

## GitHub + SonarQube for Analyzing Code Quality

### *1. Downloading projects from GitHub*

Projects can be downloaded based on users or an organization.

Open Git Bash and run the following command:

```
curl "https://api.github.com/users/pazdera/repos?per_page=100" | grep -e 'git_url*' | cut -d \" -f 4 | xargs -L1 git clone
```

The repositories get downloaded on the local machine.

### *2. Setting up the SonarQube*

a. Download SonarQube from the following link:

<https://www.sonarqube.org/downloads/>

b. Then, Start the SonarQube server and check if its working fine by following the steps on

<https://docs.sonarqube.org/display/SONAR/Get+Started+in+Two+Minutes>

### *3. Download Apache Maven*

Download apache maven (binary zip archive) from <https://maven.apache.org/download.cgi> and set up the environment variables as mentioned in <https://maven.apache.org/install.html>.

Once the path is set, run **mvn** command on the command prompt to check if maven is installed properly.

4. Make sure you have a *maven project downloaded* on your machine

(<https://github.com/SonarSource/sonar-scanning-examples/tree/master/sonarqube-scanner-maven>)

5. Now, change directory to the project's directory and *run the following command*:

```
mvn sonar:sonar -Dsonar.host.url=http://localhost:9000 -  
Dsonar.login=0a79ae8375ac11f1e756d2a9fc4a51b255978b23
```

Note: *0a79ae8375ac11f1e756d2a9fc4a51b255978b23* is an auto-generated token for my login. You can generate this token when you login to <http://localhost:9000> after you download the SonarQube.

After the above command, login to <http://localhost:9000/projects> and you will be able to see your project there.

# Overview of the Project on SonarQube UI

Example of SonarQube Scanner for Maven + Code Coverage by UT and IT

Passed

Last analysis: February 4, 2018, 5:19 PM

0 A  
Bugs

0 A  
Vulnerabilities

7 A  
Code Smells

0.0%  
Coverage

0.0%  
Duplications

213 XS  
XML, Java

## Detailed Report of the Project

Example of SonarQube Scanner f... master

Overview Issues Measures Code Activity

Quality Gate

Passed

Bugs Vulnerabilities

0 A  
Bugs

0 A  
Vulnerabilities

Code Smells

1h A  
Debt

7  
Code Smells

Coverage

0.0%  
Coverage

Duplications

0.0%  
Duplications

0  
Duplicated Blocks

# Detailed Code Smells

JaCoco Multi Modules :: App IT / src/main/java/example/EmptyClass.java

Remove this empty class, write its code or make it an "interface". \*\*\*

5 days ago ▾ L3 🔗 ⚙️

🔧 Code Smell 🟢 Minor 🔵 Open Not assigned 5min effort

👤 clumsy

Java :: JaCoco Multi Modules :... / src/main/java/example/HelloWorld.java

Replace this use of System.out or System.err by a logger. \*\*\*

5 days ago ▾ L6 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

Replace this use of System.out or System.err by a logger. \*\*\*

5 days ago ▾ L7 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

Replace this use of System.out or System.err by a logger. \*\*\*

5 days ago ▾ L11 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

Replace this use of System.out or System.err by a logger. \*\*\*

5 days ago ▾ L12 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

Replace this use of System.out or System.err by a logger. \*\*\*

5 days ago ▾ L13 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

Replace this use of System.out or System.err by a logger. \*\*\*

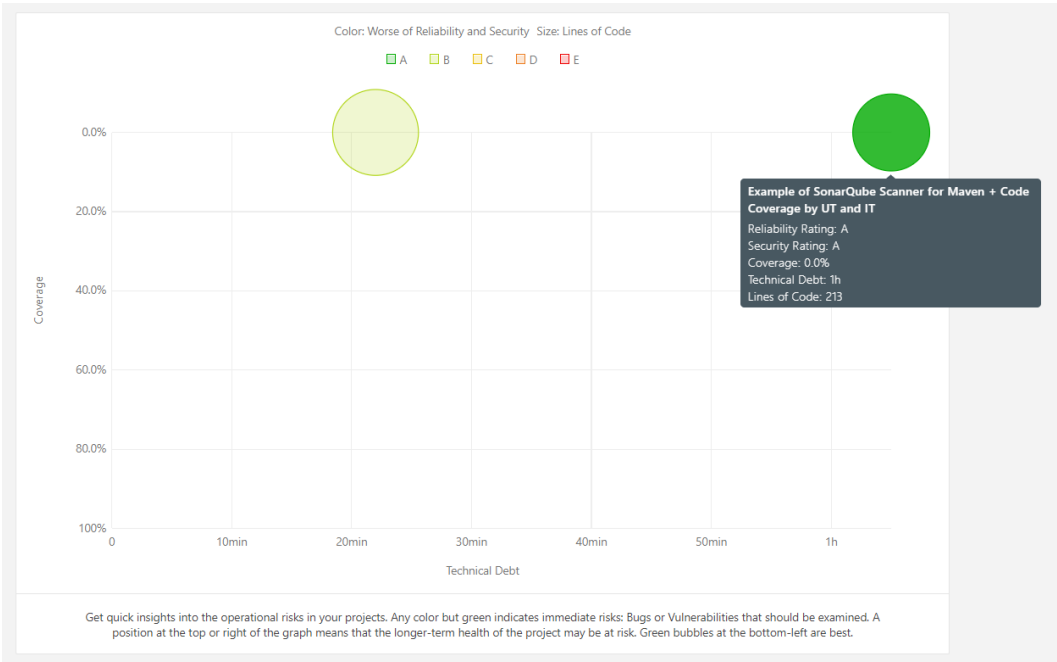
5 days ago ▾ L17 🔗 ⚙️

🔧 Code Smell 🔴 Major 🔵 Open Not assigned 10min effort

👤 bad-practice, cert

7 of 7 shown

# Comparison of two projects with respect to Risk:



Comparison of two projects with respect to Maintainability:

