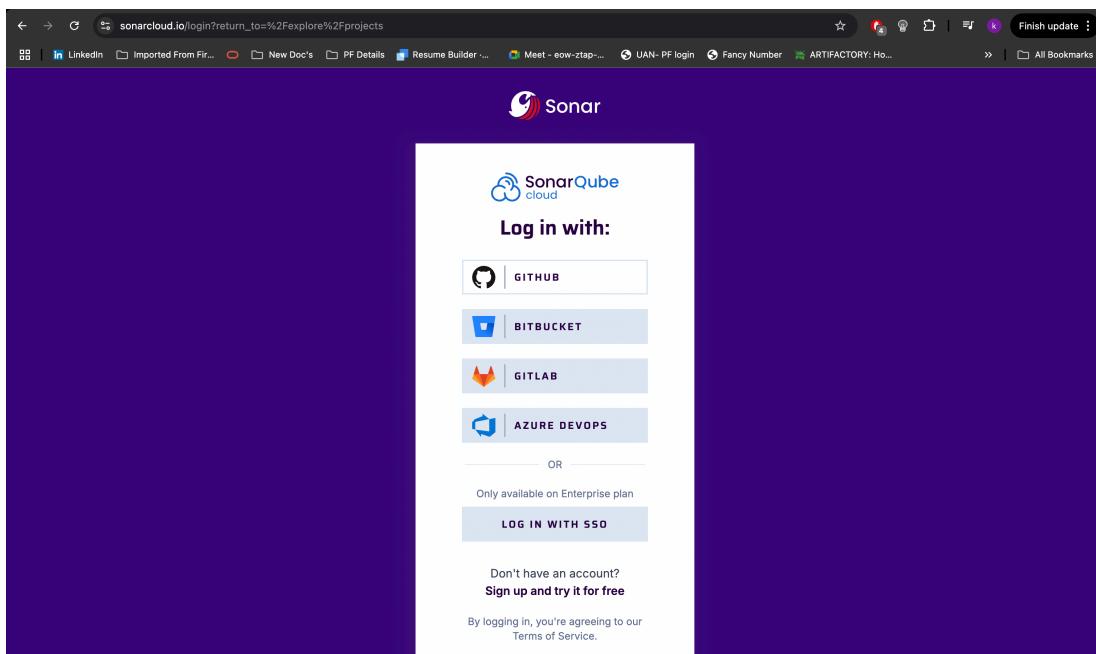


Sonar Qube Installation:

STEP 1:

Login to the sonar tube with Github as mentioned below:
<https://sonarcloud.io/explore/projects>



Step 2:

Select My Projects and then click on + symbol and select create new Organization as mentioned below:

Filters

Quality Gate

- Passed: 2
- Failed: 0

Reliability

- A: 1
- B: 0
- C: 2
- D: 0
- E: 0

Security

- A: 2
- B: 1
- C: 0
- D: 0
- E: 0

Security Review

- A > 80%: 3

Search for projects Perspective Overall Status Sort by Name

Analyze new project Create new organization 15 projects

Assignment-vik / my-helloworld NEW PUBLIC

Last analysis: 1/17/2025, 6:47 AM • 106 Lines of Code • XML, Java

Security: B 2, Reliability: A 0, Maintainability: A 3, Hotspots Reviewed: 100%, Coverage: 0.0%, Duplications: 0.0%

Kedarnadh / aws PUBLIC

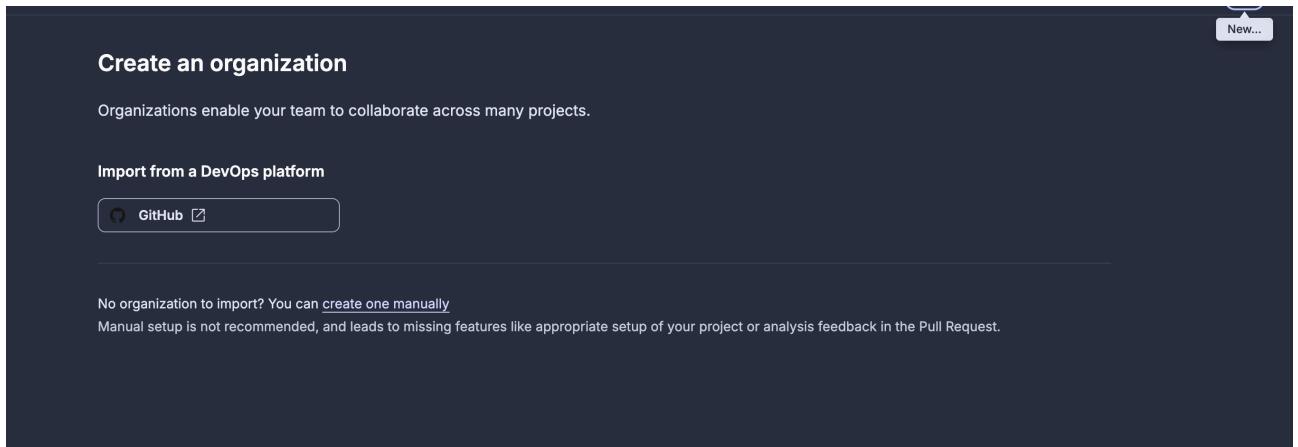
Project is not analyzed yet. Configure analysis

Kedarnadh / bus_booking PUBLIC

Project is not analyzed yet. Configure analysis

STEP 3:

Click on Create one manually



Step 4:

Fill the details and select free tier.

The screenshot shows a dark-themed 'Create an organization' form. At the top, there are navigation links: 'My Projects', 'My Issues', 'Explore', and a search icon. The main title 'Create an organization' is at the top. Below it is the sub-instruction: 'Organizations enable your team to collaborate across many projects.' A note below states: 'Manual setup is not recommended, and leads to missing features like appropriate setup of your project or analysis feedback in the Pull Request. We recommend you [import your organization](#)'.

1 Enter your organization details

Name *

Up to 255 characters

Key * [?](#)

Organization key must start with a lowercase letter or number, followed by lowercase letters, numbers or hyphens, and must end with a letter or number. Maximum length: 255 characters.

> Add additional info

Step 5:

Click on Analyze a new project and add the display names as mentioned below:

The screenshot shows the 'Analyze projects' page in SonarQube. The 'Organization' dropdown is set to 'Sample-test-123'. The 'Display Name' field contains 'Test-campaign'. The 'Project Key' field contains 'sample-test-123_test-campaign'. The 'Project visibility' section has 'Private' selected. A sidebar on the right offers an 'Upgrade for more features' plan with a 14-day free trial. A message at the bottom right says 'Already have a coupon? apply it directly here.'

Step 6:

Change the Project validity to Public and select next.
Select Previous version and click on Create project:

The screenshot shows the 'Create project' page. It includes a note about focusing on recent changes and a link to 'New Code Definition'. A box highlights the 'Set a new code definition for your organisation to use it by default for all new projects' option, noting it can help with methodology consistency. Below this, the 'The new code for this project will be based on:' section shows 'Previous version' selected, with a note that any code changed since the previous version is considered new. An alternative 'Number of days' option is also shown. At the bottom, a note says you can change the code definition later, and there are 'Back' and 'Create project' buttons.

Step 7:

Select With Git actions and click on maven project as follows:

The screenshot shows the SonarCloud configuration interface for a project named 'Test-campaign'. On the left, there's a sidebar with 'My Projects', 'My Issues', 'Explore', and a search bar. The main area is titled 'Analyze a project with a GitHub Action'. It has two sections: '1 Create a GitHub Secret' and '2 Create or update a build file'. In section 1, steps 1 and 2 are listed: 'In the Name field, enter SONAR_TOKEN' and 'In the Value field, enter 26c605ea81ab6f83af9f49bd1282d644543afb76'. In section 2, it asks 'What option best describes your project?' with 'Maven' selected. Below that, it says 'Update your pom.xml file with the following properties:' and shows a code snippet:

```
<properties>
  <sonar.organization>sample-test-123</sonar.organization>
  <sonar.host.url>https://sonarcloud.io</sonar.host.url>
</properties>
```

A 'Copy' button is next to the code snippet. At the bottom, there's a note: 'Create or update your .github/workflows/build.yml' with a link to 'GitHub Actions documentation'.

Step 8:

Save the Organization, Key, token and project details which you need to add it in Pom file and iml file.

Below are some sample details:(In pom file)

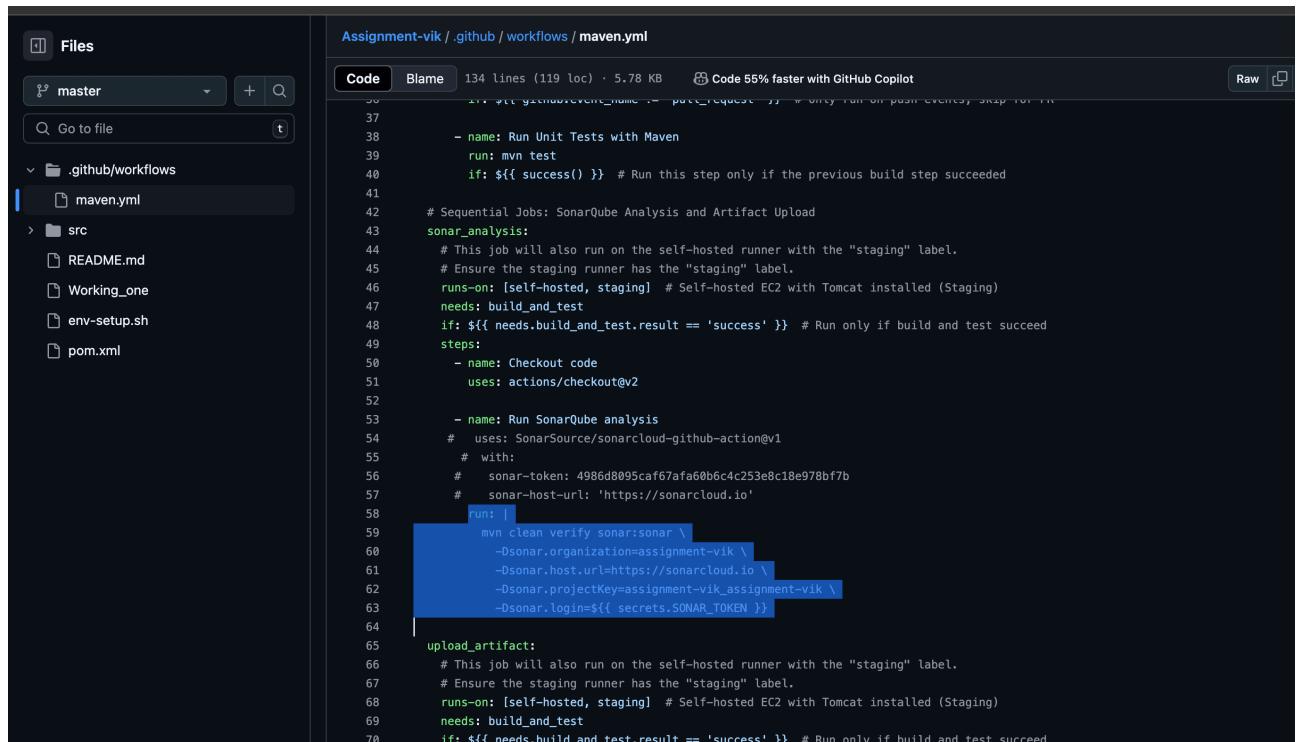
```
<properties>
<sonar.organization>assignment-vik</sonar.organization>
<sonar.host.url>https://sonarcloud.io</sonar.host.url>
<sonar.projectKey>assignment-vik</sonar.projectKey>
</properties>
```

The screenshot shows a GitHub code editor with a file named 'pom.xml' open. The code contains the following XML configuration for SonarCloud analysis:<project xmlns="http://maven.apache.org/POM/4.0.0"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
 <modelVersion>4.0.0</modelVersion>
 <groupId>com.example</groupId>
 <artifactId>my-helloworld</artifactId>
 <version>1.0-SNAPSHOT</version>
 <packaging>war</packaging>
 <properties>
 <sonar.organization>assignment-vik</sonar.organization>
 <sonar.host.url>https://sonarcloud.io</sonar.host.url>
 <sonar.projectKey>assignment-vik</sonar.projectKey>
 </properties>
 <distributionManagement>
 <snapshotRepository>
 <id>assignment-vik</id>
 <name>assignment-vik-libs-snapshot</name>
 <url>http://44.222.253.17:8081/artifactory/assignment-vik-libs-snapshot</url>
 </snapshotRepository>
 </distributionManagement>
 <dependencies>
 <!-- Servlet API Dependency -->
 <dependency>
 <groupId>javax.servlet</groupId>
 <artifactId>javax.servlet-api</artifactId>
 <version>4.0.1</version>
 </dependency>
 </dependencies>
</project>

Below lines we need to add in yml file:

run: |

```
mvn clean verify sonar:sonar \
-Dsonar.organization=assignment-vik \
-Dsonar.host.url=https://sonarcloud.io \
-Dsonar.projectKey=assignment-vik_assignment-vik \
-Dsonar.login=${{ secrets.SONAR_TOKEN }}
```



The screenshot shows the GitHub Actions workflow editor. On the left, the repository structure is visible with files like README.md, Working_one, env-setup.sh, and pom.xml. The .github/workflows/maven.yml file is open in the editor. The code block contains a 'run' section highlighted with a blue selection bar, which contains the command to run SonarQube analysis.

```
mvn clean verify sonar:sonar \
-Dsonar.organization=assignment-vik \
-Dsonar.host.url=https://sonarcloud.io \
-Dsonar.projectKey=assignment-vik_assignment-vik \
-Dsonar.login=${{ secrets.SONAR_TOKEN }}
```

NOTE: We need to add the Organization, hostel, Project_key and Sonar_token which is generated.