # k \$ m % o & q ' s (u) w *

ythisELclover/com/atlassian/license/applications/jira/JiraLicenseTypeStore;getAllLicenses()Ljava/util/Collection;ge
tPublicKeyFileName()Ljava/lang/String;+ getPrivateKeyFileName,

<clinit>/clover/com/atlassian/license/DefaultLicenseTypeJIRA Standard:

Academic+clover/com/atlassian/extras/api/LicenseTypeACADEMIC-

Lclover/com/atlassian/extras/api/LicenseType; name

.clover/com/atlassian/extras/api/LicenseEditionSTANDARD0Lclover/com/atlassian/extras/api/LicenseEdition;

Z(ILjava/lang/String;ZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)V-

JIRA Standard: Evaluation

COMMERCIAL 'JIRA Standard: Non-Profit / Open Source

NON_PROFIT JIRA Standard: Commercial ServerJIRA Standard: Community COMMUNITY JIRA Standard: Open

SourceOPEN_SOURCE JIRA Standard: Developer DEVELOPER JIRA Standard: Demonstration

DEMONSTRATION JIRA Standard: PersonalPERSONAL JIRA Standard: StarterSTARTER JIRA Professional:

AcademicPROFESSIONAL JIRA Professional: Evaluation+JIRA Professional: Non-Profit / Open Source\$JIRA

Professional: Commercial ServerJIRA Professional: CommunityJIRA Professional: Open SourceJIRA Professional:

Developer JIRA Professional: DemonstrationJIRA Professional: PersonalJIRA Professional: StarterJIRA Enterprise:

Academic

ENTERPRISE JIRA Enterprise: Evaluation)JIRA Enterprise: Non-Profit / Open Source"JIRA Enterprise:

Commercial ServerJIRA Enterprise: HostedHOSTED JIRA Enterprise: CommunityJIRA Enterprise: Open

SourceJIRA Enterprise: DeveloperJIRA Enterprise: DemonstrationJIRA Enterprise: TestingTESTING

[(ILjava/lang/String;ZZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)V-

JIRA Enterprise: PersonalJIRA Enterprise: Starter"clover/com/atlassian/jira/leaf.keyjira/jira.byte

ConstantValueCodeLocalVariableTableLineNumberTable

SourceFile!#

```

! " # $ % & ' ( ) * + , -
.e*0*46<W*4><W*4@<W*4B<W*4D<W*4F<W*4H<W*4J<W*4L<W*4N<W*4P<W*4R<W*4T<W*4V<W*4
X<W*4Z<W*4\<W*4^<W*4`<W*4b<W*4d<W*4f<W*4h<W*4j<W*4l<W*4n<W*4p<W*4r<W*4t<W*4v<W*
4x<W*4z<W*4{| "6789%:0;<F=Q>\?g@rB}CDEFGHIJKLMNOPQR"S-T8UCVNWXYxY}~/*4{[.]{| b.{| g.
BY6Ym>Y@YBYkDYzFYHYJYLYNY[PY/RYLTYWVY*XY'ZYR\Yc^YY`YZbY
dYfYhYjYlYnYpYrYtYvY!xY"z "3Mg3Le~ !"$/&I'c{)*+,-./52;3
0m-
clover/com/atlassian/license/LicenseTypeStorejava/lang/ObjectLicenseTypeStore.javaapplicationLicenseTypesLjav
a/util/ArrayList;<init>()V

java/util/ArrayList

this/Lclover/com/atlassian/license/LicenseTypeStore;getPublicKeyFileName()Ljava/lang/String;getPrivateKeyFileN
amegetLicenseType>(Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;-
clover/com/atlassian/license/LicenseExceptionjava/lang/Stringequals(Ljava/lang/Object;):Z
java/lang/StringBuffer"
#
1License description must be specified; you used [%append,(Ljava/lang/String;)Ljava/lang/StringBuffer;('
#)]+toString-
#.(Ljava/lang/String;)V0
1iterator()Ljava/util/Iterator;34

5java/util/Iterator7hasNext()Z9:8;next()Ljava/lang/Object;=>8?(clover/com/atlassian/license/LicenseTypeAgetDesc
riptionCBD:License type added with an invalid description; you used [FtoLowerCaseH
indexOf(Ljava/lang/String;)IKL
M(LicenseType not found with description
[OlicenseType*Lclover/com/atlassian/license/LicenseType;licenseTypeDescLjava/lang/String;Ljava/util/Iterator;lic
enseTypeString-(I)Lclover/com/atlassian/license/LicenseType;getType()IXYBZThe license type
(\(I)Ljava/lang/StringBuffer;^
#_) specified is
invalid.alicenseCodeIlookupLicenseTypegetAllLicenses()Ljava/util/Collection;CodeLocalVariableTableLineNumbe
rTable
Exceptions
SourceFile! h>**
Yij
h;+#!#Y#Y$&*+*,*/2*6M,<f,@BN-E-E!(Y#Y$G*-E*,*/2-EJ:+JN-Y#Y$P*+*,*/2i4HVQRST5I3UVTj.
->H_!$&(*kWhJ*6M,<,@BN-[-Y#Y$]*`b*/2i*QR"3UJJcdj/13%4'5*6keWh,*6M,<,@BN-[-
i*QR"3U,.,cdj@BD%EF*Gfgh/*ijNI
0=clover/com/atlassian/extras/core/plugins/DefaultPluginLicense6clover/com/atlassian/extras/core/DefaultProductL
icense4clover/com/atlassian/extras/api/plugin/PluginLicenseDefaultPluginLicense.java<init>g(Lclover/com/atlassia
n/extras/api/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V

this?Lclover/com/atlassian/extras/core/plugins/DefaultPluginLicense;product)Lclover/com/atlassian/extras/api/Prod
uct;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;CodeLocalVariableTableLineNu
mberTable
SourceFile! I*+,

```

```

0com/cenqua/clover/CloverLicensejava/lang/ObjectCloverLicense.java | clover/com/atlassian/extras/common/log/Lo
gger$Log-clover/com/atlassian/extras/common/log/LoggerLog
GENERIC_ERRORLjava/lang/String;Invalid license data
CLOVER_EDITION_PROPERTYclover.license.editionCLOVER_EDITION_PROPERTY_DESKTOPdesktopON
E_DAYJ&\ PERMS_ALLPERMS_HIST_PDF@PERMS_HIST_HTML
PERMS_TEST_OPTPERMS_CURR_JSONPERMS_CURR_PDFPERMS_CURR_HTMLPERMS_CURR_XML
PERMS_HIST`
PERMS_CURR
PERMS_DESKTOPproductNamelicenseName
softExpiry
hardExpiryorganisationNameownerStatementpreExpiryStatementpostExpiryStatementcontactInfoStatementterminat
ionStatementsupportEntitlementNumberZallowedPkgPrefixesLjava/util/HashSet;maintExpirySupportedFeaturesread
From)(Ljava/io/InputStream;)Ljava/lang/String;(com/atlassian/clover/api/CloverExceptionLjava/io/IOExceptionNja
va/lang/StringBufferP<init>()VRS
QTjava/io/LineNumberReaderVjava/io/InputStreamReaderXUTF-8Z*(Ljava/io/InputStream;Ljava/lang/String;)VR\
Y](Ljava/io/Reader;)VR_
W readLine()Ljava/lang/String;bc
Wdappend,(Ljava/lang/String;)Ljava/lang/StringBuffer;fg
Qh
jtoStringlc
QmError reading license. o
getMessageqc
Or*(Ljava/lang/String;Ljava/lang/Throwable;)VRT
MulinelicenseCertLjava/lang/StringBuffer;linLjava/io/LineNumberReader;eLjava/io/IOException;
licenseInLjava/io/InputStream;(Ljava/lang/String;)Vjava/lang/NullPointerException
TconfigureLoggingForExtrasS
Product: Cloverjava/lang/StringindexOf(Ljava/lang/String;)I

Certificate: FCenqua licenses are no longer compatible with this version of Clover:
#com_cenqua_clover/CloverVersionInfoformatVersionInfoc
.
Please visit %http://www.atlassian.com/clover/renew to obtain a new clover.license.R
M6clover/com/atlassian/extras/core/LicenseManagerFactorygetLicenseManager2()Lclover/com/atlassian/extras/api/
LicenseManager;
.clover/com/atlassian/extras/api/LicenseManager
getLicenseF(Ljava/lang/String;)Lclover/com/atlassian/extras/api/AtlassianLicense;'clover/com/atlassian/extras/api/P
roductCLOVER)Lclover/com/atlassian/extras/api/Product;
0clover/com/atlassian/extras/api/AtlassianLicensegetProductLicense[(Lclover/com/atlassian/extras/api/Product;)Lcl
over/com/atlassian/extras/api/ProductLicense;4clover/com/atlassian/extras/api/clover/CloverLicenseNot a Clover
license. getProductLicenses()Ljava/util/Collection;,(Ljava/lang/Object;)Ljava/lang/StringBuffer;f
QisEvaluation()Z
getProduct+()Lclover/com/atlassian/extras/api/Product;getNamec
: getDescriptionc;
getOrganisation0()Lclover/com/atlassian/extras/api/Organisation;clover/com/atlassian/extras/api/Organisation>
getSupportEntitlementNumbercD getMaintenanceExpiryDate()Ljava/util/Date;java/util/DategetTime()J
H
getExpiryDate= getCreationDate~< License registered to .? 6You have $daysleft day(s) before your license
expires.@ Your license has expired.A C RPlease visit http://www.atlassian.com/ex/GenerateLicense.jspa to obtain a

```

license.

B allowedpkgprefixesgetProperty&(Ljava/lang/String;)Ljava/lang/String;trim
length()I
java/util/HashSet
TFG !java/util/StringTokenizer#, %'(Ljava/lang/String;Ljava/lang/String;)VR'
\$(
hasMoreTokens*
\$+ nextToken-c
\$.add(Ljava/lang/Object;)Z01
2equalsIgnoreCase(Ljava/lang/String;)Z45
6E 8I :Invalid license data [E1300]. <
rprefixesLjava/util/StringTokenizer;expiresallowedPkgPrefixesStredition
Ljava/lang/NullPointerException;this!Lcom/cenqua/clover/CloverLicense;manager0Lclover/com/atlassian/extras/ap
i/LicenseManager;atlLicense2Lclover/com/atlassian/extras/api/AtlassianLicense;license6Lclover/com/atlassian/extr
as/api/clover/CloverLicense;com/cenqua/clover/LicenseLoggerMcom/cenqua/clover/LoggerOgetInstance()Lcom/ce
nqua/clover/Logger;QR
PS(Lcom/cenqua/clover/Logger;)VRU
NVsetInstance6(Lclover/com/atlassian/extras/common/log/Logger\$Log;)VXY
Zr(Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;JJ)
VClover](Clover Evaluation License registered to _nameowner preExpiry
postExpiryterminationcontactInfosoftExpiryDatehardExpiryDategetProductNamegetLicenseName
getSoftExpiry
getHardExpirygetMaintExpiry isDesktop isExpiredjava/lang/SystemcurrentTimeMillisr
qs(J)Zou
vA
xtimeisTerminated{u
|
terminates~
isMaintenanceExpiredu
maintenanceExpires
getOwnerStatementgetPreExpiryStatementgetPostExpiryStatementgetContactInfoStatementgetTerminationStatemen
tisFeatureSupportedfeaturegetFeaturesSupportedgetAllowedPkgPrefixes(Ljava/util/Set;java/util/Collectionsunmodi
fiableSet (Ljava/util/Set;)Ljava/util/Set;
getDaysTillExpiry(J)J
countDays
nowdays
aMilliseconds
ConstantValueCodeLocalVariableTableLineNumberTable
Exceptions
SourceFileInnerClasses1 "#%&()+,./124578;:<=>?@ABCDEFGHI JK[QYULWYYY*[^aM,eN-+-
ikiW,eN+nLMYQYUpi+sin+v;:O4w3xy!z{<|}{~"CDE#F.E6H;I<JMR2 **+9+/MYQYUiiiiinM,+N-:#MYQYUi-
n6*****
*a *QYUiiiiin* *
* *:B7*Y "\$Y&);*/3W*":*79**9 8;:'MYQYU=i>invf
?@fAEsBC"|DEFxLGHTIJbKL#RSUWH]L^T`bbgcgijklnop s:vLw^xpywz}|~MS<NYTW[EF

R\+
k**^*+*,** *QYU`i,iin*_*

,*"9f
kEFkabbkckdkekfkgh
kIB!>CIOU[^ejic/*EFjc/*EFc/*EFc/*EFk/*EFl/*EFm/*EFn/*9EFo2*twEFouJ*y*EFz{2*t}EF{uJ**EFz2*tEFuJ**
EFzA9* EF~9* EF9* EFc/*EFc/*EFc/*
EFc/*EFc/*EFuE*; EF/*;EF=*"
*"EF2*tEFY**eB! ! EF
:mEF

=====
=====
Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package name from 'org.apache.commons' to 'clover.org.apache.commons'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====
=====
Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made,

use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions

for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability

incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

```
0>clover/com/atlassian/extras/api/greenhopper/GreenHopperLicensejava/lang/Object4clover/com/atlassian/extras/api/plugin/PluginLicense3clover/com/atlassian/extras/api/LicenseEditionAwareGreenHopperLicense.java  
SourceFile
```

```
0<clover/com/atlassian/extras/api/confluence/ConfluenceLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicenseConfluenceLicense.javagetMaximumNumberOfClusterNodes()  
SourceFile
```

http://www.atlassian.com/dms/wac/Atlassian_EULA_4-2.pdf

```
06clover/com/atlassian/extras/core/DefaultProductLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicenseDefaultProductLicense.javaEclover/com/atlassian/extras/core/DefaultProductLicense$DefaultContactDefaultContactJclover/com/atlassian/extras/core/DefaultProductLicense$DefaultOrganisationDefaultOrganisationEclover/com/atlassian/extras/core/DefaultProductLicense$DefaultPartnerDefaultPartnerMILLIS_IN_A_DAYJ&\licenseVersionIdescriptionLjava/lang/String;product)Lclover/com/atlassian/extras/api/Product;serverIdpartner)Lclover/com/atlassian/extras/api/Partner;organisation.Lclover/com/atlassian/extras/api/Organisation;contactsLjava/util/Collection;ALjava/util/Collection<Lclover/com/atlassian/extras/api/Contact;>;creationDateLjava/util/Date;purchaseDatemaximumNumberOfUsers
```

```
expiryDategracePeriodEndDatemaintenanceExpiryDatesupportEntitlementNumber
```

```
evaluationZsubscriptionlicenseType-Lclover/com/atlassian/extras/api/LicenseType;
```

```
properties;Lclover/com/atlassian/extras/common/util/LicenseProperties;<init>g(Lclover/com/atlassian/extras/api/Pr
```

```

oduct;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V()V24
5java/lang/String8valueOf(I)Ljava/lang/String;;
9<9clover/com/atlassian/extras/common/util/LicenseProperties>getProperty8(Ljava/lang/String;Ljava/lang/String;)
Ljava/lang/String;@A?Bjava/lang/IntegerD'(Ljava/lang/String;)Ljava/lang/Integer;:F
EGintValue()III
EK MDDescriptionO&(Ljava/lang/String;)Ljava/lang/String;@Q?R T V
EvaluationXjava/lang/BooleanZ'(Ljava/lang/String;)Ljava/lang/Boolean;:\
[]booleanValue()Z_`
[a+, cSubscription-, gServerIDi k
getPartnerf(Lclover/com/atlassian/extras/common/util/LicenseProperties;)Lclover/com/atlassian/extras/api/Partner;
mn
o qOrganisations(Ljava/lang/String;)V2u
v xgetContactsS(Lclover/com/atlassian/extras/common/util/LicenseProperties;)Ljava/util/Collection;z{
|!
~CreationDate=clover/com/atlassian/extras/common/LicensePropertiesConstantsDEFAULT_CREATION_DATES$
getDate4(Ljava/lang/String;Ljava/util/Date;)Ljava/util/Date;?# $ PurchaseDate% $
LicenseExpiryDateDEFAULT_EXPIRY_DATES $ $
getGracePeriodEndDate](Lclover/com/atlassian/extras/common/util/LicenseProperties;Ljava/util/Date;)Ljava/util/D
ate;
($ MaintenanceExpiryDate)$ SEN*
NumberOfUsersgetInt(Ljava/lang/String;I)I?&
LicenseTypeName@clover/com/atlassian/extras/common/LicenseTypeAndEditionResolvergetLicenseTypeA(Ljava
/lang/String;)Lclover/com/atlassian/extras/api/LicenseType;
./ 01 this8Lclover/com/atlassian/extras/core/DefaultProductLicense;GracePeriodjava/util/DategetTime(J
(J)V2
gracePeriod
getProduct+(Lclover/com/atlassian/extras/api/Product;getServerId()Ljava/lang/String;+(Lclover/com/atlassian/extr
as/api/Partner;getOrganisation0()Lclover/com/atlassian/extras/api/Organisation;(Ljava/util/Collection;getCreationD
ate()Ljava/util/Date;getPurchaseDate
getExpiryDategetNumberOfDaysBeforeExpirygetDaysBeforeDate(Ljava/util/Date;)I
isExpired
5 compareTo
&getNumberOfDaysBeforeGracePeriodExpiryisWithinGracePeriod`
isGracePeriodExpired`
getMaintenanceExpiryDate&getNumberOfDaysBeforeMaintenanceExpiryisMaintenanceExpiredgetSupportEntitle
mentNumbergetMaximumNumberOfUsersisUnlimitedNumberOfUsersisEvaluationisSubscriptionnamejava/lang/Sy
stemcurrentTimeMillis
datePartnerName
vpartnerNameContactEMailContactName'(Ljava/lang/String;Ljava/lang/String;)V2
java/util/Collections
singletonList$(Ljava/lang/Object;)Ljava/util/List;

EMPTY_LISTLjava/util/List;
contactEmailcontactNamegetLicenseVersiongetDescription()/Lclover/com/atlassian/extras/api/LicenseType;
ConstantValue
SignatureCodeLocalVariableTableLineNumberTableC(Ljava/util/Collection<Lclover/com/atlassian/extras/api/Cont
act;>;~(Lclover/com/atlassian/extras/common/util/LicenseProperties;)Ljava/util/Collection<Lclover/com/atlassian/e
xtras/api/Contact;>;

```

SourceFileInnerClasses! !"#%\$&'(\$)\$*+,-
./0123*6*,7=CHLN*,PSU*+W*,YS^bd*,fS^bh*,jSl*,pr*Y,tSwy*,}* ,** ,** ,** ,** ,S* ,* ,S* ,
01RBCD&E+F=GOH[IcJvK~LMOPRSTUVWw#,+>Y,ia*##01#"\$[_`/*We/*ljm/*ro/*ytz/*y9Y*~9Y*D*Y*JE***
`H**YD*Y*JE***
`>***`H**YD*Y*JE***
`H**Y/*J/*`8*`/*d`/*h@Q?`*+SB+em\$
mnR*SL+Y+01

z{y+*SL*SM+, Y,+ +01 "
'J/*N;
/*U@/*E

00clover/com/atlassian/extras/api/AtlassianLicensejava/lang/ObjectAtlassianLicense.javaagetProducLicenses()Ljava/
util/Collection;getProductLicensesgetProductLicense[(Lclover/com/atlassian/extras/api/Product;)Lclover/com/atlass
ian/extras/api/ProductLicense;
Deprecated SignatureJ()Ljava/util/Collection<Lclover/com/atlassian/extras/api/ProductLicense;>;
SourceFile

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical

transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable

by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use,

reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

```
0+clover/com/atlassian/license/LicenseManager.java/lang/ObjectLicenseManager.java1 clover/com/atlassian/extras/c
ommon/log/Logger$Log-
clover/com/atlassian/extras/common/log/LoggerLoglog3Lclover/com/atlassian/extras/common/log/Logger$Log;lice
nseListL.java/util/Map;licenseConfigurationslicenseManager-
Lclover/com/atlassian/license/LicenseManager;1class$clover$com$atlassian$license$LicenseManagerL.java/lang/Cl
ass;<init>()V
java/util/HashMap
```

```
thisgetInstance()/Lclover/com/atlassian/license/LicenseManager; "
addLicenseConfigurationr(L.java/lang/String;Lclover/com/atlassian/license/LicenseTypeStore;Lclover/com/atlassian
/license/LicenseRegistry;)V1clover/com/atlassian/license/LicenseConfiguration` (Lclover/com/atlassian/license/Lice
nseRegistry;Lclover/com/atlassian/license/LicenseTypeStore;)V)
(*
java/util/Map.put8(L.java/lang/Object;L.java/lang/Object;)L.java/lang/Object;./-
0applicationNameL.java/lang/String;licenseTypeStore/Lclover/com/atlassian/license/LicenseTypeStore;licenseRegis
try.Lclover/com/atlassian/license/LicenseRegistry;licenseConfiguration3Lclover/com/atlassian/license/LicenseConfi
guration;getLicenseRegistryB(L.java/lang/String;)Lclover/com/atlassian/license/LicenseRegistry;getLicenseConfigu
rationG(L.java/lang/String;)Lclover/com/atlassian/license/LicenseConfiguration;<=
>0()Lclover/com/atlassian/license/LicenseRegistry;:@
(AgetLicenseTypeStoreC(L.java/lang/String;)Lclover/com/atlassian/license/LicenseTypeStore;1()Lclover/com/atlass
ian/license/LicenseTypeStore;CE
```

```

(Fget&(Ljava/lang/Object;)Ljava/lang/Object;HI-Java/lang/RuntimeExceptionLjava/lang/StringBufferN
O&No LicenseConfiguration found for key Qappend,(Ljava/lang/String;)Ljava/lang/StringBuffer;ST
OUtoString()Ljava/lang/String;WX
OY(Ljava/lang/String;)V[
M\lookupLicenseTypeStorehasValidLicense(Ljava/lang/String;)Z
getLicense:(Ljava/lang/String;)Lclover/com/atlassian/license/License;ab
c$clover/com/atlassian/license/Licensee isExpired()Zghfi
licenseKey-clover/com/atlassian/license/LicenseExceptionLjava/lang/ExceptionnisEmptyph-
qcontainsKey(Ljava/lang/Object;)Zst-u w>There is no License Configuration defined for the application
y.{error(Ljava/lang/Object;)V}~,clover/com/atlassian/license/LicenseRegistrygetLicenseMessageXgetLicenseHash
X?There is no license string or hash defined for the application
info~(clover/com/atlassian/license/LicensePair(Ljava/lang/String;Ljava/lang/String;)V
Could not build a license
pair*(Ljava/lang/Object;Ljava/lang/Throwable;)V}3clover/com/atlassian/license/decoder/LicenseDecoderd(Lclover
/com/atlassian/license/LicensePair;Ljava/lang/String;)Lclover/com/atlassian/license/License;a
Exception getting license: ,(Ljava/lang/Object;)Ljava/lang/StringBuffer;S
Oe/Lclover/com/atlassian/license/LicenseException;license&Lclover/com/atlassian/license/License;
licenseStrhashpair*Lclover/com/atlassian/license/LicensePair;Ljava/lang/Exception;
setLicenseL(Ljava/lang/String;Ljava/lang/String;)Lclover/com/atlassian/license/License;
\isValid?(Lclover/com/atlassian/license/LicensePair;Ljava/lang/String;)Z
?(Lclover/com/atlassian/license/LicensePair;Ljava/lang/String;)V
qAttempt to set invalid license. Ensure that you are calling setLicense(license, appName) - not (appName,
license)warnupdatedLicenseremoveI-()IBa
)clover/com/atlassian/license/LicenseUtils getString((B)Ljava/lang/String;
setLicenseMessage[getHash
setLicenseHash[getLicensePair>(Ljava/lang/String;)Lclover/com/atlassian/license/LicensePair; Couldn't get the
LicensePair ...getLicenseTypeP(Ljava/lang/String;Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;-
clover/com/atlassian/license/LicenseTypeStore>(Ljava/lang/String;)Lclover/com/atlassian/license/LicenseType;
licenseTypeString?(Ljava/lang/String;I)Lclover/com/atlassian/license/LicenseType;-
(I)Lclover/com/atlassian/license/LicenseType;
licenseTypeCodeIresetclear-clearLicenseConfigurations
removeLicense<clinit> getClass()Ljava/lang/Class;
java/lang/ClassGetComponentType
F(Ljava/lang/Class;)Lclover/com/atlassian/extras/common/log/Logger$Log;
 SyntheticCodeLocalVariableTableLineNumberTable
Exceptions
SourceFileInnerClasses!
Q**Y*Y !"# !4#
Y$##+-0%&s(Y-,+:*+1W423456789567;:= *+?B 23;CD= *+?G 23@<=y/*+K(M,MYOYPRV+VZ], //23!89EFH-
J^Dc*+K(M,,G 2389TUW[_`O*+d*+djk3bab
*r*+vM*+K(N-%xOYPzV+V|VZ-B:::%xOYPV+V|VZ:Y::x+M*+,1W MxOYPV,Z,*+KfmNoOooof
)89Ut67^k3gb3323bgkl)m-oMpOrUs^tgVqxy|3NY+N-,.-, *-:,x"#o>%3333231& #%1 @+>*,W*,K(N-
B:++4"89#67@ @ @23#1?m5*+K(M,BNY--Mx,&'m48967(
5523'(3c*+K(N-G,*233 89
mc*+K(N-G*23 89
mM**# 8
*

```

[D*+W23

5YWYx

=====
=====
Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from 'com.keypoint/org.jfree' to 'clover.com.keypoint/clover.org.jfree'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====
=====

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it

does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the

Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility

is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work

under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is

normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further

restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the

ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<http://fsf.org/>>
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

- a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

- a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
- b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
- d) Do one of the following:
 - 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
- b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version

published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

```
00clover/com/atlassian/extras/api/jira/JiraLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicense3cl
over/com/atlassian/extras/api/LicenseEditionAwareJiraLicense.java
SourceFile
```

```
0?-clover/com/atlassian/license/util/StringUtilsjava/lang/ObjectStringUtils.java<init>()V
this/Lclover/com/atlassian/license/util/StringUtils;
replaceAll(Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;)Ljava/lang/String;java/lang/Stringequals(Ljava/l
ang/Object;)Z
java/lang/StringBufferlength()I
(I)V
indexOf(Ljava/lang/String;)I
! substring(II)Ljava/lang/String;#$
%append,(Ljava/lang/String;)Ljava/lang/StringBuffer;'(
)(I)Ljava/lang/String;#+
,toString()Ljava/lang/String;./
0iIstrLjava/lang/String;
oldPattern
newPattern remainderbufLjava/lang/StringBuffer;CodeLocalVariableTableLineNumberTable
SourceFile!/* <
=
;i*+**NY*h:-+"6&-&*W,*W-+`-N
-*W1<>-323i45i65i75R85&C9:=6
&-3@GV]` c!>
BSD License
```

Copyright (c) 2000-2006, www.hamcrest.org
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Hamcrest nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written

permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

```
0>clover/com/atlassian/extras/core/fisheye/DefaultFisheyeLicense6clover/com/atlassian/extras/core/DefaultProduct
License6clover/com/atlassian/extras/api/fisheye/FisheyeLicenseDefaultFisheyeLicense.java<init>g(Lclover/com/atl
assian/extras/api/Product;Lclover/com/atlassian/extras/common/util/LicenseProperties;)V
```

```
this@Lclover/com/atlassian/extras/core/fisheye/DefaultFisheyeLicense;product)Lclover/com/atlassian/extras/api/Pr
oduct;licenseProperties;Lclover/com/atlassian/extras/common/util/LicenseProperties;CodeLocalVariableTableLine
NumberTable
SourceFile I*+,
```

=====

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from 'org.apache.velocity' to 'clover.org.apache.velocity'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by

the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained

within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be

liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.

You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

=====
=====

Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package name from 'com.google.json' to 'clover.com.google.json'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover. No source code of the original library was modified.

=====
=====

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object

form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a

file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

```
OGclover/com/atlassian/license/applications/bamboo/BambooLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreBambooLicenseTypeStore.javaBAMBOO_BASIC_EVALUATION*
Lclover/com/atlassian/license/LicenseType;BAMBOO_BASIC_ACADEMICBAMBOO_BASIC_DEMONSTRATI
ONBAMBOO_BASIC_DEVELOPERBAMBOO_BASIC_COMMUNITYBAMBOO_BASIC_OPEN_SOURCEB
AMBOO_BASIC_COMMERCIAL_SERVERBAMBOO_EVALUATIONBAMBOO_ACADEMICBAMBOO_DE
MONSTRATIONBAMBOO_DEVELOPERBAMBOO_COMMUNITYBAMBOO_OPEN_SOURCEBAMBOO_C
OMMERCIAL_SERVERBAMBOO_PROFESSIONAL_EVALUATIONBAMBOO_PROFESSIONAL_ACADEM
IC!BAMBOO_PROFESSIONAL_DEMONSTRATIONBAMBOO_PROFESSIONAL_DEVELOPERBAMBOO_P
ROFESSIONAL_COMMUNITYBAMBOO_PROFESSIONAL_OPEN_SOURCE%BAMBOO_PROFESSIONAL
_COMMERCIAL_SERVERBAMBOO_ENTERPRISE_EVALUATIONBAMBOO_ENTERPRISE_ACADEMICB
AMBOO_ENTERPRISE_DEMONSTRATIONBAMBOO_ENTERPRISE_DEVELOPERBAMBOO_ENTERPRIS
E_COMMUNITYBAMBOO_ENTERPRISE_OPEN_SOURCE#BAMBOO_ENTERPRISE_COMMERCIAL_SER
VERBAMBOO_TEMP_2_0_BETApublicKeyFileNameLjava/lang/String;privateKeyFileName<init>()V(
)applicationLicenseTypesLjava/util/ArrayList;+ , - /java/util/ArrayListIadd(Ljava/lang/Object;)Z34
25 7 9 ; = ? A C E G
I K M
O Q S U W Y [ ] _ a c e g ! i " k #
mthisILclover/com/atlassian/license/applications/bamboo/BambooLicenseTypeStore;getAllLicenses()Ljava/util/Col
lection;getPublicKeyFileName()Ljava/lang/String;$% ugetPrivateKeyFileName&%
x<clinit>/clover/com/atlassian/license/DefaultLicenseType{ Bamboo Basic:
Evaluation}+clover/com/atlassian/extras/api/LicenseType
COMMERCIAL-Lclover/com/atlassian/extras/api/LicenseType; namet
.clover/com/atlassian/extras/api/LicenseEditionBASIC0Lclover/com/atlassian/extras/api/LicenseEdition;
Z(ILjava/lang/String;ZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)V'
|Bamboo Basic: AcademicACADEMIC Bamboo Basic: Demonstration
DEMONSTRATION Bamboo Basic: Developer DEVELOPER Bamboo Basic: Community COMMUNITY Bamboo
Basic: Open SourceOPEN_SOURCE Bamboo Basic: Commercial ServerBamboo Standard: EvaluationSTANDARD
Bamboo Standard: AcademicBamboo Standard: DemonstrationBamboo Standard: DeveloperBamboo Standard:
CommunityBamboo Standard: Open Source"Bamboo Standard: Commercial ServerBamboo Professional:
EvaluationPROFESSIONAL Bamboo Professional: Academic"Bamboo Professional: DemonstrationBamboo
Professional: DeveloperBamboo Professional: Community Bamboo Professional: Open Source&Bamboo
```

Professional: Commercial ServerBamboo Enterprise: Evaluation
ENTERPRISE Bamboo Enterprise: Academic Bamboo Enterprise: DemonstrationBamboo Enterprise:
DeveloperBamboo Enterprise: CommunityBamboo Enterprise: Open Source\$Bamboo Enterprise: Commercial
ServerBamboo: 2.0 betaTESTING
\$clover/com/atlassian/bamboo/leaf.keybamboo/bamboo.byteCodeLocalVariableTableLineNumberTable
SourceFile!

!"#\$%
&%'(D***.06W*.86W*.:6W*.<6W*.>6W*.@6W*.B6W*.D6W*.F6W*.H6W*.J6W*.L6W*.N6W*.P6W*.R6W*.
T6W*.V6W*.X6W*.Z6W*.\6W*.^6W*.`6W*.b6W*.d6W*.f6W*.h6W*.j6W*.l6W*.n6WDop~79:;<0=;>F?QA\
BgCrD}EFGHIJKLMNOQRSTU"V-
W8YcZqr/*op^st.vopcwt.yophz(|Y~F|YD|YH|YJ|YL|YN|YP|Y8|Y0|Y:|Y<|Y>|Y@|YB|YT|YR|YV|YX|YZ|Y|Y^\
Yb|Y`|Yd|Yf|Yh|Yj|Yl|Ynv~
4Nh8RI!"#\$%("<V*p+,-.134

=====
=====
Modified by Atlassian

The binary file of the original library has been modified by Atlassian in such way that classes have changed their package names from the 'antlr.*' to the 'clover.antlr.*'. This was necessary to avoid potential name conflicts during instrumentation of a code using the original library when using Clover.
No source code of the original library was modified.

=====
=====
SOFTWARE RIGHTS

ANTLR 1989-2006 Developed by Terence Parr
Partially supported by University of San Francisco & jGuru.com

We reserve no legal rights to the ANTLR--it is fully in the public domain. An individual or company may do whatever they wish with source code distributed with ANTLR or the code generated by ANTLR, including the incorporation of ANTLR, or its output, into commercial software.

We encourage users to develop software with ANTLR. However, we do ask that credit is given to us for developing ANTLR. By "credit", we mean that if you use ANTLR or incorporate any source code into one of your programs (commercial product, research project, or otherwise) that you acknowledge this fact somewhere in the documentation, research report, etc... If you like ANTLR and have developed a nice tool with the output, please mention that you developed it using ANTLR. In addition, we ask that the headers remain intact in our source code. As long as these guidelines are kept, we expect to continue enhancing this system and expect to make other tools available as they are

completed.

The primary ANTLR guy:

Terence Parr
parrt@cs.usfca.edu
parrt@antlr.org

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

Preamble

The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
Licenses are intended to guarantee your freedom to share and change
free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some
specially designated software packages--typically libraries--of the
Free Software Foundation and other authors who decide to use it. You
can use it too, but we suggest you first think carefully about whether
this license or the ordinary General Public License is the better
strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use,
not price. Our General Public Licenses are designed to make sure that
you have the freedom to distribute copies of free software (and charge
for this service if you wish); that you receive source code or can get
it if you want it; that you can change the software and use pieces of
it in new free programs; and that you are informed that you can do
these things.

To protect your rights, we need to make restrictions that forbid
distributors to deny you these rights or to ask you to surrender these
rights. These restrictions translate to certain responsibilities for
you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis
or for a fee, you must give the recipients all the rights that we gave

you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to

encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means

all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any

application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the

copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot

use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not

excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

0

4clover/com/atlassian/extras/api/plugin/PluginLicensejava/lang/Object.clover/com/atlassian/extras/api/ProductLicensePluginLicense.java

SourceFile

0'clover/com/atlassian/license/SIDManagerjava/lang/ObjectSIDManager.javagenerateSID()Ljava/lang/String;isValidSID(Ljava/lang/String;)Z

SourceFile

0!Eclover/com/atlassian/extras/core/DefaultProductLicense\$DefaultContactjava/lang/Object'clover/com/atlassian/extras/api/ContactDefaultProductLicense.java6clover/com/atlassian/extras/core/DefaultProductLicenseDefaultContactnameLjava/lang/String;email<init>(Ljava/lang/String;Ljava/lang/String;)V()V

thisGLclover/com/atlassian/extras/core/DefaultProductLicense\$DefaultContact;getName()Ljava/lang/String;getEmailCodeLocalVariableTableLineNumberTable

SourceFileInnerClasses0

Y**+*,

)* +,/0/5

/*

*/

* CruiseControl, a Continuous Integration Toolkit
* Copyright (c) 2001-2003, ThoughtWorks, Inc.
* 651 W Washington Ave. Suite 500
* Chicago, IL 60661 USA
* All rights reserved.

* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions
* are met:

* + Redistributions of source code must retain the above copyright
* notice, this list of conditions and the following disclaimer.

* + Redistributions in binary form must reproduce the above
* copyright notice, this list of conditions and the following
* disclaimer in the documentation and/or other materials provided
* with the distribution.

* + Neither the name of ThoughtWorks, Inc., CruiseControl, nor the
* names of its contributors may be used to endorse or promote
* products derived from this software without specific prior
* written permission.

* THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
* "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
* LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
* A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR
* CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
* EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO,
* PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR
* PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF
* LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING
* NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
* SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

*/

0Oclover/com/atlassian/license/applications/confluence/ConfluenceLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreConfluenceLicenseTypeStore.javaACADEMIC*Lclover/com/atlassia
n/license/LicenseType;

EVALUATIONTESTINGHOSTED_EVALUATION
NON_PROFITFULL_LICENSEPERSONALSTARTERHOSTED COMMUNITYOPEN_SOURCE DEVELOPER
DEMONSTRATIONpublicKeyFileNameLjava/lang/String;-
clover/com/atlassian/confluence/page/Page.keyprivateKeyFileNameconfluence/confluence.byteAPPLICATION_N
AMECONF<init>()V

applicationLicenseTypesLjava/util/ArrayList;#" \$ &java/util/ArrayList(add(Ljava/lang/Object;)Z*+
, . 0

246

8: <> @ B

```

DthisQLclover/com/atlassian/license/applications/confluence/ConfluenceLicenseTypeStore;getAllLicenses()Ljava/util/Collection;getPublicKeyFileName()Ljava/lang/String;getPrivateKeyFileName<clinit>/clover/com/atlassian/license/DefaultLicenseTypeNConfluence: AcademicP+clover/com/atlassian/extras/api/LicenseTypeR-Lclover/com/atlassian/extras/api/LicenseType;T SUsernameWK
SX*(ILjava/lang/String;ZZLjava/lang/String;)VZ
O[Confluence: Evaluation]
COMMERCIAL_T S`Confluence: Testingb T Sd+(ILjava/lang/String;ZZZLjava/lang/String;)Vf
OgConfluence: Hosted EvaluationiT Sk$Confluence: Non-Profit / Open SourceiT SoConfluence: Commercial ServerqConfluence: Personal Servers
T SuConfluence: StarterwT SyConfluence: Commercial Hosted{ Confluence: Community}T SConfluence: Open SourceT SConfluence: DeveloperT SConfluence: DemonstrationT S
ConstantValueCodeLocalVariableTableLineNumberTable
SourceFile!

```

```

*!% '-W*%/-W*%1-W*%3-W*%5-W*%7-W*%9-W*%;-W*%=-W*%?-W*%A-W*%C-W*%E-WFG>
!"#%$0%;&F'Q(\)g*r+},-.HI/*%FG2JK-FG7LK-FG<Mo'OYQVY\OY
^aY\OY0ceYh1OY@jIY\3OYNnpY\5OYUraY\7OY`tvY\9OY0xzY\COY|lYh;OY~Y\=OY
Y\?OYY\AOY+Y\E6
,
CYo

```

Java Native Access project (JNA) is dual-licensed under 2 alternative Open Source/Free licenses: LGPL 2.1 or later and Apache License 2.0. (starting with JNA version 4.0.0).

You can freely decide which license you want to apply to the project.

You may obtain a copy of the LGPL License at:

<http://www.gnu.org/licenses/licenses.html>

A copy is also included in the downloadable source code package containing JNA, in file "LGPL2.1", under the same directory as this file.

You may obtain a copy of the Apache License at:

<http://www.apache.org/licenses/>

A copy is also included in the downloadable source code package containing JNA, in file "AL2.0", under the same directory as this file.

```

0tKclover/com/atlassian/license/applications/crucible/CrucibleLicenseTypeStore-
clover/com/atlassian/license/LicenseTypeStoreCrucibleLicenseTypeStore.javaCRUCIBLE_ACADEMIC*Lclover/c
om/atlassian/license/LicenseType;CRUCIBLE_COMMERCIALCRUCIBLE_COMMUNITYCRUCIBLE_EVALU
ATIONCRUCIBLE_OPEN_SOURCECRUCIBLE_DEVELOPERCRUCIBLE_STARTERCRUCIBLE_DEMONS

```

TRATIONpublicKeyFileNameLjava/lang/String;privateKeyFileName<init>()V
applicationLicenseTypesLjava/util/ArrayList; java/util/ArrayListadd(Ljava/lang/Object;)Z
" \$
& (*
,
.thisMLclover/com/atlassian/license/applications/crucible/CrucibleLicenseTypeStore;getAllLicenses()Ljava/util/Col
lection;getPublicKeyFileName()Ljava/lang/String; 6getPrivateKeyFileName
9<clinit>/clover/com/atlassian/license/DefaultLicenseType<Crucible:
Academic>+clover/com/atlassian/extras/api/LicenseType@ACADEMIC-
Lclover/com/atlassian/extras/api/LicenseType;BC ADnameF5
AG*(ILjava/lang/String;ZZLjava/lang/String;)VI
=JCrucible: CommercialL
COMMERCIALNC AOCrucible: CommunityQ COMMUNITYSC ATCrucible: EvaluationVCrucible: Open
SourceXOPEN_SOURCEZC A[Crucible: Developer] DEVELOPER_C A`Crucible: StarterbSTARTERdC
AeCrucible: Demonstrating
DEMONSTRATIONiC
Aj&clover/com/atlassian/crucible/leaf.keylcrucible/crucible.bytenCodeLocalVariableTableLineNumberTable
SourceFile!

p]**!W*#!W*%!W*!W*)!W*+!W*-*!W*/!Wq]01r*
%0;
F!Q"#23p/*q01r'45p.7q01r,85p.:q01r1;p=YL?EHK=YVMPHK#=Y`RUHK%=YjWPHK'=YtY\HK)=Y~^aHK+=Y
cfHK-=YhkHK/m7o:r*

.E\ss
Copyright (c) 2005 - 2009 Taras Puchko
All rights reserved.

Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions
are met:

1. Redistributions of source code must retain the above copyright
notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright
notice, this list of conditions and the following disclaimer in the
documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holders nor the names of its
contributors may be used to endorse or promote products derived from
this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS"
AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE
LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS

INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

```
0L/clover/com/atlassian/license/DefaultLicenseTypejava/lang/Object(clover/com/atlassian/license/LicenseTypeDefaultLicenseType.java:typeIdescriptionLjava/lang/String;isEvaluationZrequiresUserLimitexpiresnewLicenseTypeNameedition0Lclover/com/atlassian/extras/api/LicenseEdition;<init>*(ILjava/lang/String;ZZLjava/lang/String;)V[(ILjava/lang/String;ZZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)Vthis1Lclover/com/atlassian/license/DefaultLicenseType;Z(ILjava/lang/String;ZZLjava/lang/String;Lclover/com/atlassian/extras/api/LicenseEdition;)V+(ILjava/lang/String;ZZZLjava/lang/String;)V()V
```

!

#

%

') +

```
getEdition2(Lclover/com/atlassian/extras/api/LicenseEdition;getNewLicenseTypeName()Ljava/lang/String;hashCode()Ljava/lang/String312
```

```
45getTypetoStringgetDescription90
```

```
:isEvaluationLicenseType()ZgetNiceNameequals(Ljava/lang/Object;)Z72
```

```
AAlicense*Lclover/com/atlassian/license/LicenseType;oLjava/lang/Object;CodeLocalVariableTableLineNumberTable
```

```
SourceFile!
```

Hn*,I>

J

Hy*,IH

J

Hy*,IH

J

```
!H ,** * ,*$*&*(***,IR,, ,
```

,

,

,

```
.,J& $% &'()*%++,-.H/*,IJ0/0H/**IJ512H7
```

```
* *"6 I
```

```
J:72H/* IJ?80H/*;IJD90H/*"IJI<=H/*$IJN=H/*(IJS=H/*&IJX>0H/*"IJ`?@Hk++M*B,CI DEFGJeghjmK
```

```
0$clover/com/atlassian/license/Licensejava/lang/ObjectLicense.java:getDateCreated()Ljava/util/Date;getDatePurchaseDategetOrganisation()Ljava/lang/String;getLicenseType,()Lclover/com/atlassian/license/LicenseType; isExpired()Z
```

getExpiryDatetoStringisLicenseLevel(Ljava/util/Collection;)ZgetUsers()IgetPartnerNamegetLicenseIdgetPermitted
ClusteredNodesgetLicenseDuration()JgetSupportEntitlementNumber
SourceFile

1.107 babel-preset-es2016 6.24.1

1.108 jsreport-pdf-utils 0.5.0

1.108.1 Available under license :

MIT License

Copyright (c) 2017 jsreport

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.109 classnames 2.2.5

1.109.1 Available under license :

The MIT License (MIT)

Copyright (c) 2017 Jed Watson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.110 commons-compress 1.16.1

1.110.1 Available under license :

Apache Commons Compress
Copyright 2002-2018 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<https://www.apache.org/>).

The files in the package org.apache.commons.compress.archivers.sevenz were derived from the LZMA SDK, version 9.20 (C/ and CPP/7zip/), which has been placed in the public domain:

"LZMA SDK is placed in the public domain." (<http://www.7-zip.org/sdk.html>)

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of,

publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution

notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing

the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.111 babel-plugin-transform-regenerator

6.26.0

1.112 babel-plugin-transform-class-properties

6.24.1

1.113 akka-http-jackson 10.0.9

1.113.1 Available under license :

Copyright 2015 Heiko Seeberger

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or

Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work

or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work

by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.114 chai-http 3.0.0

1.115 csv-parse 2.0.0

1.115.1 Available under license :

Software License Agreement (BSD License)

=====

Copyright (c) 2011, SARL Adaltas.

All rights reserved.

Redistribution and use of this software in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of SARL Adaltas nor the names of its contributors may be used to endorse or promote products

derived from this software without specific prior written permission of the SARL Adaltas.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.116 npm-run-all 4.0.2

1.116.1 Available under license :

The MIT License (MIT)

Copyright (c) 2015 Toru Nagashima

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.117 cookie-parser 1.4.3

1.117.1 Available under license :

(The MIT License)

Copyright (c) 2014 TJ Holowaychuk <tj@vision-media.ca>

Copyright (c) 2015 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.118 react-scrollspy 3.3.4

1.119 redux-mock-store 1.5.1

1.119.1 Available under license :

The MIT License (MIT)

Copyright (c) 2017 Arnaud Benard

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.120 babel-preset-react 6.24.1

1.121 model-mapper 1.1.0

1.121.1 Available under license :

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate

as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify

the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

1.122 express 4.15.4

1.122.1 Available under license :

(The MIT License)

Copyright (c) 2009-2014 TJ Holowaychuk <tj@vision-media.ca>

Copyright (c) 2013-2014 Roman Shtylman <shtylman+expressjs@gmail.com>

Copyright (c) 2014-2015 Douglas Christopher Wilson <doug@somethingdoug.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.123 babel-eslint 8.2.2

1.123.1 Available under license :

Copyright (c) 2014-2016 Sebastian McKenzie <sebmck@gmail.com>

MIT License

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND

NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.124 fscreen 1.0.2

1.124.1 Available under license :

The MIT License (MIT)

Copyright (c) 2017 Rafael Pedicini

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.125 react-input-autosize 2.2.1

1.125.1 Available under license :

The MIT License (MIT)

Copyright (c) 2018 Jed Watson

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.126 webpack-merge 4.1.2

1.126.1 Available under license :

Copyright (c) 2015 Juho Vepsalainen

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.127 reselect 3.0.1

1.128 json-path 0.11.2

1.128.1 Available under license :

Copyright (c) 2014-2016 David Chester <david@fmail.co.uk>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.129 api-spec-converter 2.6.0

1.129.1 Available under license :

core-js@2.5.1

MIT

Copyright (c) 2014-2017 Denis Pushkarev

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

webpack@3.6.0

MIT

Copyright JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

zone.js@0.8.18
MIT
The MIT License

Copyright (c) 2016 Google, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

@angular/core@4.4.5
MIT
MIT

@angular/router@4.4.5
MIT
MIT

@angular/http@4.4.5
MIT
MIT

@angular/forms@4.4.5

MIT

MIT

@angular/platform-browser@4.4.5

MIT

MIT

@angular/common@4.4.5

MIT

MIT

babel-polyfill@6.26.0

MIT

MIT

core-js@2.5.1

MIT

Copyright (c) 2014-2017 Denis Pushkarev

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

webpack@3.6.0

MIT

Copyright JS Foundation and other contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

zone.js@0.8.18
MIT
The MIT License

Copyright (c) 2016 Google, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

@angular/core@4.4.5
MIT
MIT

@angular/http@4.4.5
MIT
MIT

file-saver@1.3.3
MIT
The MIT License

Copyright 2016 [Eli Grey][1].

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

[1]: <http://eligrey.com>

@angular/forms@4.4.5

MIT

MIT

@angular/platform-browser@4.4.5

MIT

MIT

@angular/common@4.4.5

MIT

MIT

(MIT License)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the 'Software'), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED 'AS IS', WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT,

TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.130 sass-loader 6.0.6

1.131 nyc 11.3.0

1.131.1 Available under license :

ISC License

Copyright (c) 2015, Contributors

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

1.132 eslint-plugin-import 2.8.0

1.132.1 Available under license :

MIT License

SPDX short identifier: MIT

Copyright <YEAR> <COPYRIGHT HOLDER>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A

PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.133 node-sass 4.5.3

1.133.1 Available under license :

Copyright (C) 2012-2016 by the Sass Open Source Foundation

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The following files in the spec were taken from the original Ruby Sass project which is copyright Hampton Catlin, Nathan Weizenbaum, and Chris Eppstein and under the same license.

Copyright (c) 2013-2016 Andrew Nesbitt

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,

EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (C) 2012 by Hampton Catlin

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

The following files in the spec were taken from the original Ruby Sass project which is copyright Hampton Catlin, Nathan Weizenbaum, and Chris Eppstein and under the same license.

1.134 commons-lang3 3.6

1.134.1 Available under license :

Apache Commons Lang
Copyright 2001-2017 The Apache Software Foundation

This product includes software developed at
The Apache Software Foundation (<http://www.apache.org/>).

This product includes software from the Spring Framework,
under the Apache License 2.0 (see: `StringUtils.containsWhitespace()`)

Apache License
Version 2.0, January 2004
<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner

or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and

- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions

of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.135 swagger-jaxrs2 2.0.7

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

©2023 Cisco Systems, Inc. All rights reserved.