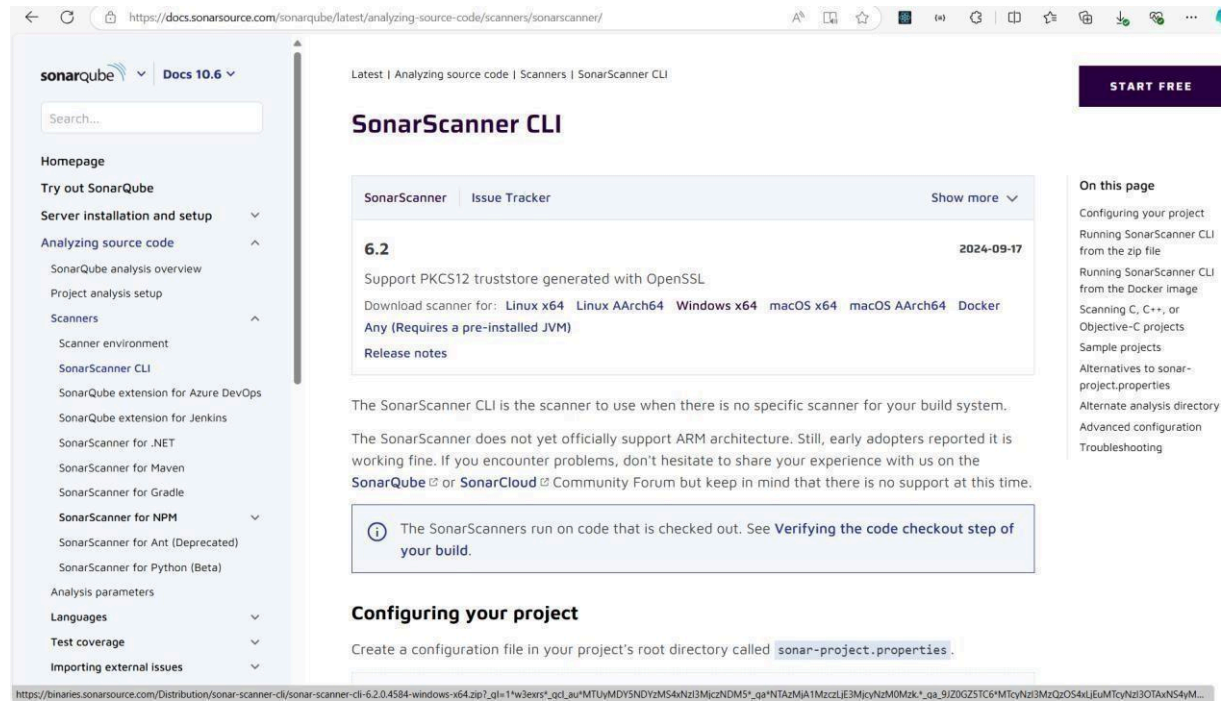


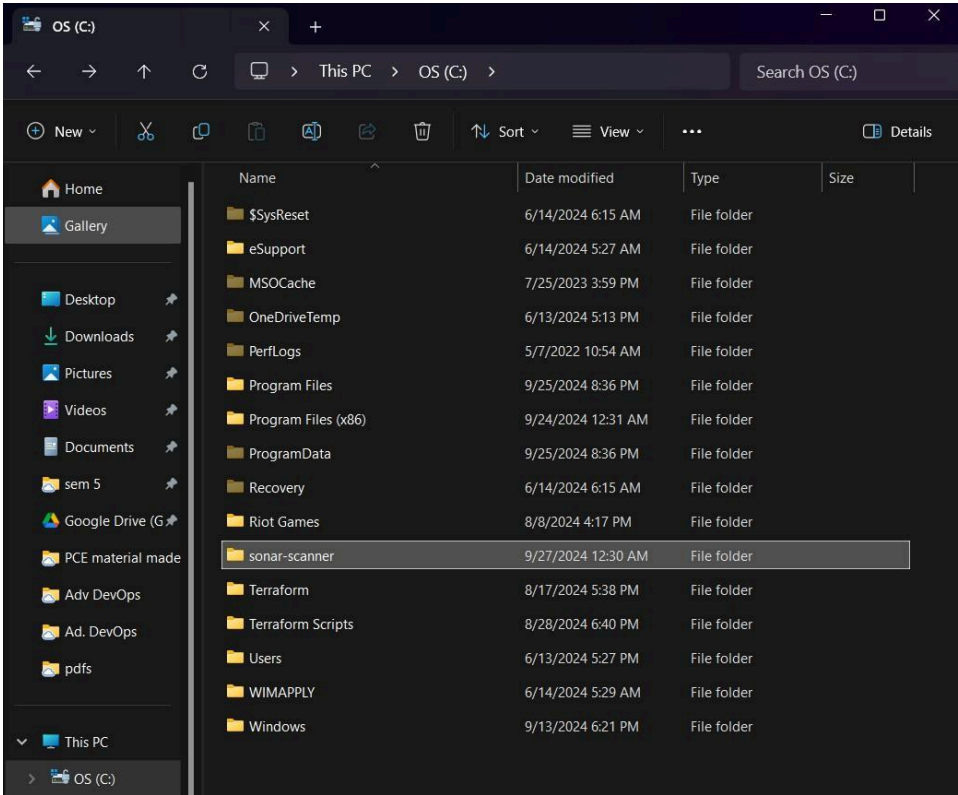
Experiment 8

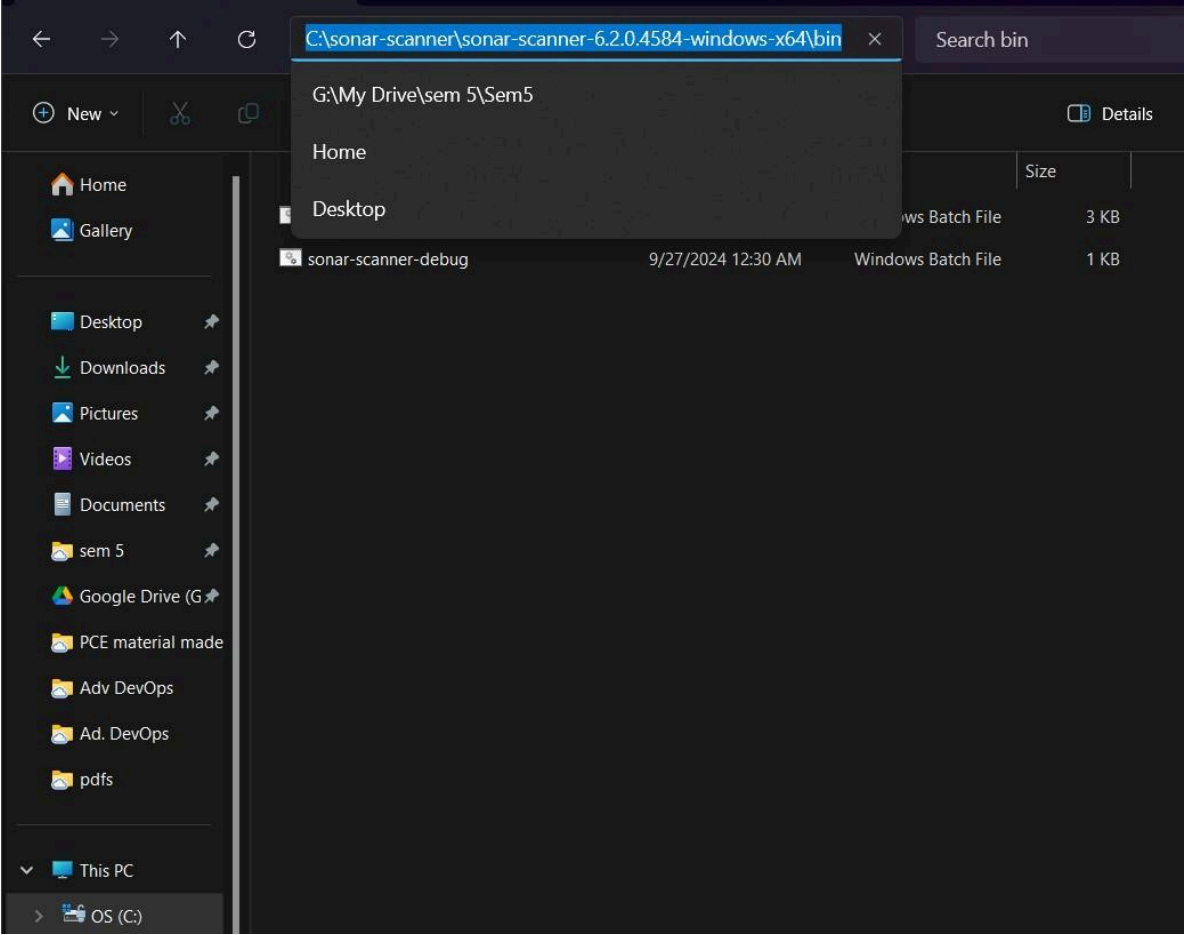
Aim: Create a Jenkins CICD Pipeline with SonarQube / GitLab Integration to perform a static analysis of the code to detect bugs, code smells, and security vulnerabilities on a sample Web /Java / Python application.

Step 1 : Visit the following link to download the SonarScanner CLI - <https://docs.sonarsource.com/sonarqube/latest/analyzing-source-code/scanners/sonarscanner/> and then click on Windows x-64 to download the zip file.



Step 2: Extract the content in C drive and name the folder sonar-scanner





Step 3: Open Command Prompt and run as administrator and run the following commands –
cd C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin dir
sonar-scanner.bat

```
Administrator: Command Prompt
C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin>dir
Volume in drive C is OS
Volume Serial Number is E83B-22BB

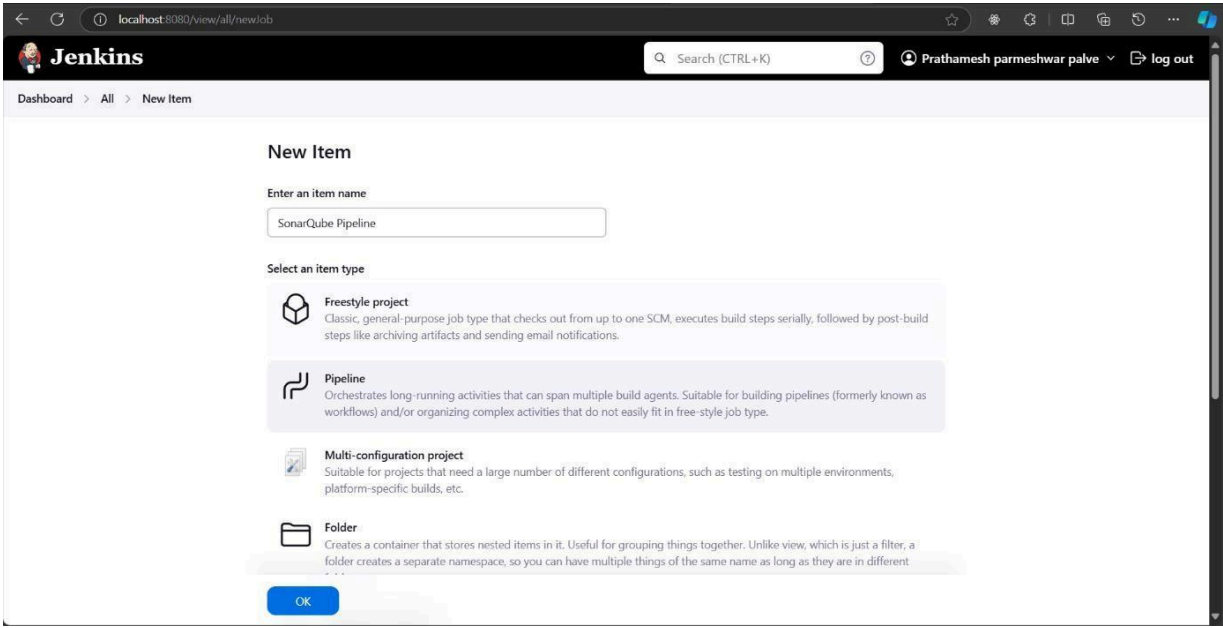
Directory of C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin

25-09-2024  21:18    <DIR>          .
25-09-2024  21:18    <DIR>          ..
25-09-2024  21:18                805 sonar-scanner-debug.bat
25-09-2024  21:18                2,553 sonar-scanner.bat
                2 File(s)              3,358 bytes
                2 Dir(s)  8,509,411,328 bytes free

C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin>sonar-scanner.bat
22:44:22.348 INFO  Scanner configuration file: C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin\..\conf\sonar-scanner.properties
22:44:22.353 INFO  Project root configuration file: NONE
22:44:22.369 INFO  SonarScanner CLI 6.2.0.4584
22:44:22.370 INFO  Java 17.0.12 Eclipse Adoptium (64-bit)
22:44:22.371 INFO  Windows 11 10.0 amd64
22:44:22.389 INFO  User cache: C:\Users\User\.sonar\cache
22:44:22.827 INFO  JRE provisioning: os[windows], arch[amd64]
22:44:23.921 INFO  EXECUTION FAILURE
22:44:23.923 INFO  Total time: 1.577s
22:44:23.923 ERROR Error during SonarScanner CLI execution
java.lang.IllegalStateException: Error status returned by url [https://api.sonarcloud.io/analysis/jres?os=windows&arch=amd64]: 401
    at org.sonarsource.scanner.lib.internal.http.ServerConnection.callUrl(ServerConnection.java:182)
    at org.sonarsource.scanner.lib.internal.http.ServerConnection.callApi(ServerConnection.java:145)
    at org.sonarsource.scanner.lib.internal.http.ServerConnection.callRestApi(ServerConnection.java:123)
    at org.sonarsource.scanner.lib.internal.JavaRunnerFactory.getJreMetadata(JavaRunnerFactory.java:159)
    at org.sonarsource.scanner.lib.internal.JavaRunnerFactory.getJreFromServer(JavaRunnerFactory.java:138)
    at org.sonarsource.scanner.lib.internal.JavaRunnerFactory.createRunner(JavaRunnerFactory.java:95)
    at org.sonarsource.scanner.lib.internal.ScannerEngineLauncherFactory.createLauncher(ScannerEngineLauncherFactory.java:53)
    at org.sonarsource.scanner.lib.ScannerEngineBootstrapper.bootstrap(ScannerEngineBootstrapper.java:118)
    at org.sonarsource.scanner.cli.Main.analyze(Main.java:75)
    at org.sonarsource.scanner.cli.Main.main(Main.java:63)
22:44:23.925 ERROR
22:44:23.926 ERROR Re-run SonarScanner CLI using the -X switch to enable full debug logging.

C:\sonar-scanner\sonar-scanner-6.2.0.4584-windows-x64\bin>
```

Step 4: Open Jenkins and create a pipeline and name the pipeline SonarQube Pipeline and then click on okay.



Step 5: In the configuration, under the Pipeline Section write the following Pipeline Script - node {

```
stage('Cloning the GitHub Repo') {
    git 'https://github.com/shazforiot/GOL.git'
}

stage('SonarQube analysis') {
    withSonarQubeEnv('sonarqube') {
        sh "C:/sonar-scanner/sonar-scanner-6.2.0.4584-windows-x64/bin/sonar-scanner.bat " +
            "-Dsonar.login=admin " +
            "-Dsonar.password=5Palve@08 " +
            "-Dsonar.projectKey=sonarqube " +
            "-Dsonar.exclusions=vendor/**,resources/**,**/*.java " +
            "-Dsonar.host.url=http://192.168.1.40:9000/"
    }
}
}
```

Then click on the save button.

Dashboard

SonarQube Pipeline

Configuration

Configure

General

Advanced Project Options

Pipeline

Definition

Pipeline script

Script

```
1 node {
2   stage('Cloning the Github Repo') {
3     git 'https://github.com/shazforiot/GOL.git'
4   }
5   stage('SonarQube analysis') {
6     withSonarQubeEnv('sonarqube') {
7       sh 'C:/sonar-scanner/sonar-scanner-6.2.0.4584-windows-x64/bin/sonar-scanner.bat ' +
8         "-Dsonar.login=admin " +
9         "-Dsonar.password=SPalve008 " +
10        "-Dsonar.projectKey=sonarqube " +
11        "-Dsonar.exclusions=vendor/**,resources/**/*.*.java " +
12        "-Dsonar.host.url=http://192.168.1.48:9000/"
13      }
14    }
15  }
16 }
```

Use Groovy Sandbox

Pipeline Syntax

Save

Apply

REST API

Jenkins 2.462.2

Jenkins

Search (CTRL+K)

Prathamesh parmeshwar palve

log out

Dashboard

SonarQube Pipeline

Status

Changes

Build Now

Configure

Delete Pipeline

SonarQube

Stages

Rename

Pipeline Syntax

SonarQube Pipeline

Add description

Permalinks

Last build (#8), 23 min ago

Last stable build (#8), 23 min ago

Last successful build (#8), 23 min ago

Last failed build (#6), 1 hr 1 min ago

Last unsuccessful build (#7), 31 min ago

Last completed build (#8), 23 min ago

Build History

trend

Filter...

#8

Sep 27, 2024, 2:00 AM

#7

Sep 27, 2024, 1:52 AM

Jenkins

Search (CTRL+K)

Prathamesh parmeshwar palve

log out

Dashboard

SonarQube Pipeline

#8

Status

Changes

Console Output

Edit Build Information

Delete build '#8'

Timings

Git Build Data

Pipeline Overview

Pipeline Console

Replay

Pipeline Steps

Workspaces

Previous Build

Console Output

Download

Copy

View as plain text

Skipping 4,246 KB. Full Log

```
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 789. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 512. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 248. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 886. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 249. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 662. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 615. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 664. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 913. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 810. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
web/tools/jmeter/docs/api/org/apache/jmeter/visualizers/PropertyControlGui.html for block at line 668. Keep only the first 100 references.
02:06:47.449 WARN Too many duplication references on file gameoflife-
```

