

Expeiment-3

Using Static Code analysis Tool “SONARQUBE”

STEP-1

For analysis you need to download a Software “SonarScanner”

Go to Link <https://docs.sonarqube.org/latest/analysis/scan/sonarscanner/>

STEP-2

Click on which system you want to download the software (I am doing it on [Windows 64-bit](#))

The screenshot shows the SonarScanner download page. On the left is a sidebar with the SonarQube logo and a search bar. The main content area is titled 'SonarScanner' and shows version 4.4, released on 2020-07-03. It lists download links for Linux 64-bit, Windows 64-bit (highlighted in blue), Mac OS X 64-bit, and Docker. Below the links, it states 'The SonarScanner is the scanner to use when there is no specific scanner for your build system.' A section titled 'Configuring your project' explains that a configuration file named 'sonar-project.properties' should be created in the project's root directory. A code block shows the content of this file, including a unique project key and optional properties. On the right side, there is a 'On this page' sidebar with links to 'Configuring your project', 'Running SonarScanner from the zip file', 'Running SonarScanner from the Docker image', 'Sample Projects', 'Alternatives to sonar-project properties', 'Alternate Analysis Directory', 'Advanced Docker Configuration', and 'Troubleshooting'. At the bottom right, there is a watermark that says 'Activate Windows Go to Settings to activate Windows'.

STEP-3

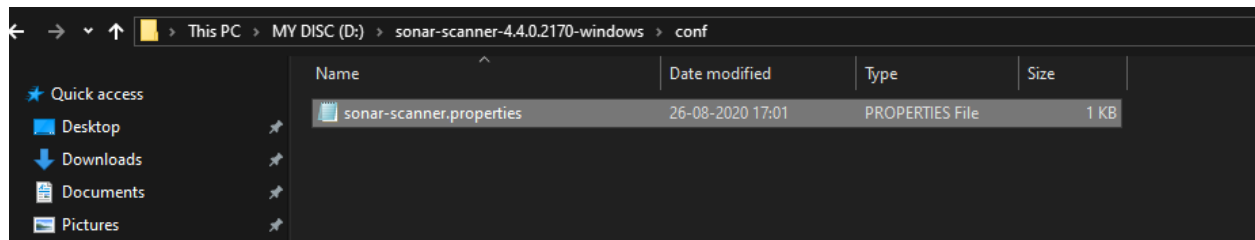
Extract the file

STEP-4

Make a random project on eclipse which will be used for analysis.

STEP-5

Go to SonarScanner configuration folder and edit sonar-scanner.properties



```
*sonar-scanner.properties - Notepad
File Edit Format View Help
#Configure here general information about the environment, such as
#No information about specific project should appear here

#----- Default SonarQube server
#sonar.host.url=http://localhost:9000

#----- Default source code encoding
#sonar.sourceEncoding=UTF-8

//add|
```

STEP-6

Now Open your COMMAND PROMPT and go to your project location and run command

“sonar-scanner.bat”

```

C:\WINDOWS\system32\cmd C:\Users\Dell\eclipse-workspace\SonarTutorial\src
C:\Users\Dell\eclipse-workspace\SonarTutorial\src>sonar-scanner.bat
INFO: Scanner configuration file: D:\sonar-scanner-4.4.0.2170-windows\bin\..\conf\sonar-scanner.properties
INFO: Project root configuration file: NONE
INFO: SonarScanner 4.4.0.2170
INFO: Java 11.0.3 AdoptOpenJDK (64-bit)
INFO: Windows 10 10.0 amd64
INFO: User cache: C:\Users\Dell\.sonar\cache
INFO: Scanner configuration file: D:\sonar-scanner-4.4.0.2170-windows\bin\..\conf\sonar-scanner.properties
INFO: Project root configuration file: NONE
INFO: Analyzing on SonarQube server 8.4.1
INFO: Default locale: "en_US", source code encoding: "windows-1252" (analysis is platform dependent)
INFO: Load global settings
INFO: Load global settings (done) | time=94ms
INFO: Server id: BFA1A1F2-AXQXKyJKcqlCpV8R3Mm
INFO: User cache: C:\Users\Dell\.sonar\cache
INFO: Load/download plugins
INFO: Load plugins index
INFO: Load plugins index (done) | time=65ms
INFO: Load/download plugins (done) | time=193ms
INFO: Process project properties
INFO: Process project properties (done) | time=17ms
INFO: Execute project builders
INFO: Execute project builders (done) | time=8ms
INFO: Project key: JAVA
INFO: Base dir: C:\Users\Dell\eclipse-workspace\SonarTutorial\src
INFO: Working dir: C:\Users\Dell\eclipse-workspace\SonarTutorial\src\scannerwork
INFO: Load project settings for component key: 'JAVA'
INFO: Load quality profiles
INFO: Load quality profiles (done) | time=139ms
INFO: Load active rules
INFO: Load active rules (done) | time=2330ms
WARN: SCM provider autodetection failed. Please use "sonar.scm.provider" to define SCM of your project, or disable the SCM Sensor in the project settings.
INFO: Indexing files...
INFO: Project configuration:
INFO: 1 file indexed
INFO: Quality profile for java: Sonar way
INFO: ----- Run sensors on module JAVA
INFO: Load metrics repository
INFO: Load metrics repository (done) | time=60ms

```

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```

WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by net.sf.cglib.core.ReflectUtils$1 (file:/C:/Users/Dell/.sonar/cache/52f5340dd85620cd162e2b9a45a57124/sonar-javascript-plugin.jar) t
o method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of net.sf.cglib.core.ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
INFO: Sensor JavaSquidSensor [java]
INFO: Configured Java source version (sonar.java.source): none
INFO: JavaClasspath initialization
WARN: Bytecode of dependencies was not provided for analysis of source files, you might end up with less precise results. Bytecode can be provided using sonar.java.lib
aries property.
INFO: JavaClasspath initialization (done) | time=7ms
INFO: JavaTestClasspath initialization
INFO: JavaTestClasspath initialization (done) | time=3ms
INFO: Java Main Files AST scan
INFO: 1 source files to be analyzed
INFO: Load project repositories
INFO: Load project repositories (done) | time=9ms
INFO: 1/1 source files have been analyzed
INFO: Java Main Files AST scan (done) | time=2279ms
INFO: Java Test Files AST scan
INFO: 0 source files to be analyzed
INFO: Java Test Files AST scan (done) | time=3ms
INFO: 0/0 source files have been analyzed
INFO: Java Generated Files AST scan
INFO: 0 source files to be analyzed
INFO: Java Generated Files AST scan (done) | time=4ms
INFO: 0/0 source files have been analyzed
INFO: Sensor JavaSquidSensor [java] (done) | time=2737ms
INFO: Sensor SonarCSS Rules [cssfamily]
INFO: No CSS, PHP, HTML or VueJS files are found in the project. CSS analysis is skipped.
INFO: Sensor SonarCSS Rules [cssfamily] (done) | time=5ms
INFO: Sensor JaCoCo XML Report Importer [jacoco]
INFO: 'sonar.coverage.jacoco.xmlReportPaths' is not defined. Using default locations: target/site/jacoco/jacoco.xml,target/site/jacoco-it/jacoco.xml,build/reports/jacoc
o/test/jacocoTestReport.xml
INFO: No report imported, no coverage information will be imported by JaCoCo XML Report Importer
INFO: Sensor JaCoCo XML Report Importer [jacoco] (done) | time=15ms
INFO: Sensor SurefireSensor [java]
INFO: parsing [C:\Users\Dell\eclipse-workspace\SonarTutorial\src\target\surefire-reports]
INFO: Sensor SurefireSensor [java] (done) | time=6ms
INFO: Sensor JavaXslSensor [java]
INFO: Sensor JavaXslSensor [java] (done) | time=2ms
INFO: Sensor HTML [web]
INFO: Sensor HTML [web] (done) | time=10ms

```

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```

INFO: ----- Run sensors on project
INFO: Sensor Zero Coverage Sensor
INFO: Sensor Zero Coverage Sensor (done) | time=23ms
INFO: Sensor Java CPD Block Indexer
INFO: Sensor Java CPD Block Indexer (done) | time=26ms
INFO: SCM Publisher No SCM system was detected. You can use the 'sonar.scm.provider' property to explicitly specify it.
INFO: CPD Executor 1 file had no CPD blocks
INFO: CPD Executor Calculating CPD for 0 files
INFO: CPD Executor CPD calculation finished (done) | time=0ms
INFO: Analysis report generated in 166ms, dir size=80 KB
INFO: Analysis report compressed in 63ms, zip size=11 KB
INFO: Analysis report uploaded in 1336ms
INFO: ANALYSIS SUCCESSFUL, you can browse http://localhost:9000/dashboard?id=JAVA
INFO: Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report
INFO: More about the report processing at http://localhost:9000/api/ce/task?id=AXQraQK8yruqztXAe1GP
INFO: Analysis total time: 15.280 s
INFO: -----
INFO: EXECUTION SUCCESS
INFO: -----
INFO: Total time: 17.935s
INFO: Final Memory: 8M/37M
INFO: -----

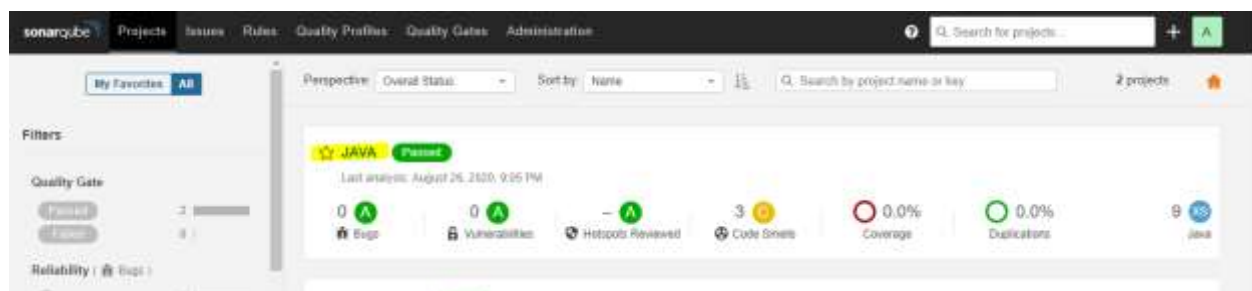
C:\Users\Dell\eclipse-workspace\SonarTutorial\src>

```

Now, your execution is successful.

STEP-7

Check you “localhost” on chrome it show your project analysis





Project Analysis is completed.