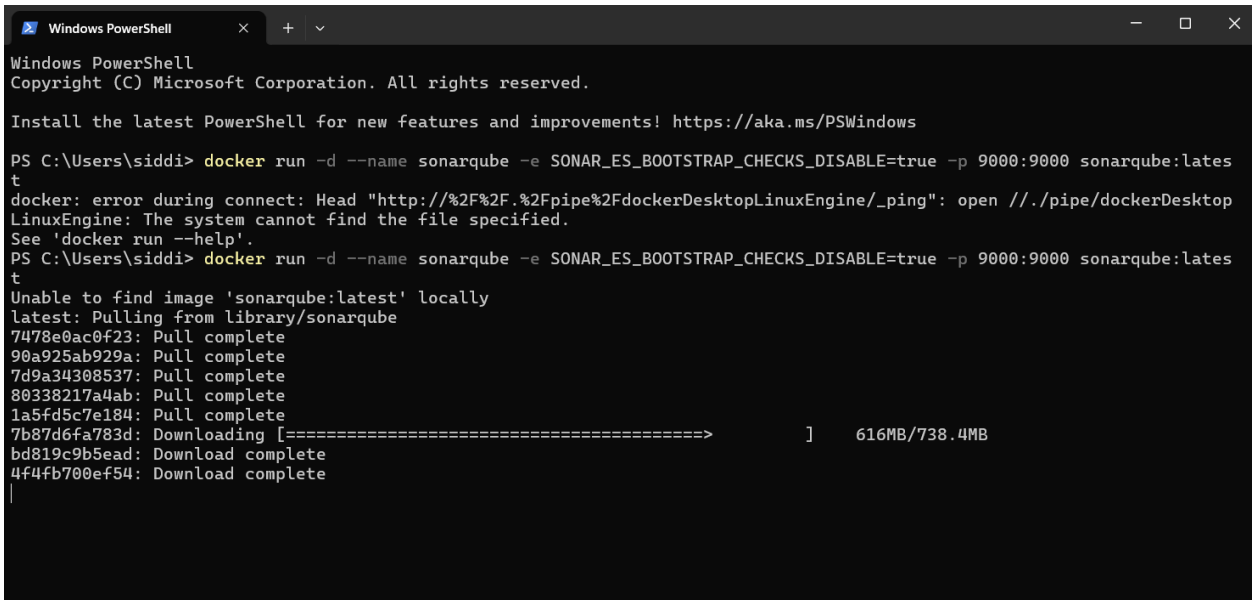
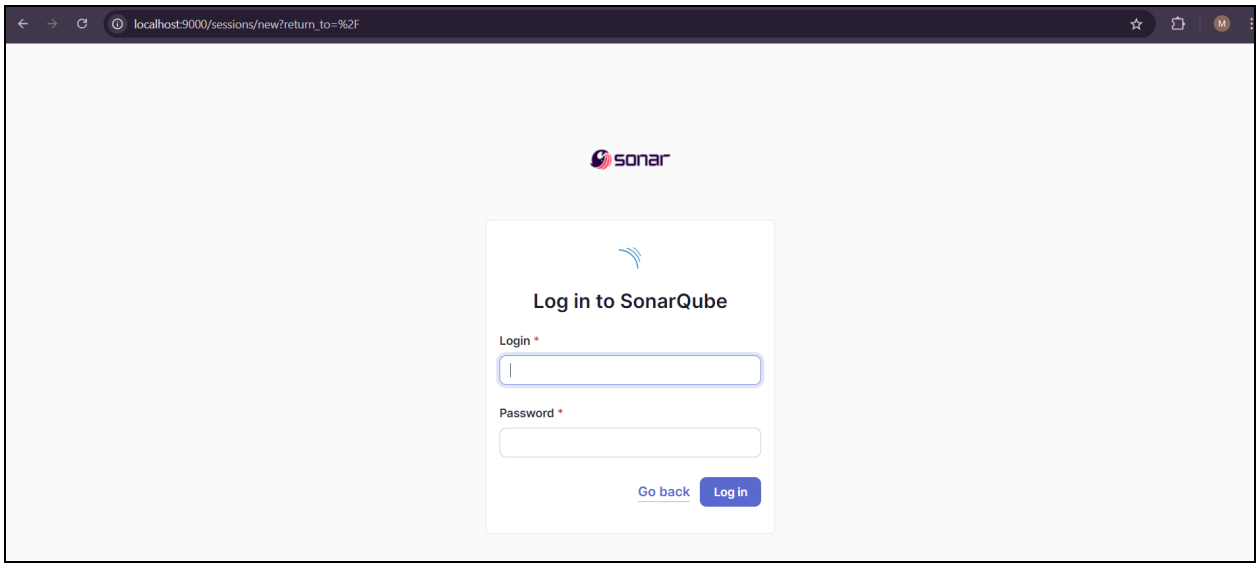
Experiment 7

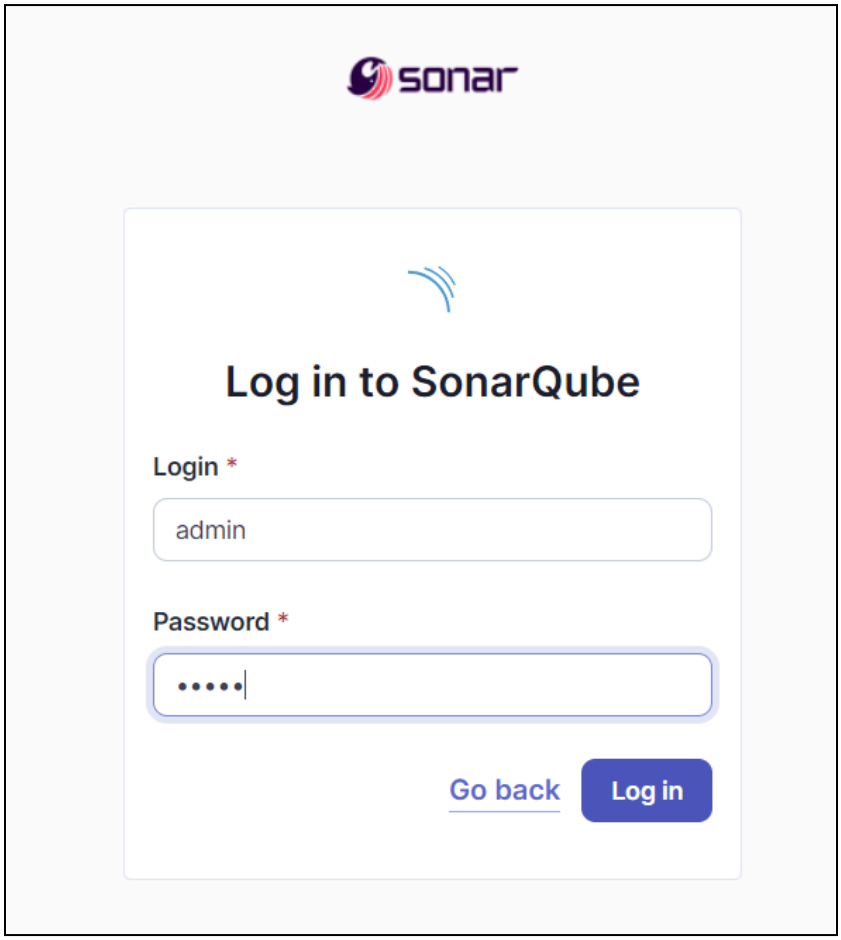
Aim: To understand Static Analysis SAST process and learn to integrate Jenkins SAST to SonarQube/GitLab. Step-1: Open up Jenkins Dashboard on localhost, port 8080 or whichever port it is at for you.

Step 1:
First start docker desktop
Then run the command in windows powershell -
docker run -d --name sonarqube -e SONAR_ES_BOOTSTRAP_CHECKS_DISABLE=true -p 9000:9000 sonarqube:latest

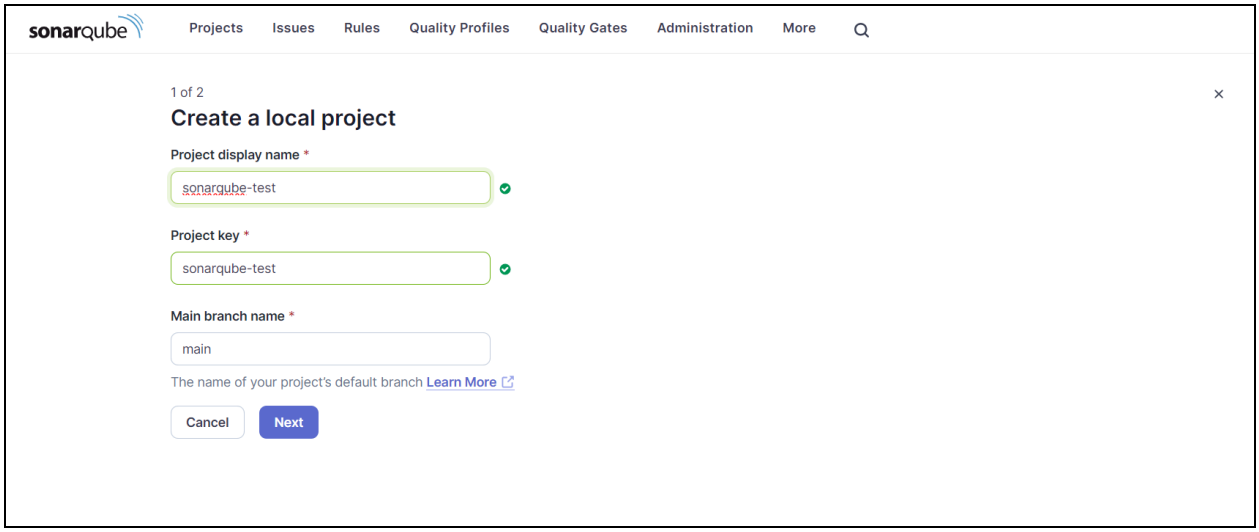


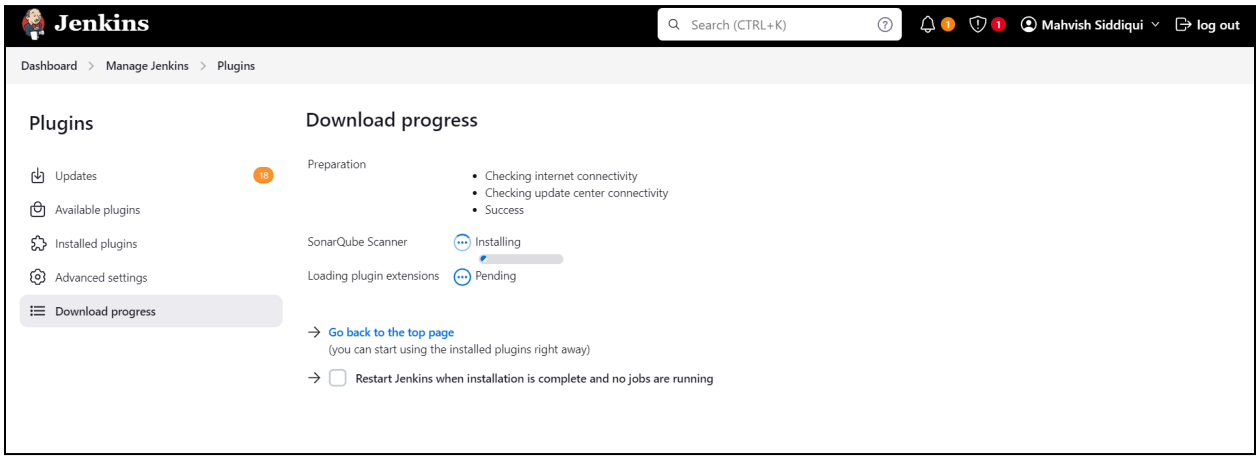
Go to localhost:9000/ in your browser





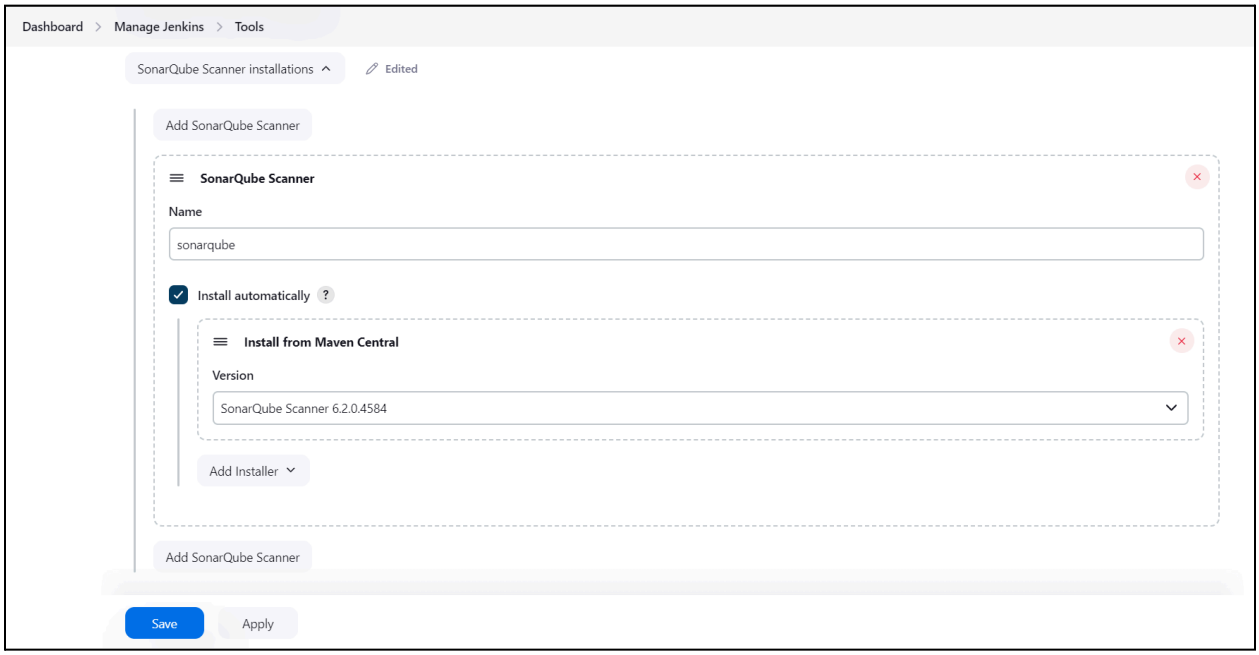
Go to local project and create new



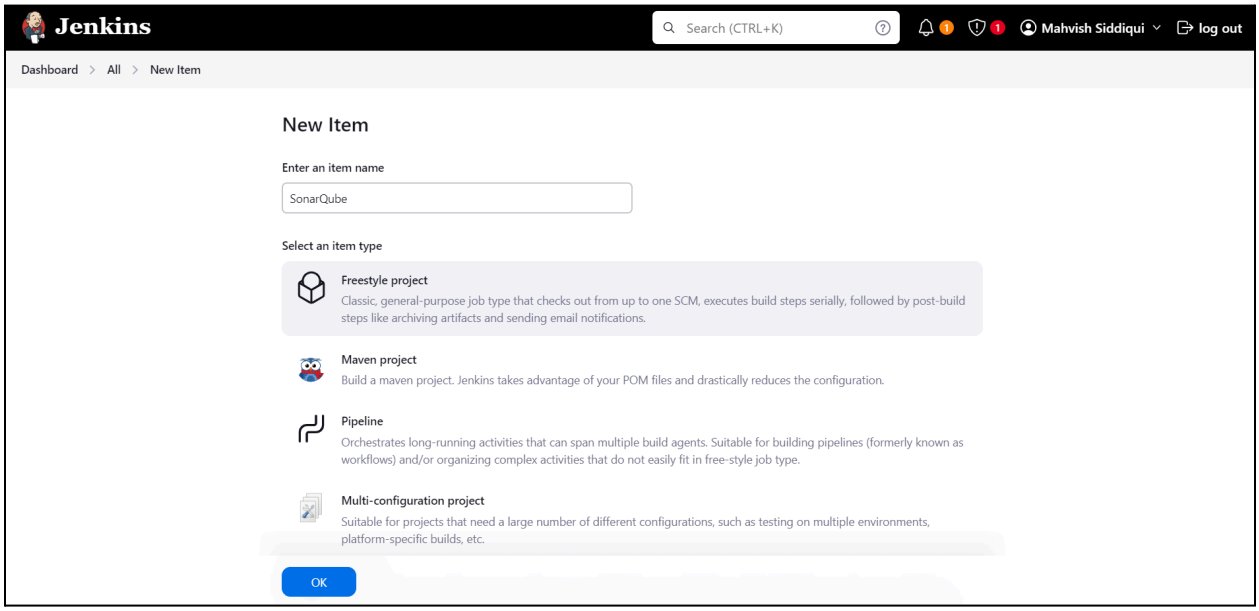


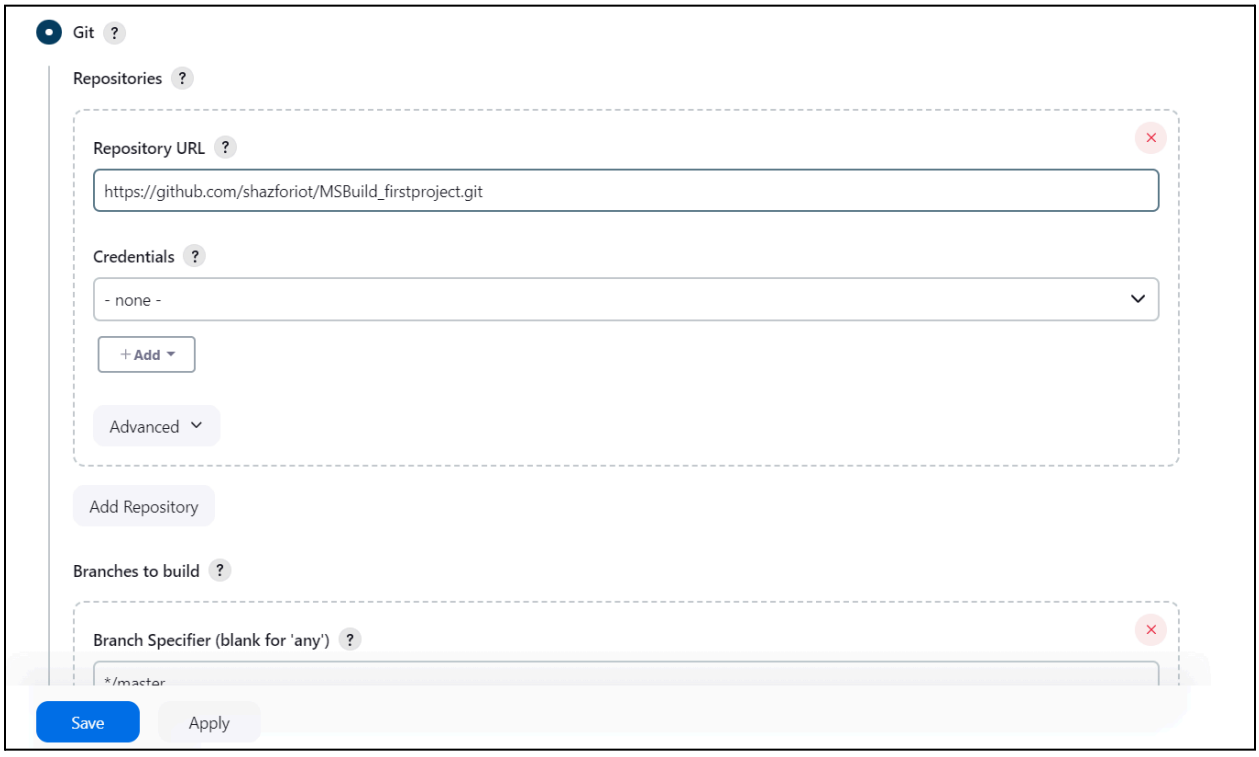
Go to jenkins and then manage jenkins, scroll down

Go to jenkins and then tools

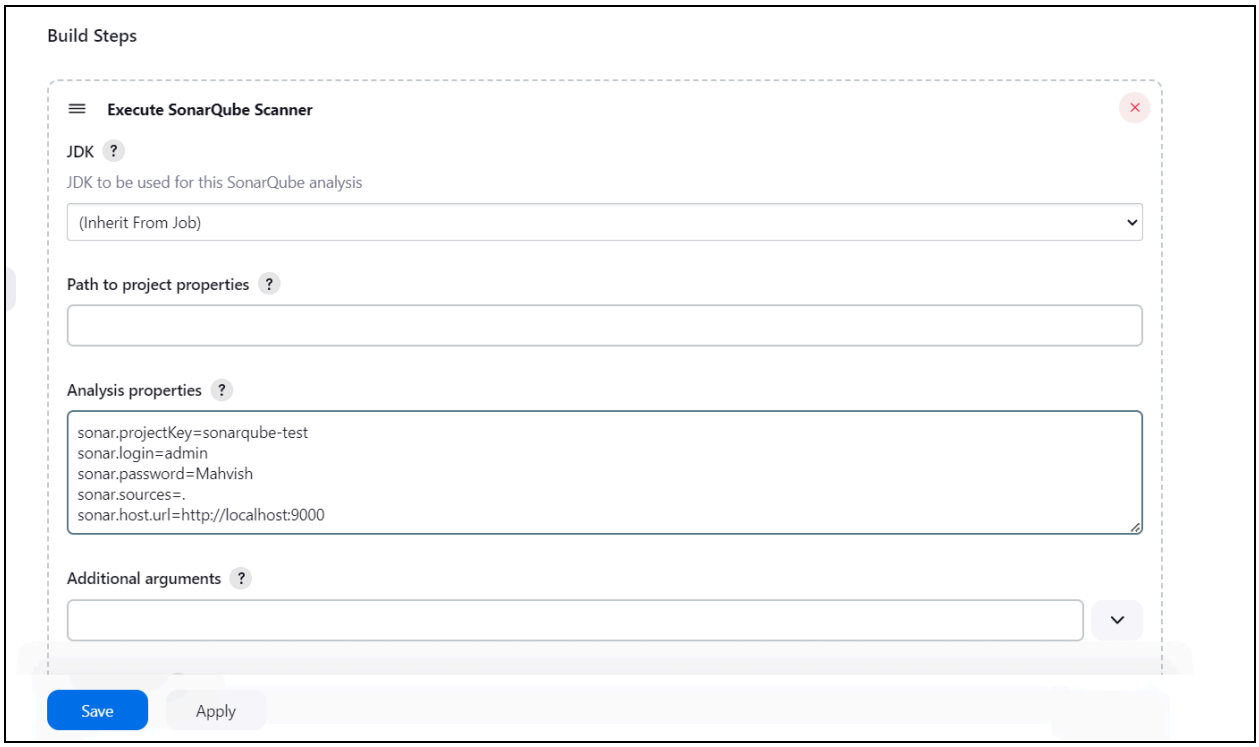


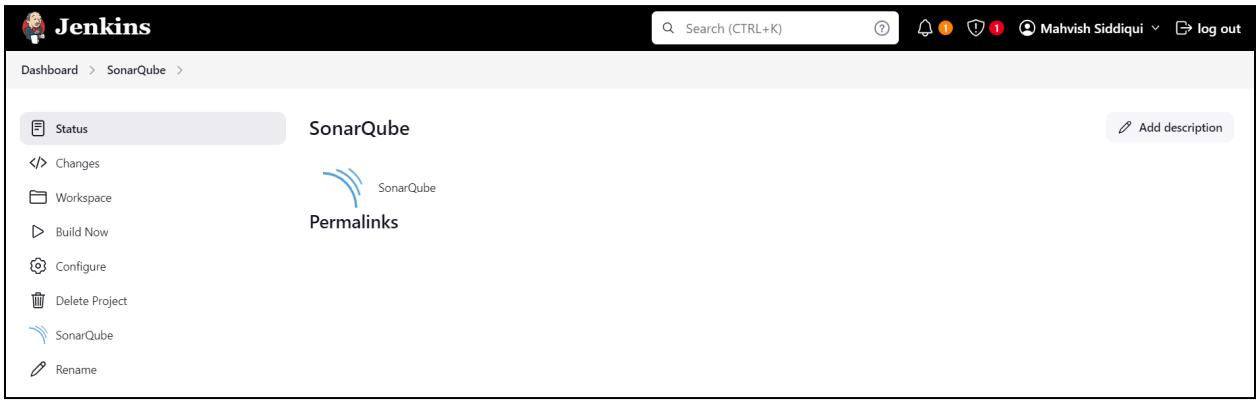
Create a new Freestyle project



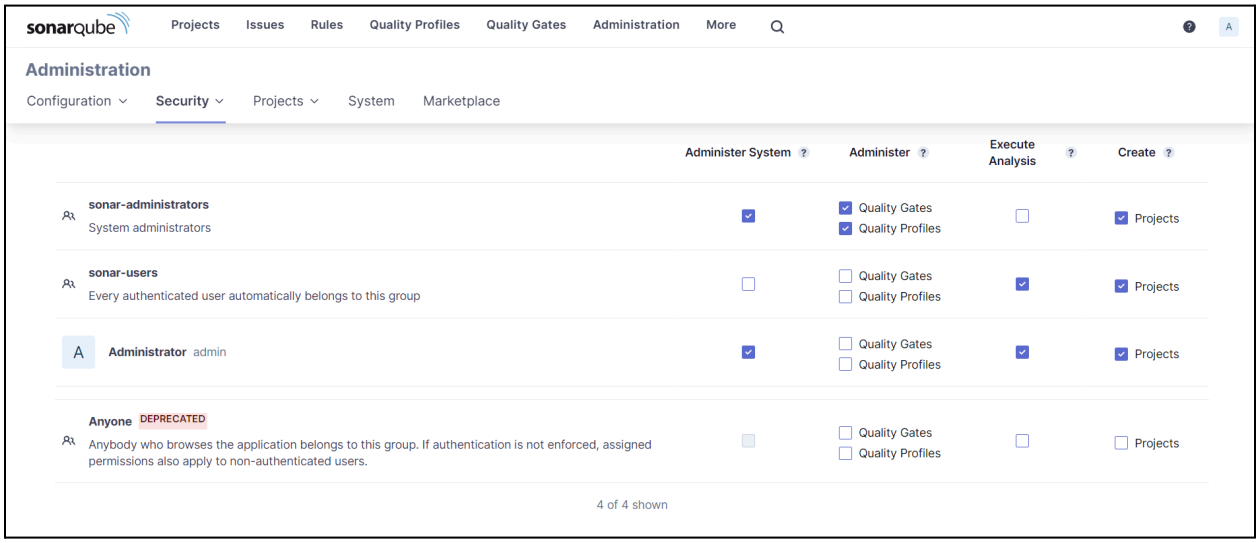


Go to ‘add build steps’ and select SonarQube Scanner


Build Steps
Execute SonarQube Scanner
JDK
JDK to be used for this SonarQube analysis
(Inherit From Job)
Path to project properties
Analysis properties
sonar.projectKey=sonarqube-test
sonar.login=admin
sonar.password=Mahvish
sonar.sources=.
sonar.host.url=http://localhost:9000
Additional arguments
Save
Apply


Jenkins
Search (CTRL+K)
Mahvish Siddiqui
log out
Dashboard
SonarQube
Status
Changes
Workspace
Build Now
Configure
Delete Project
SonarQube
Rename
SonarQube
Add description
SonarQube
Permalinks

Go to http://localhost:9000/admin/permissions



Console Output

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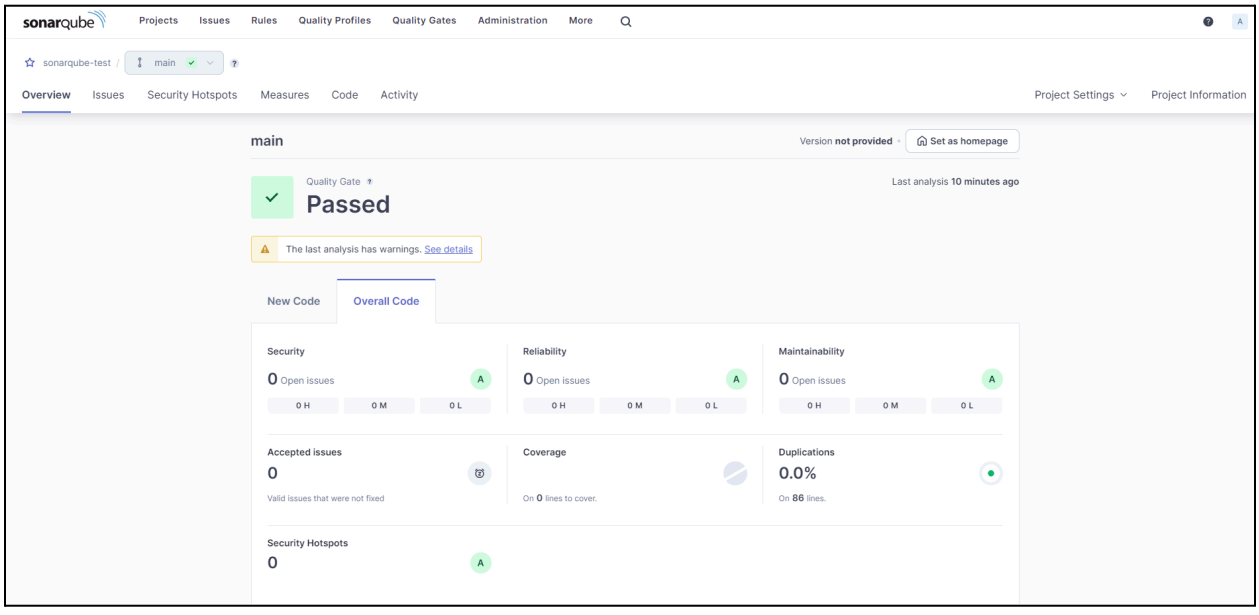
```
Started by user Mahvish Siddiqui
Running as SYSTEM
Building on the built-in node in workspace C:\ProgramData\Jenkins\.jenkins\workspace\SonarQube
The recommended git tool is: NONE
No credentials specified
 > git.exe rev-parse --resolve-git-dir C:\ProgramData\Jenkins\.jenkins\workspace\SonarQube\.git # timeout=10
Fetching changes from the remote Git repository
 > git.exe config remote.origin.url https://github.com/shazforiot/MSBuild_firstproject # timeout=10
Fetching upstream changes from https://github.com/shazforiot/MSBuild_firstproject
 > git.exe --version # timeout=10
 > git --version # 'git version 2.45.2.windows.1'
 > git.exe fetch --tags --force --progress -- https://github.com/shazforiot/MSBuild_firstproject +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision f2bc042c04c6e72427c380bcaee6d6fee7b49adf (refs/remotes/origin/master)
 > git.exe config core.sparsecheckout # timeout=10
 > git.exe checkout -f f2bc042c04c6e72427c380bcaee6d6fee7b49adf # timeout=10
Commit message: "updated"
 > git.exe rev-list --no-walk f2bc042c04c6e72427c380bcaee6d6fee7b49adf # timeout=10
[SonarQube] $ C:\ProgramData\Jenkins\.jenkins\tools\hudson.plugins.sonar.SonarRunnerInstallation\sonarqube\bin\sonar-scanner.bat -
Dsonar.host.url=http://localhost:9000 -Dsonar.projectKey=sonarqube-test -Dsonar.login=admin -Dsonar.host.url=http://localhost:9000 -Dsonar.sources=.
-Dsonar.password=Mahvish -Dsonar.projectBaseDir=C:\ProgramData\Jenkins\.jenkins\workspace\SonarQube
19:47:24.708 WARN  Property 'sonar.host.url' with value 'http://localhost:9000' is overridden with value 'http://localhost:9000'
19:47:24.729 INFO  Scanner configuration file:
```

```
19:48:07.341 INFO  ANALYSIS SUCCESSFUL, you can find the results at: http://localhost:9000/dashboard?id=sonarqube-test
19:48:07.342 INFO  Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report
19:48:07.342 INFO  More about the report processing at http://localhost:9000/api/ce/task?id=237871a0-9f43-4276-91c8-726bb25e780f
19:48:07.360 INFO  Analysis total time: 27.979 s
19:48:07.361 INFO  SonarScanner Engine completed successfully
19:48:07.448 INFO  EXECUTION SUCCESS
19:48:07.450 INFO  Total time: 42.725s
Finished: SUCCESS
```

Visit the following URL to see the result - http://localhost:9000/dashboard?id=sonarqubetest&codeScope=overall