

Experiment 4

Static Code analysis in SonarQube

- 1) First we need to install SonarQube in our device by downloading and unzipping it.
- 2) Open the sonarqube folder and run the sonarqube executable on port 9000.

```
wrapper --> Wrapper Started as Console
Launching a JVM...
wrapper (Version 3.2.3) http://wrapper.tanukisoftware.org
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2020-10-09 13:10:59 INFO app[[[o.s.a.AppFileSystem] Cleaning or creating temp directory D:\college\CI-CD\sonarqube-8.4.1.35646\temp
2020-10-09 13:10:59 INFO app[[[o.s.a.es.Elasticsearch] Elasticsearch listening on /127.0.0.1:9001
2020-10-09 13:10:59 INFO app[[[o.s.a.ProcessLauncherImpl] Launch process[[key='es', ipcIndex=1, logFilenamePrefix=es]] from [D:\college\CI-CD\sonarqube-8.4.1.35646\elasticsearch]: C:\Program Files\
aljdk-11.0.8\bin\java -XX:+UseConcMarkSweepGC -XX:CMSInitiatingOccupancyFraction=75 -XX:+UseCMSInitiatingOccupancyOnly -Des.networkaddress.cache.ttl=10 -XX:+AlwaysPre
ch -Xss1m -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djna.nosys=true -XX:-OmitStackTraceInFastThrow -Dio.netty.noUnsafe=true -Dio.netty.recycler.maxCapacityPerThread=
0log4j.shutdownhookEnabled=false -Dlog4j2.disable.jmx=true -Djava.io.tmpdir=D:\college\CI-CD\sonarqube-8.4.1.35646\temp -XX:ErrorFile=./logs/es_hs_err_pid%p.log -Xms512m -Xmx512m -XX:+HeapDumpOnOutOfMemoryEr
r -Delasticsearch -Des.path.home=D:\college\CI-CD\sonarqube-8.4.1.35646\elasticsearch -Des.path.conf=D:\college\CI-CD\sonarqube-8.4.1.35646\temp\conf\es -cp lib/* org.elasticsearch.bootstrap.Elasticsearch
2020-10-09 13:11:27 INFO app[[[o.s.a.ProcessLauncherImpl] Launch process[[key='web', ipcIndex=2, logFilenamePrefix=web]] from [D:\college\CI-CD\sonarqube-8.4.1.35646]: C:\Program Files\Java\jdk-11.0.8\bin\java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=D:\college\CI-CD\sonarqube-8.4.1.35646\temp -XX:-OmitStackTraceInFastThrow --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java
base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED -Xms512m -Xmx512m -XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost|127.*|[:
] -cp ./lib/common/*;D:\college\CI-CD\sonarqube-8.4.1.35646\lib\jdbc\h2-1.4.199.jar org.sonar.server.app.WebServer D:\college\CI-CD\sonarqube-8.4.1.35646\temp\sq-process-2017548541812039090\properties
2020-10-09 13:12:05 INFO app[[[o.s.a.SchedulerImpl] Process[web] is up
2020-10-09 13:12:05 INFO app[[[o.s.a.ProcessLauncherImpl] Launch process[[key='ce', ipcIndex=3, logFilenamePrefix=ce]] from [D:\college\CI-CD\sonarqube-8.4.1.35646]: C:\Program Files\Java\jdk-11.0.8\bin\java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=D:\college\CI-CD\sonarqube-8.4.1.35646\temp -XX:-OmitStackTraceInFastThrow --add-opens=java.base/java.util=ALL-UNNAMED -Xms512m -Xmx512m
-XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost|127.*|[:1] -cp ./lib/common/*;D:\college\CI-CD\sonarqube-8.4.1.35646\lib\jdbc\h2-1.4.199.jar org.sonar.ce.app.CeServer D:\college\CI-CD\sonarq
8.4.1.35646\temp\sq-process1538997197110710411\properties
2020-10-09 13:12:26 INFO app[[[o.s.a.SchedulerImpl] Process[ce] is up
2020-10-09 13:12:26 INFO app[[[o.s.a.SchedulerImpl] SonarQube is up
```

- 3) Add the maven project to sonarqube using the command specified.
mvn clean install sonar:sonar -Dsonar.host.url=http://localhost:9000 -Dsonar.mode=publish

```
-----< com.mycompany.app:my-app >-----
Building my-app 1.0-SNAPSHOT
-----[ jar ]-----

--- maven-clean-plugin:3.1.0:clean (default-clean) @ my-app ---
Deleting D:\college\CI-CD\git\Exp2\my-app\target

--- maven-resources-plugin:3.0.2:resources (default-resources) @ my-app ---
Using 'UTF-8' encoding to copy filtered resources.
skip non existing resourceDirectory D:\college\CI-CD\git\Exp2\my-app\src\main\resources

--- maven-compiler-plugin:3.8.0:compile (default-compile) @ my-app ---
Changes detected - recompiling the module!
Compiling 1 source file to D:\college\CI-CD\git\Exp2\my-app\target\classes

--- maven-resources-plugin:3.0.2:testResources (default-testResources) @ my-app ---
Using 'UTF-8' encoding to copy filtered resources.
skip non existing resourceDirectory D:\college\CI-CD\git\Exp2\my-app\src\test\resources

--- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ my-app ---
Changes detected - recompiling the module!
Compiling 1 source file to D:\college\CI-CD\git\Exp2\my-app\target\test-classes

--- maven-surefire-plugin:2.22.1:test (default-test) @ my-app ---

TESTS
-----
Running com.mycompany.app.AppTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.042 s - in com.mycompany.app.AppTest
Results:
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

--- maven-jar-plugin:3.0.2:jar (default-jar) @ my-app ---
Building com.mycompany.app:my-app-1.0-SNAPSHOT.jar
-----[ jar ]-----
```

4) Run the maven goals which we want to run.

5) Access the project on the sonarqube webAPI.

Perspective: Sort by: 1 projects

☆ my-app Passed

Last analysis: October 4, 2020, 5:16 PM

0 A
Bugs

0 A
Vulnerabilities

— A
Hotspots Reviewed

2 A
Code Smells

0.0%
Coverage

0.0%
Duplications

73 XS
XML, Java

1 of 1 shown