

Jenkins-03

1) Create one Jenkins job using the below code and create three stages.

stage1: Git clone to download the source code.

stage2: Sonarqube Integration to check the quality of code.

stage3: Slack Integration to send the alerts to slack.

<https://github.com/betawins/VProfile-1.git>

stage1: Git clone to download the source code:

The screenshot shows the Jenkins Dashboard. On the left, there's a sidebar with 'New Item', 'Build History', 'Manage Jenkins', and 'My Views'. The main area displays a table of builds for the job 'v-profile'. The table has columns: S (Status), W (Icon), Name, Last Success, Last Failure, and Last Duration. The first row shows a green checkmark, a sun icon, the name 'v-profile', a success time of '6 min 25 sec', a failure time of 'N/A', and a duration of '1.9 sec'. Below the table, there are buttons for 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing '0/2').

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	v-profile	6 min 25 sec	N/A	1.9 sec

The screenshot shows the Jenkins Console Output for the job 'v-profile'. The output text is as follows:

```
Started by user narendar
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/v-profile
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/betawins/VProfile-1.git
> git init /var/lib/jenkins/workspace/v-profile # timeout=10
Fetching upstream changes from https://github.com/betawins/VProfile-1.git
> git --version # timeout=10
> git --version # 'git version 2.47.1'
> git fetch --tags --force --progress -- https://github.com/betawins/VProfile-1.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/betawins/VProfile-1.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision afc137167b41aaafaeaf82b81aee721ec883901 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f afc137167b41aaafaeaf82b81aee721ec883901 # timeout=10
Commit message: "Update README.md"
First time build. Skipping changelog.
Finished: SUCCESS
```

```
aws
[Alt+S]
United States (Ohio)
narendar p

Total
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : git-core-2.47.1-1.amzn2.0.2.x86_64 1/6
Installing : git-core-doc-2.47.1-1.amzn2.0.2.noarch 2/6
Installing : perl-Error-0.17020-2.amzn2.noarch 3/6
Installing : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 4/6
Installing : perl-Git-2.47.1-1.amzn2.0.2.noarch 5/6
Installing : git-2.47.1-1.amzn2.0.2.x86_64 6/6
Verifying : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 1/6
Verifying : perl-Git-2.47.1-1.amzn2.0.2.noarch 2/6
Verifying : git-2.47.1-1.amzn2.0.2.x86_64 3/6
Verifying : perl-Error-0.17020-2.amzn2.noarch 4/6
Verifying : git-core-doc-2.47.1-1.amzn2.0.2.noarch 5/6
Verifying : git-core-2.47.1-1.amzn2.0.2.x86_64 6/6
Installed:
git.x86_64 0:2.47.1-1.amzn2.0.2
Dependency Installed:
git-core.x86_64 0:2.47.1-1.amzn2.0.2 git-core-doc.noarch 0:2.47.1-1.amzn2.0.2 perl-Error.noarch 1:0.17020-2.amzn2 perl-Git.noarch 0:2.47.1-1.amzn2.0.2
perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2
Complete!
[root@ip-172-31-5-67 ~]# cd /var/lib/jenkins/workspace/v-profile
-bash: cd: /var/lib/jenkins/workspace/v-profile: No such file or directory
[root@ip-172-31-5-67 ~]# cd /var/lib/jenkins/workspace/v-profile
[root@ip-172-31-5-67 v-profile]# ls
ansible azure-pipelines.yml dockerfile pom.xml README.md src
[root@ip-172-31-5-67 v-profile]#

i-0fa61bbab3eeba53a (jenkins-master)
PublicIPs: 3.144.11.145 PrivateIPs: 172.31.5.67
```

stage2: Sonarqube Integration to check the quality of code :

→java installed

```
[ec2-user@ip-172-31-16-23 ~]$ sudo -i
[root@ip-172-31-16-23 ~]# yum install java-1.8*
```

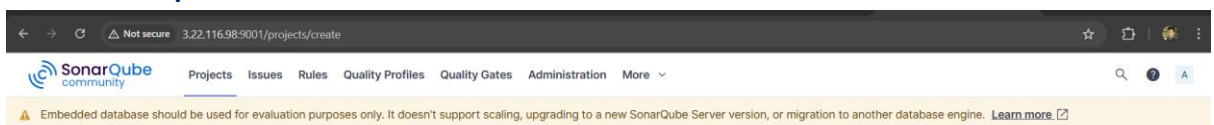
```
Complete!
[root@ip-172-31-16-23 ~]# java -version
openjdk version "1.8.0_442"
OpenJDK Runtime Environment Corretto-8.442.06.1 (build 1.8.0_442-b06)
OpenJDK 64-Bit Server VM Corretto-8.442.06.1 (build 25.442-b06, mixed mode)
```

→Docker installation

```
Installed:
containerd-1.7.25-1.amzn2023.0.1.x86_64 docker-25.0.8-1.amzn2023.0.1.x86_64
libcgroup-3.0-1.amzn2023.0.1.x86_64 libnetfilter_conntrack-1.0.8-2.amzn2023.0.2.x86_64
pigz-2.5-1.amzn2023.0.3.x86_64 runc-1.2.4-1.amzn2023.0.1.x86_64

Complete!
[root@ip-172-31-16-23 ~]#
```

→run sonarqube



How do you want to create your project?

Do you want to benefit from all of SonarQube Community Build's features (like repository import and Pull Request decoration)?
Create your project from your favorite DevOps platform.

First, you need to set up a DevOps platform configuration.

Import from Azure DevOps Setup

Import from Bitbucket Cloud Setup

Import from Bitbucket Server Setup

Import from GitHub Setup

Import from GitLab Setup

Are you just testing or have an advanced use-case? Create a local project.

[Create a local project](#)

Jenkins

Search narendar log out

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

New credentials

Kind

Secret text

Scope ?

Global (Jenkins, nodes, items, all child items, etc)

Secret

.....

ID ?

naren

Description ?

Create

Jenkins

Search narendar log out

Dashboard > Manage Jenkins > Plugins

Updates

Available plugins

Installed plugins

Advanced settings

Download progress

Download progress

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

SonarQube Scanner Success

Loading plugin extensions Success

[Go back to the top page](#)
(you can start using the installed plugins right away)

☐ Restart Jenkins when installation is complete and no jobs are running

Jenkins

Search narendar log out

Dashboard > Manage Jenkins > System >

☐ Environment variables

SonarQube installations

List of SonarQube installations

Name

sonarqube_server

Server URL

Default is http://localhost:9000

http://3.22.116.98:9001

Server authentication token

SonarQube authentication token. Mandatory when anonymous access is disabled.

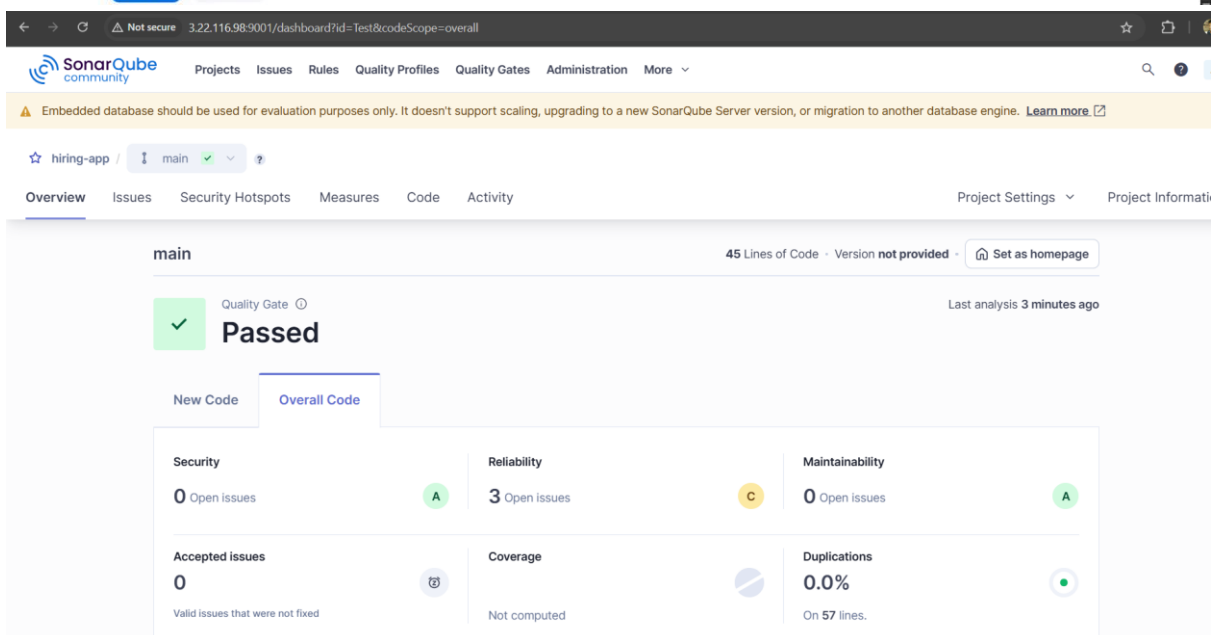
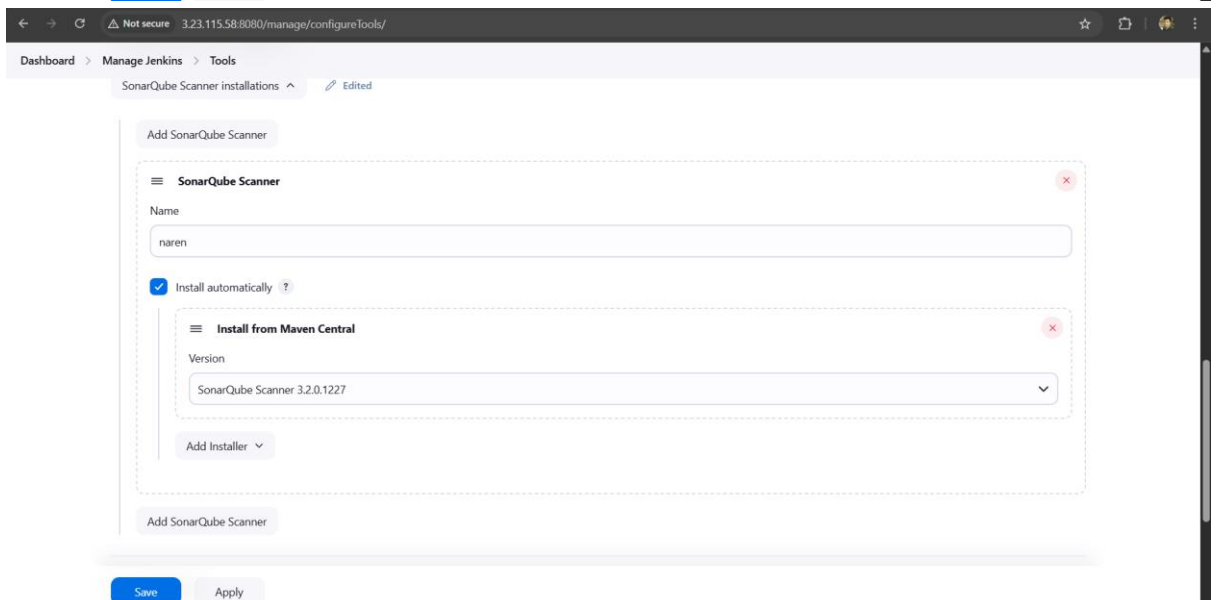
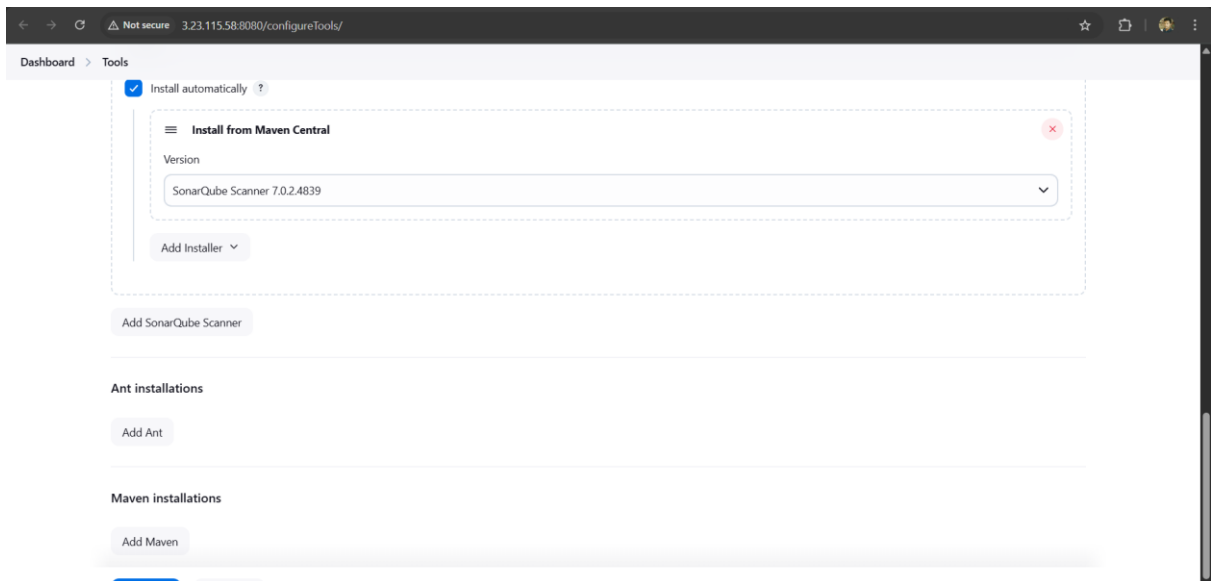
naren

+ Add

Advanced

Save

Apply



← → ↻ Not secure 3.22.116.98:9001/projects

SonarQube community

Projects Issues Rules Quality Profiles Quality Gates Administration More

⚠ Embedded database should be used for evaluation purposes only. It doesn't support scaling, upgrading to a new SonarQube Server version, or migration to another database engine. [Learn more](#)

ℹ The way in which security, reliability, and maintainability counts and ratings are calculated has changed. [Learn more in SonarQube documentation](#)

My Favorites All

Filters

Quality Gate

✓ Passed 1

✗ Failed 0

Security

A ≥ 0 Info issues 1

B ≥ 1 low issue 0

C ≥ 1 medium issue 0

D ≥ 1 high issue 0

E ≥ 1 blocker issue 0

Search for projects... Perspective Overall Status Sort by Name 1 project(s)

☆ hiring-app PUBLIC

Last analysis: 4 minutes ago · 45 Lines of Code · XML, Docker, ...

A 0 C 3 A 0 E 0.0% — 0.0%

Security Reliability Maintainability Hotspots Reviewed Coverage Duplications

1 of 1 shown

stage3: Slack Integration to send the alerts to slack:

Jenkins

Dashboard > Manage Jenkins > Plugins

Plugins

- Updates
- Available plugins
- Installed plugins
- Advanced settings
- Download progress**

Download progress

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

SonarQube Scanner

✓ Success

Loading plugin extensions

✓ Success

Apache HttpComponents Client 5.x API

✓ Success

Slack Notification

✓ Success

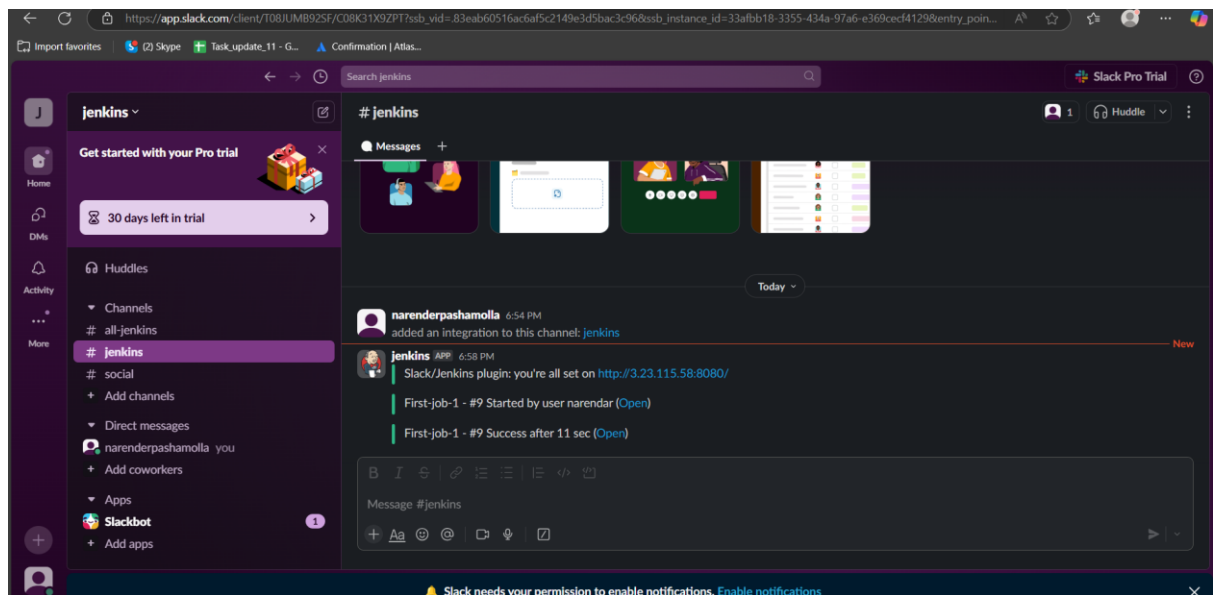
Loading plugin extensions

✓ Success

→ [Go back to the top page](#)
(you can start using the installed plugins right away)

→ ☐ Restart Jenkins when installation is complete and no jobs are running

REST API Jenkins 2.492.2



2) Create one jenkins job using the below code and create three stages.

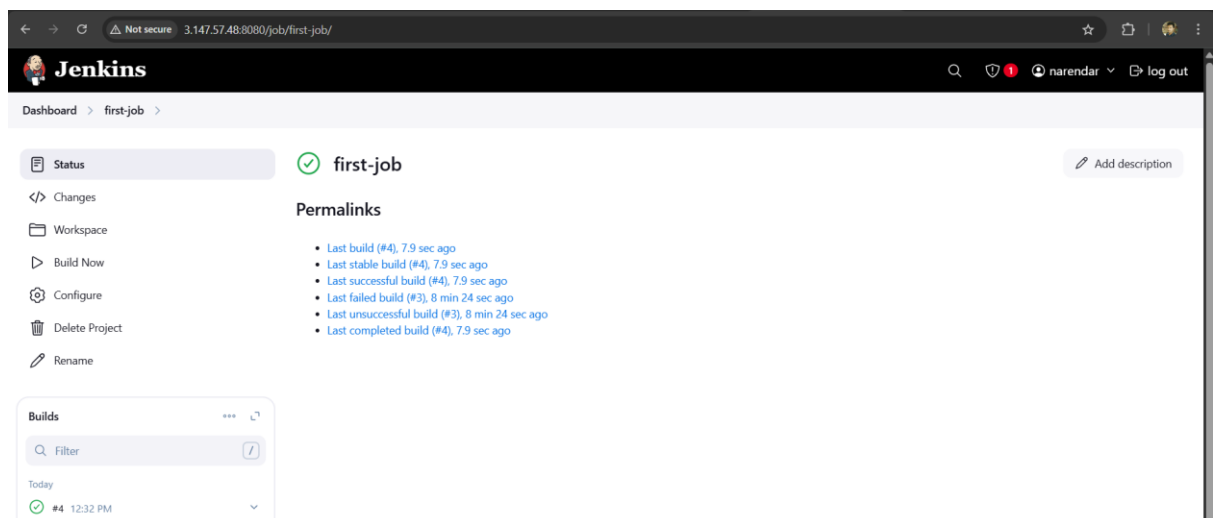
stage1: Git clone to download the source code.

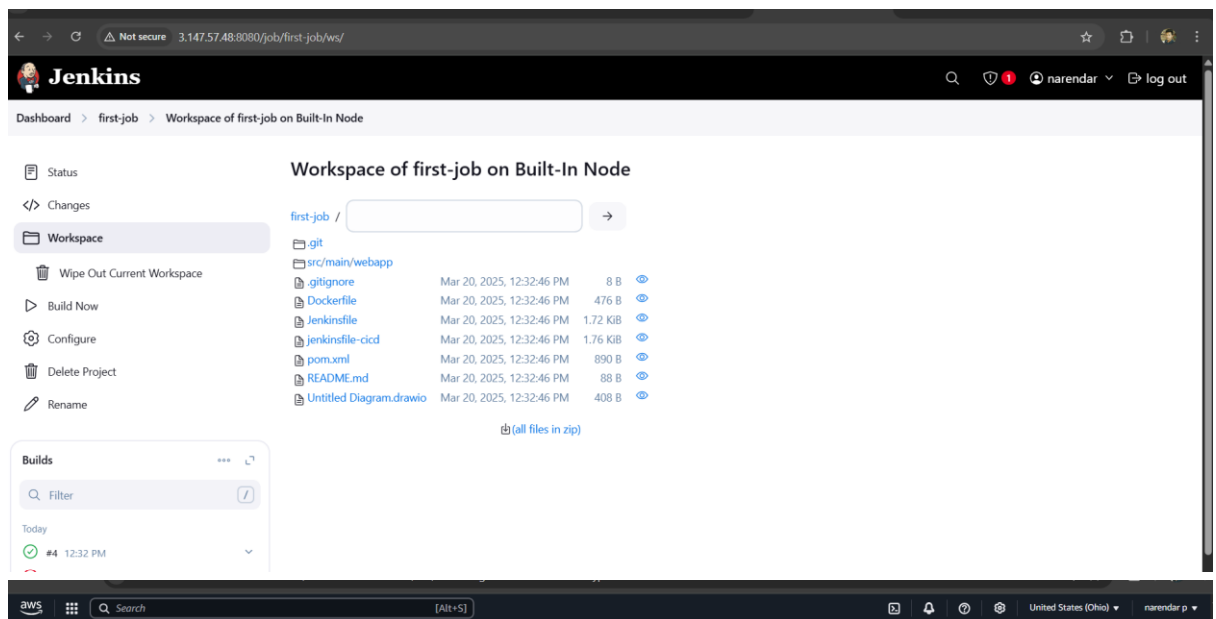
stage2: Sonarqube Integration to check the quality of code.

stage3: Slack Integration to send the alerts to slack. URL.

<https://github.com/betawins/hiring-app.git>

stage1: Git clone to download the source code:





```
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)
Active: active (running) since Thu 2025-03-20 12:23:06 UTC; 40s ago
Main PID: 31772 (java)
Tasks: 46 (limit: 1111)
Memory: 255.3M
CPU: 12.929s
CGroup: /system.slice/jenkins.service
└─31772 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Mar 20 12:23:03 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:03.947+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: Started all plug
Mar 20 12:23:04 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:04.663+0000 [id=29] INFO h.p.b.g.GlobalTimeoutConfiguration:load: global timeout
Mar 20 12:23:05 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:05.617+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: Augmented all ex
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.615+0000 [id=30] INFO jenkins.InitReactorRunner$1:onAttained: System config lo
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.696+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: System config ad
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.726+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: Loaded all jobs
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.745+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: Configuration fo
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.813+0000 [id=29] INFO jenkins.InitReactorRunner$1:onAttained: Completed initia
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal jenkins[31772]: 2025-03-20 12:23:06.864+0000 [id=23] INFO hudson.lifecycle.Lifecycle$onReady: Jenkins is fully up
Mar 20 12:23:06 ip-172-31-1-78.us-east-2.compute.internal systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.
lines 1-20/20 (END)
[ec2-user@ip-172-31-1-78 ~]$ sudo cd /var/lib/jenkins/workspace/first-job/
[ec2-user@ip-172-31-1-78 ~]$ ls
[ec2-user@ip-172-31-1-78 ~]$ sudo -i
[root@ip-172-31-1-78 ~]# cd /var/lib/jenkins/workspace/
[root@ip-172-31-1-78 workspace]# ll
total 0
drwxr-xr-x. 4 jenkins jenkins 171 Mar 20 12:32 first-job
[root@ip-172-31-1-78 workspace]# cd first-job/
[root@ip-172-31-1-78 first-job]# ls
Dockerfile Jenkinsfile README.md 'Untitled Diagram.drawio' jenkinsfile-cicd pom.xml src
[root@ip-172-31-1-78 first-job]#
```

stage2: Sonarqube Integration to check the quality of code:

→ Install java 1.8 version

```
```sh
```

yum install java-1.8\*

```
```
```

```
Complete!
[root@ip-172-31-0-125 ~]# java -version
openjdk version "1.8.0_442"
OpenJDK Runtime Environment Corretto-8.442.06.1 (build 1.8.0_442-b06)
OpenJDK 64-Bit Server VM Corretto-8.442.06.1 (build 25.442-b06, mixed mode)
```

```

Verifying      : libxcrypt-compat-4.4.33-7.amzn2023.x86_64
Verifying      : ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64
Verifying      : mysql-community-client-5.7.44-1.el7.x86_64
Verifying      : mysql-community-common-5.7.44-1.el7.x86_64
Verifying      : mysql-community-libs-5.7.44-1.el7.x86_64
Verifying      : mysql-community-server-5.7.44-1.el7.x86_64

Installed:
  libxcrypt-compat-4.4.33-7.amzn2023.x86_64  mysql-community-client-5.7.44-1.el7.x86_64
  mysql-community-server-5.7.44-1.el7.x86_64  ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64

Complete!
[root@ip-172-31-0-125 ~]# sudo systemctl start mysqld.service
[root@ip-172-31-0-125 ~]# systemctl start mysqld
[root@ip-172-31-0-125 ~]# systemctl enable mysqld
[root@ip-172-31-0-125 ~]# netstat -na | grep 3306
tcp6      0      0 :::3306          :::*              LISTEN
[root@ip-172-31-0-125 ~]#

[root@ip-172-31-0-125 ~]# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2
Server version: 5.7.44



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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>

```

[Alt+S]
United States (Ohio)
narendar p

```

Query OK, 0 rows affected (0.00 sec)

mysql> GRANT ALL ON sonar.* TO sonar@localhost;
Query OK, 0 rows affected (0.00 sec)

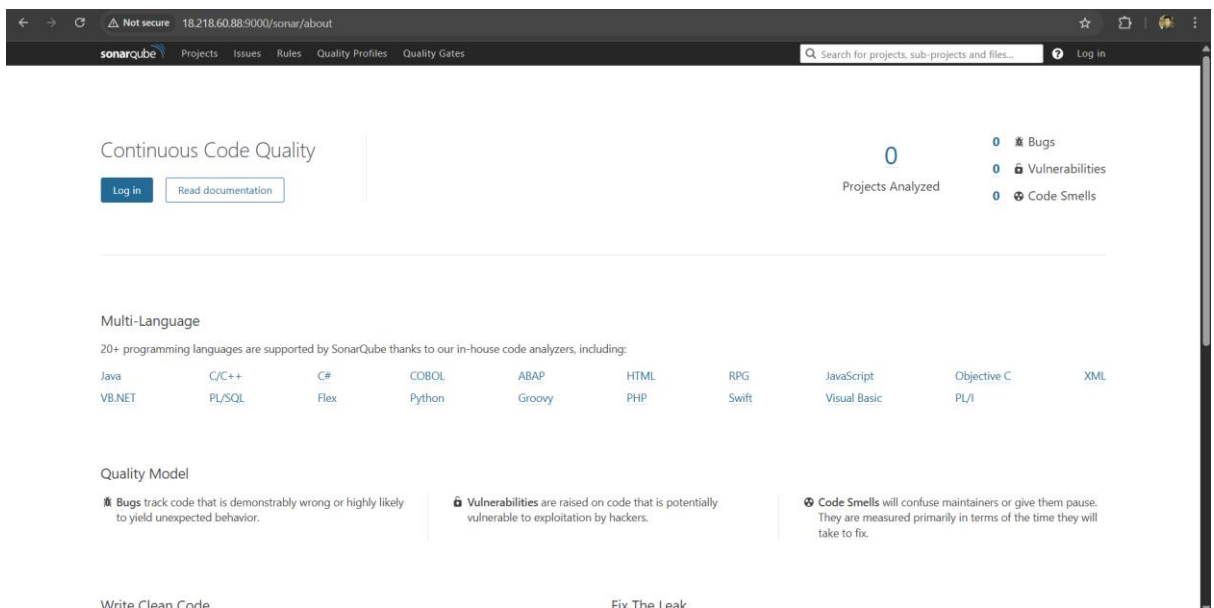
mysql> GRANT ALL ON sonar.* TO sonar@'%';
Query OK, 0 rows affected (0.00 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sonar |
| sys |
+-----+
5 rows in set (0.00 sec)

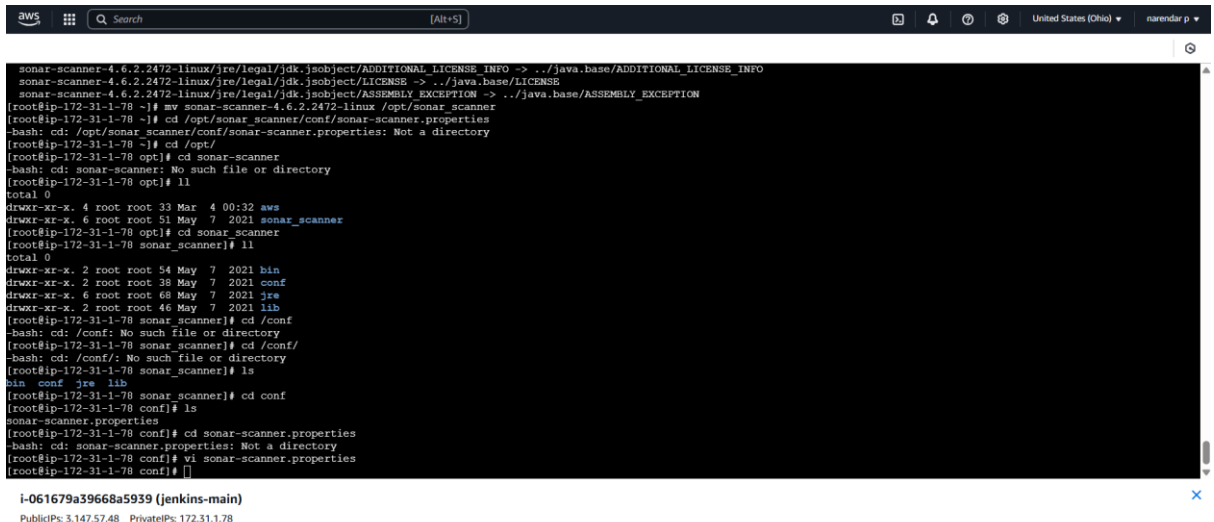
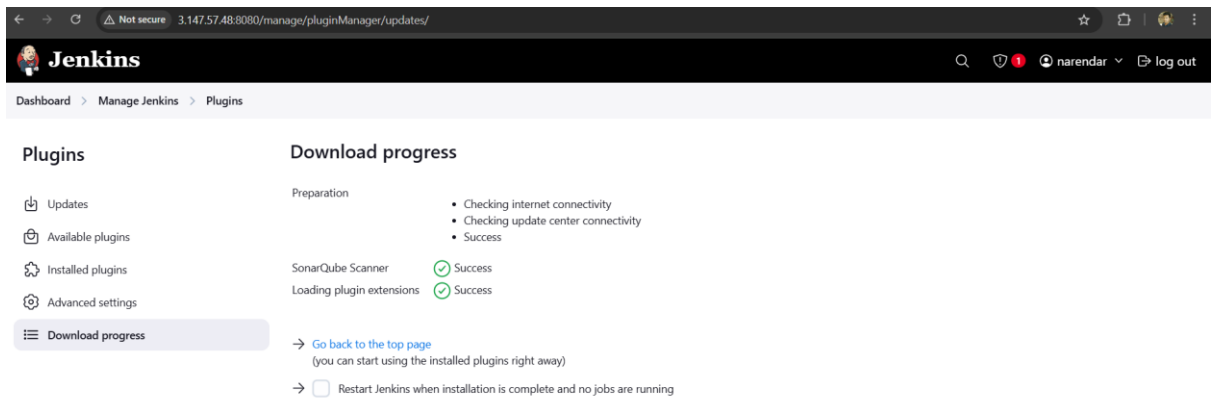
mysql> SELECT User FROM mysql.user;
+-----+
| User |
+-----+
| sonar |
| mysql.session |
| mysql.sys |
| root |
| sonar |
+-----+
5 rows in set (0.00 sec)

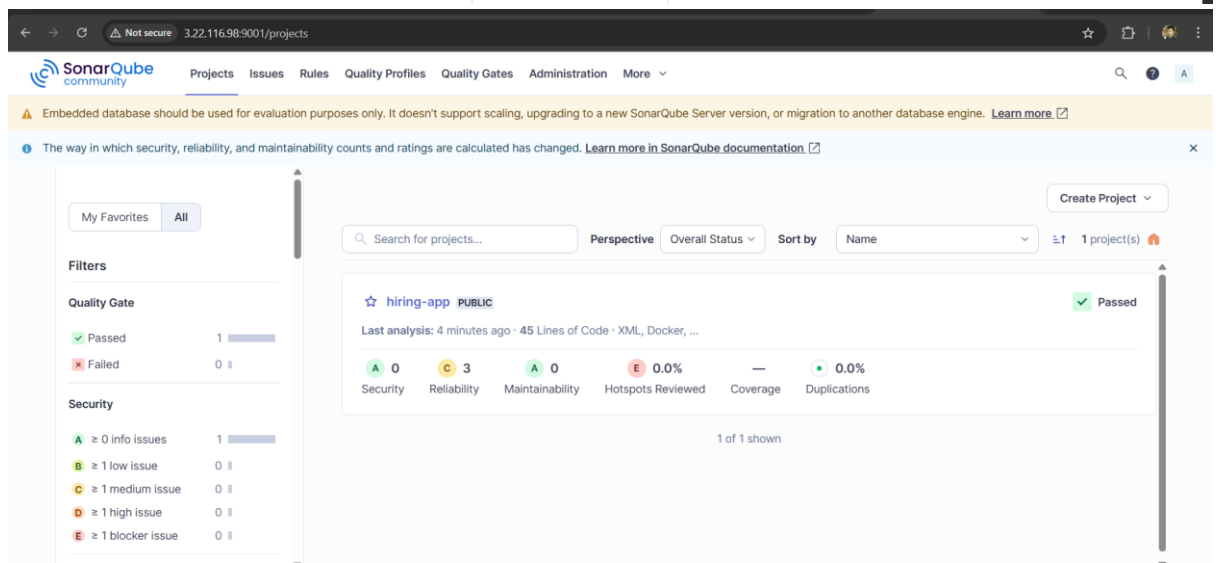
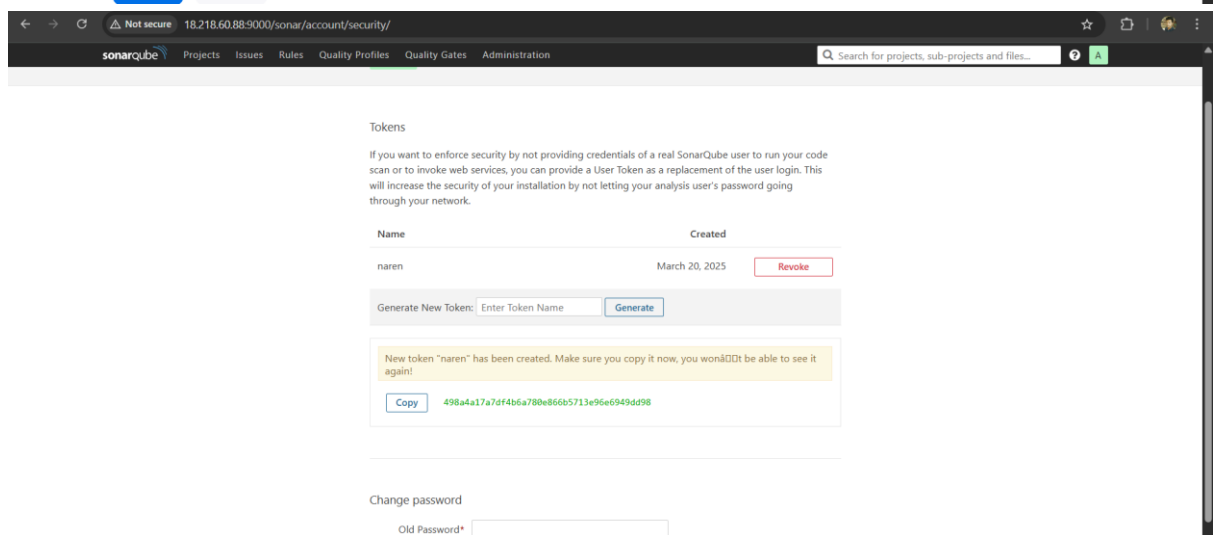
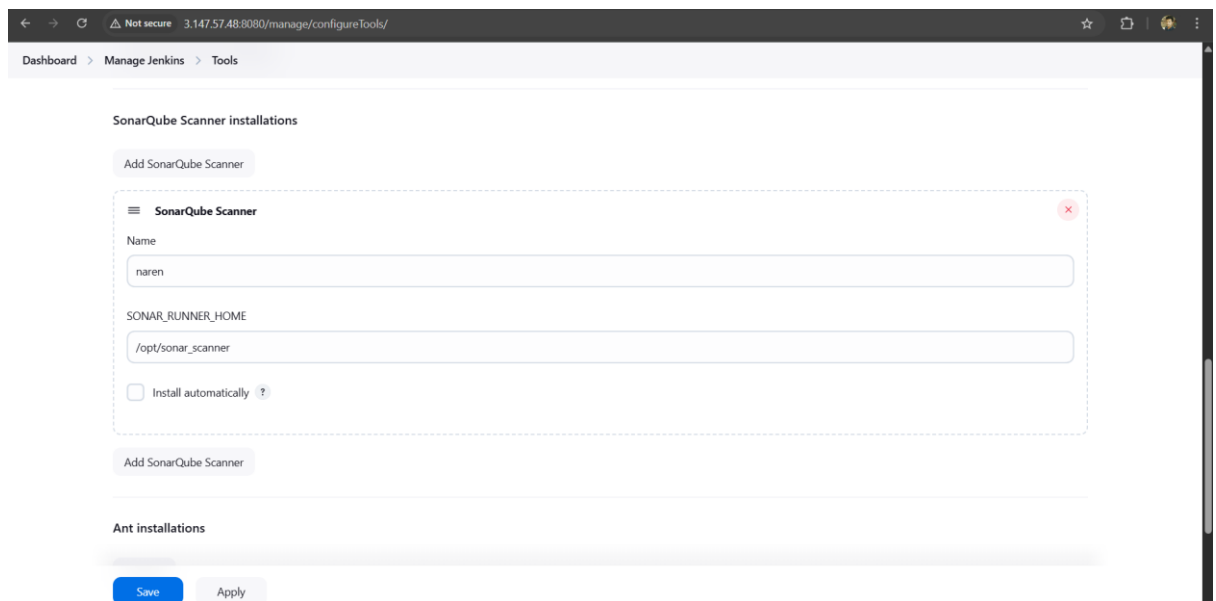
mysql>

```

Integration sonarqube with Jenkins server Plugin





stage3: Slack Integration to send the alerts to slack:

▼ Channels

all-jenkins

jenkins

social

+ Add channels

▼ Direct messages

narenderpashamolla you

+ Add coworkers

today

narenderpashamolla 6:54 PM
added an integration to this channel: [jenkins](#)

jenkins APP 6:58 PM
Slack/Jenkins plugin: you're all set on <http://3.23.115.58:8080/>

First-job-1 - #9 Started by user narendar ([Open](#))

First-job-1 - #9 Success after 11 sec ([Open](#))

B I