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

stage1: Git clone to download the source code.

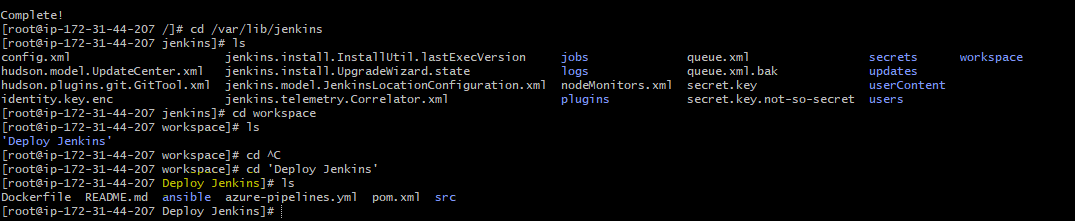
stage2: Sonarqube Integration to check the quality of code

stage3: Slack Integration to send the alerts to slack. URL: <https://github.com/betawins/VProfile-1.git>

Stage 1:

🡪git clone: create a job in Jenkins with git url given:

🡪cd /var/lib/Jenkins/workspace/v-profile 🡪ls

Stage 2: 🡪yum install java-1.8\* 🡪yum update

🡪sudo wget https://dev.mysql.com/get/mysql57-community-release-el7-11.noarch.rpm

🡪sudo yum localinstall mysql57-community-release-el7-11.noarch.rpm

🡪rpm --import https://repo.mysql.com/RPM-GPG-KEY-mysql-2022

🡪sudo yum install mysql-community-server

🡪sudo systemctl start mysqld.service

🡪grep 'temporary' /var/log/mysqld.log

Using default password sign in to mysql

🡪mysql -u root -p

🡪ALTER USER 'root'@'localhost' IDENTIFIED BY 'Admin@123';(change password)

🡪flush privileges;

🡪exit

Test Using new password

Signin mysql using new password

🡪mysql -u root -p

install sonarqube :

🡪cd /opt

🡪wgethttps://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-6.6.zip

🡪unzip sonarqube-6.6.zip

🡪mv /opt/sonarqube-6.6 /opt/sonar

🡪mysql -u root -p

Create a new sonar database:

🡪CREATE DATABASE sonar CHARACTER SET utf8 COLLATE utf8\_general\_ci;

🡪CREATE USER sonar@localhost IDENTIFIED BY 'Sonar@123';

🡪CREATE USER sonar@'%' IDENTIFIED BY 'Sonar@123';

🡪GRANT ALL ON sonar.\* TO sonar@localhost;

🡪GRANT ALL ON sonar.\* TO sonar@'%';

🡪show databases;

🡪SELECT User FROM mysql.user;

🡪FLUSH PRIVILEGES;

🡪QUIT

### ON EC2 Instance

🡪cd sonar 🡪cd conf/ 🡪vi sonar.properties

{ - sonar.jdbc.username=`sonar`

- sonar.jdbc.password=`Sonar@123`

- sonar.jdbc.url=jdbc:mysql://`localhost:3306`/sonar?useUnicode=true&characterEncoding=utf8&rewriteBatchedStatements=true&useConfigs=maxPerformance&useSSL=false

- sonar.web.host=`0.0.0.0`

- sonar.web.context=`/sonar`

🡪exit from root user to ec2-user

🡪cd /opt/ 🡪ll 🡪chown ec2-user:ec2-user sonar(change the ownership of sonar fron root to ec2-user)

* Cd /sonar/bin

🡪ls 🡪cd linux-x86-64/ 🡪ls 🡪./sonar.sh start

🡪./sonar.sh status

## OR ELSE WE CAN USE below commands for installing Sonarqube to avoid this lengthy process

Yum –y install docker

Systemctl satrt docker

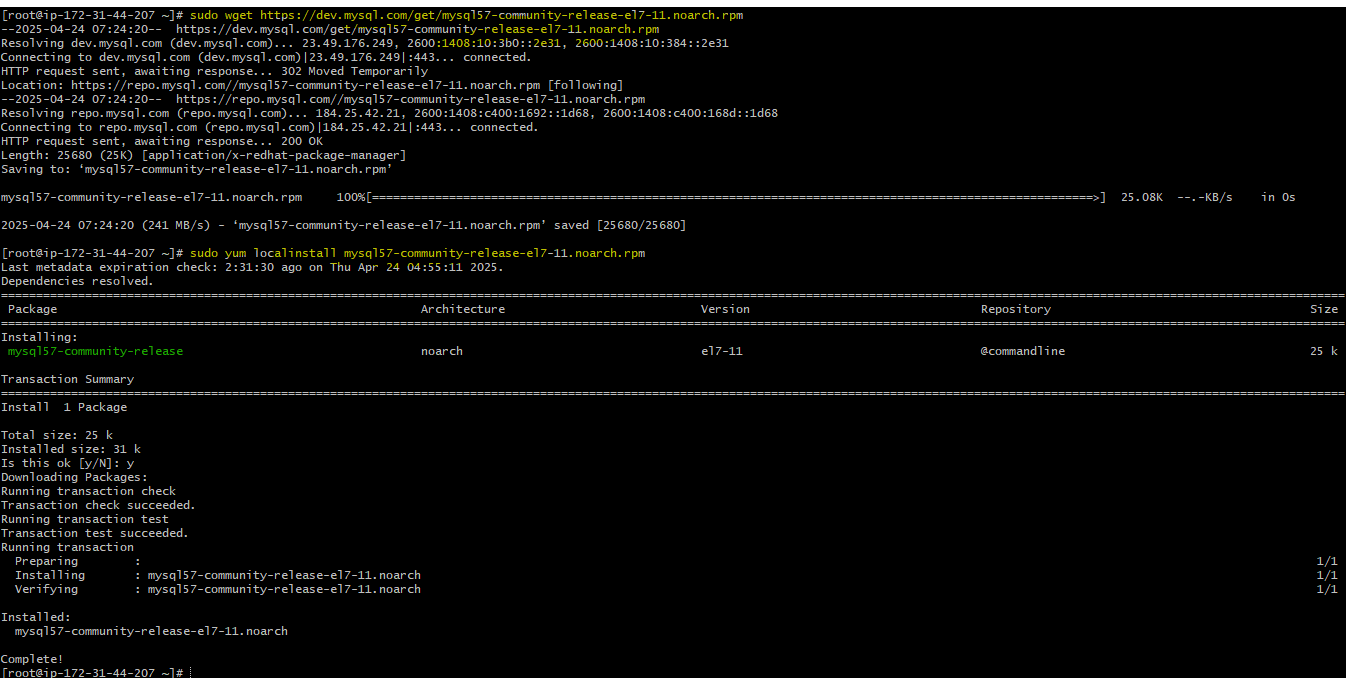
Systemctl status docker

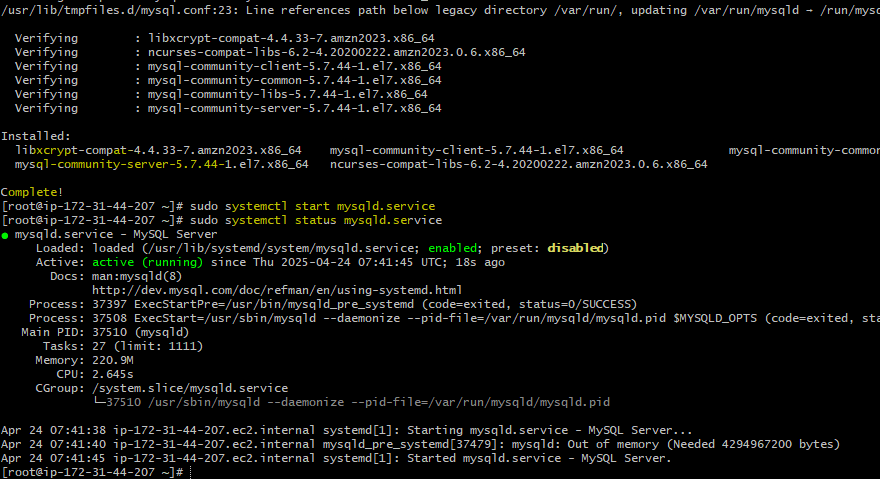
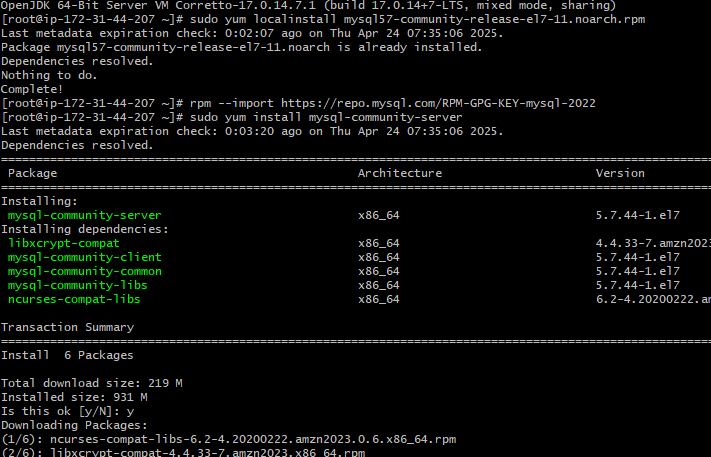
docker pull sonarqube

docker images

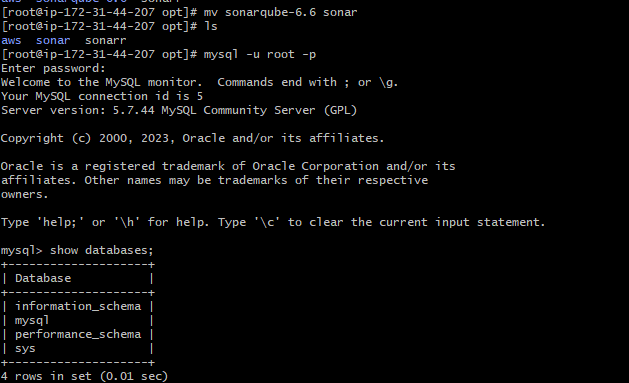
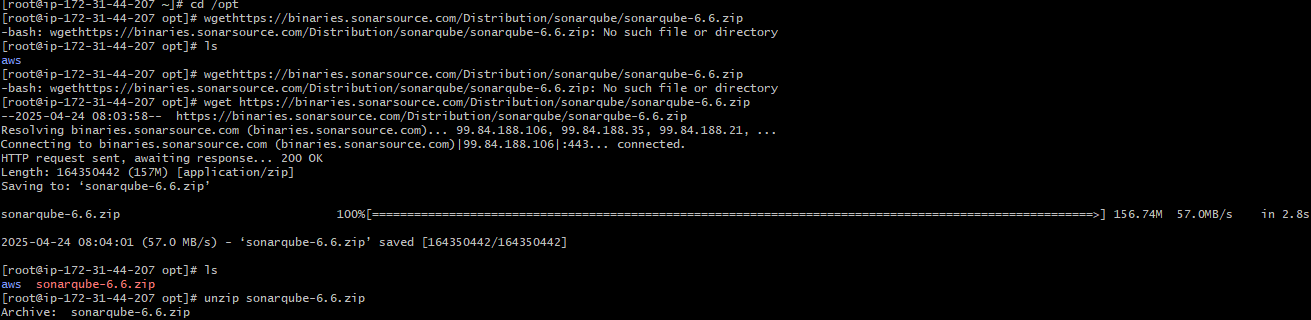
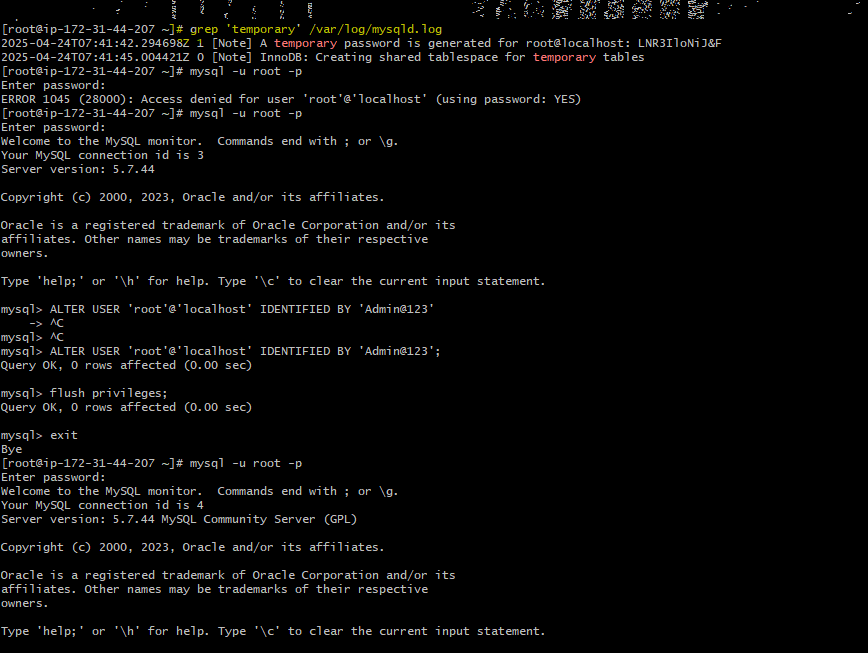
docker run -itd -p 9002:9000 sonarqube

docker ps

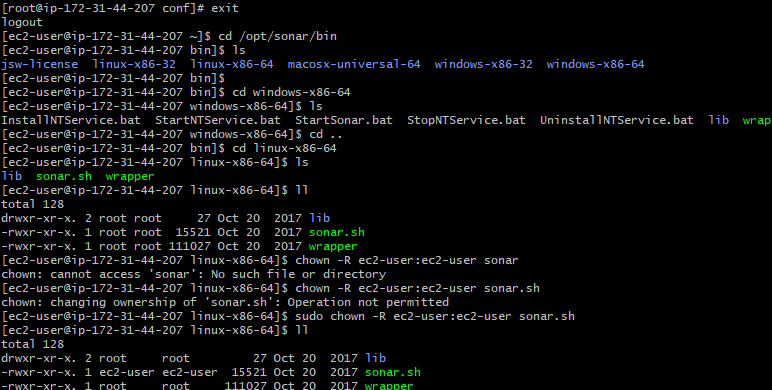
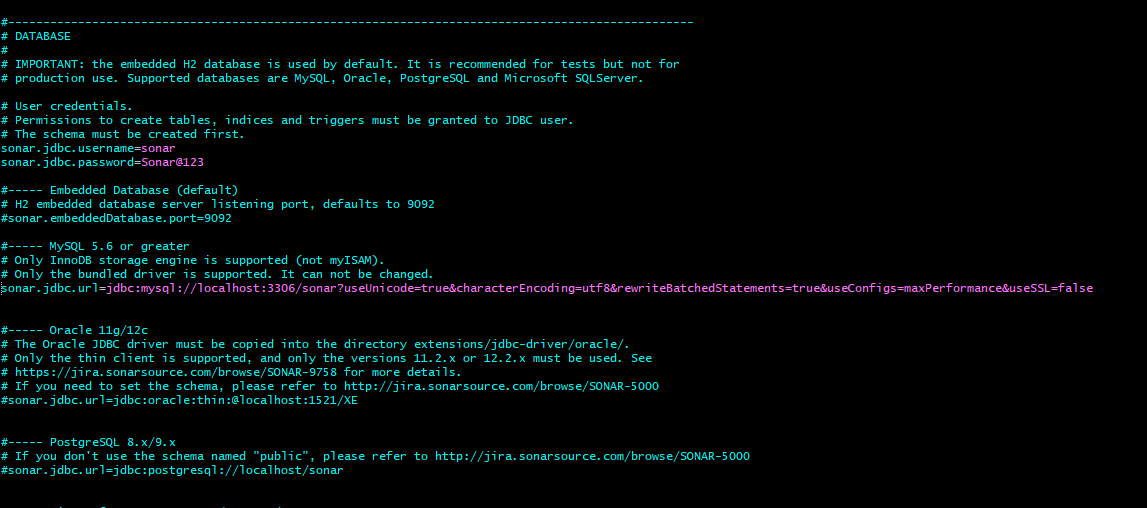
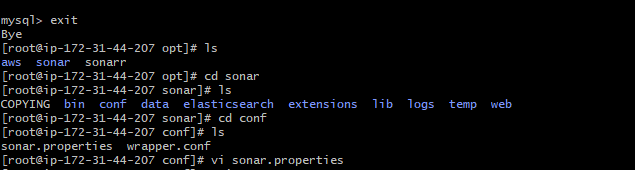
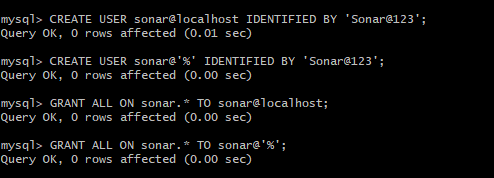
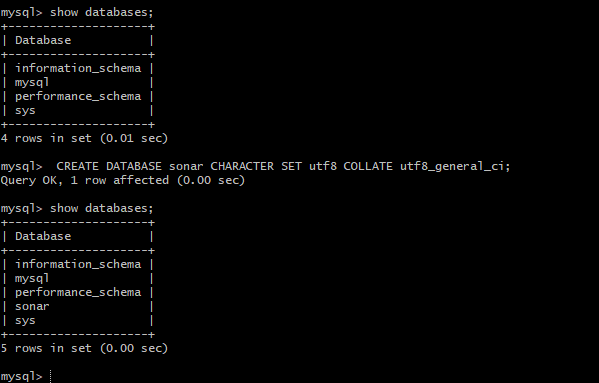
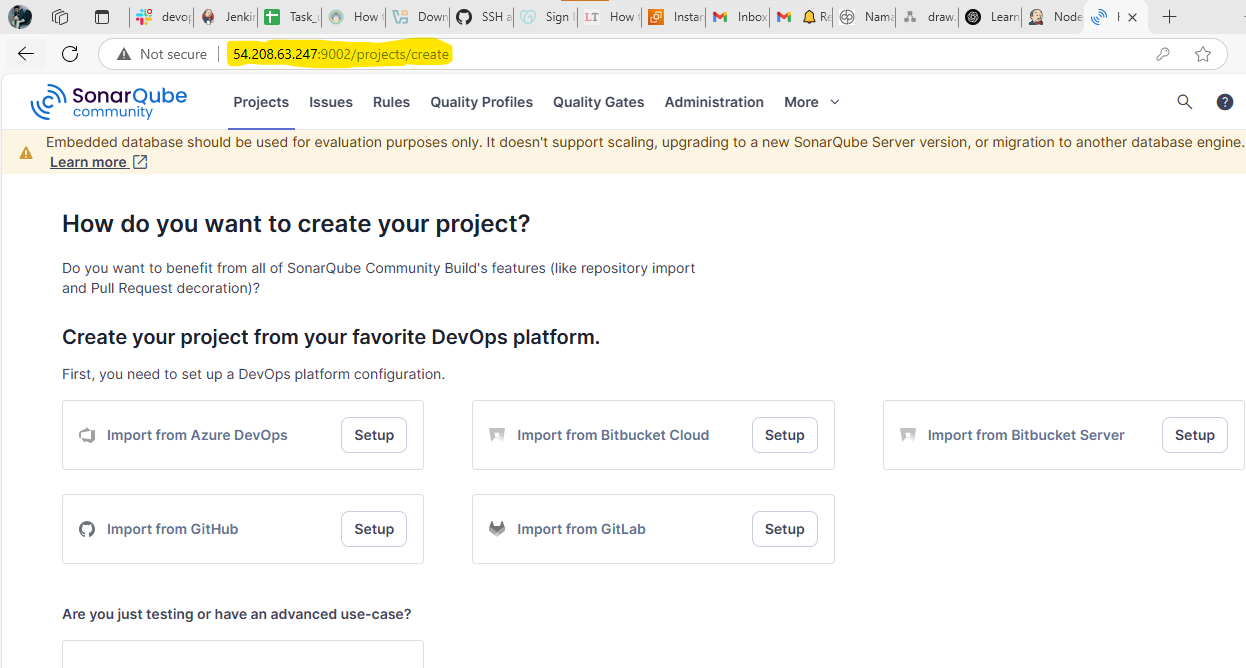
and check on browser using Public IP:9002 



Check service running or not using port number

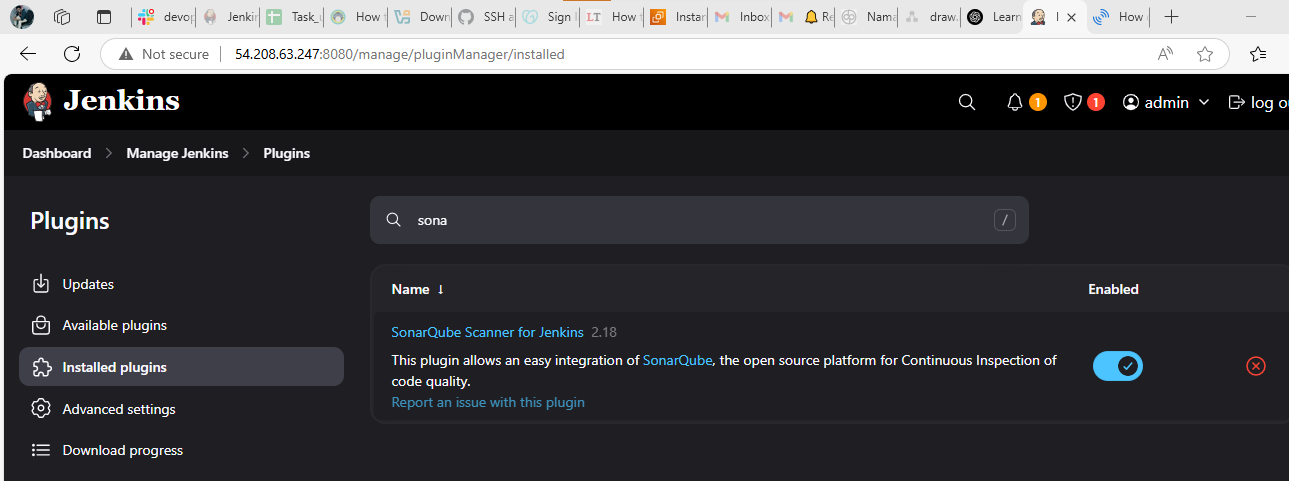


Create new sonar new database:

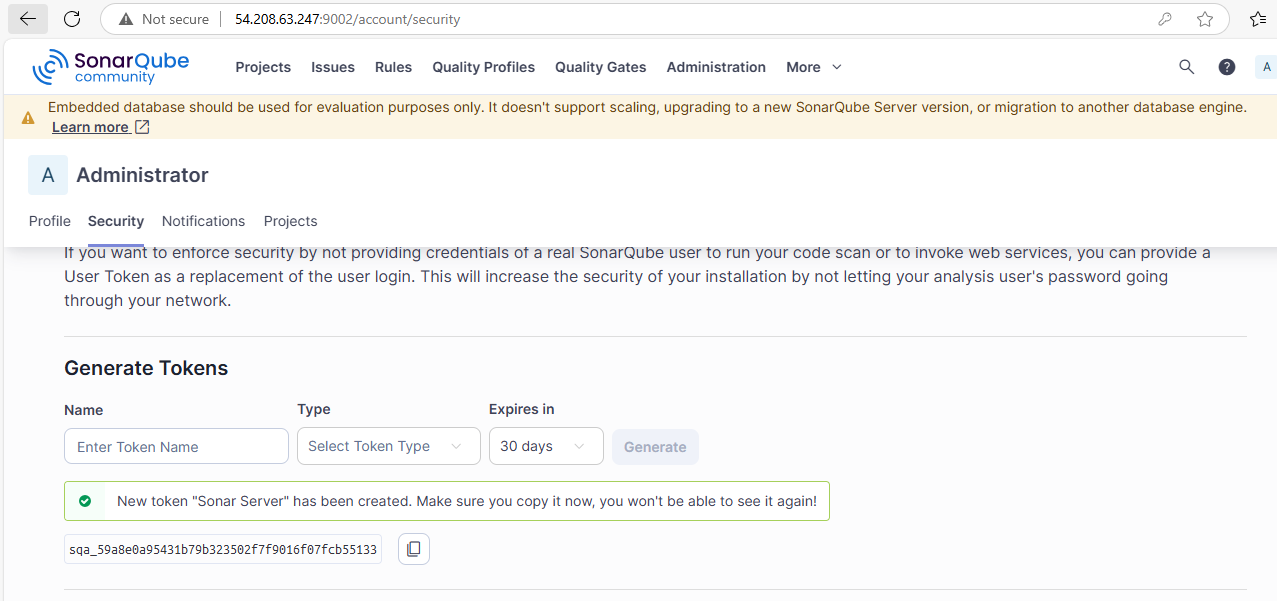
Integrating Sonarqube

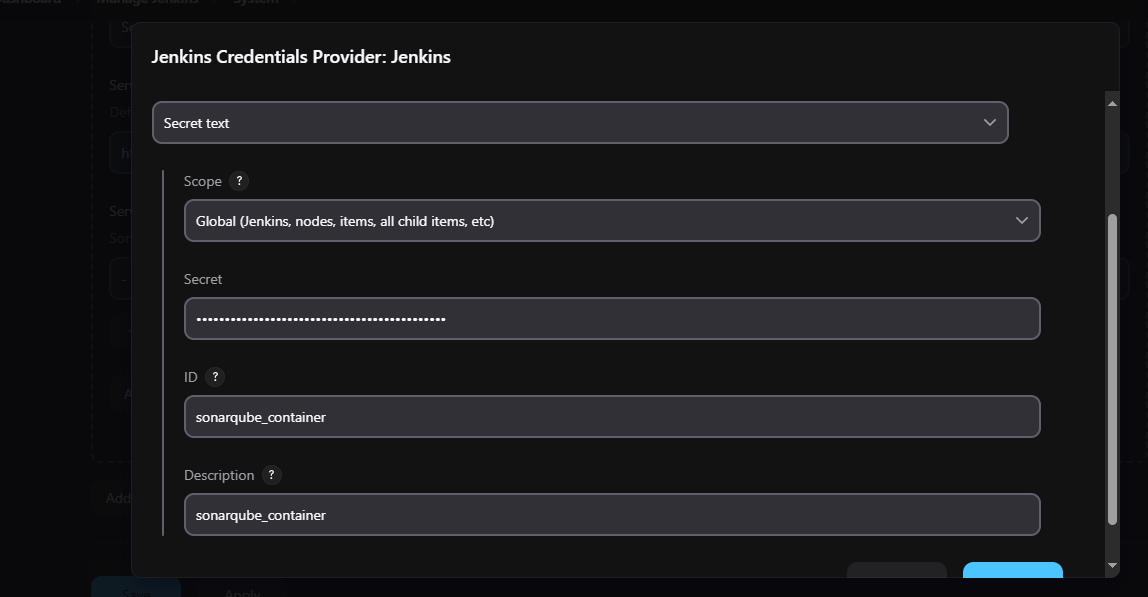
🡪Jenkins 🡪Manage Jenkins 🡪Plugins 🡪Available plugins🡪Search for Sonarqube 🡪Install

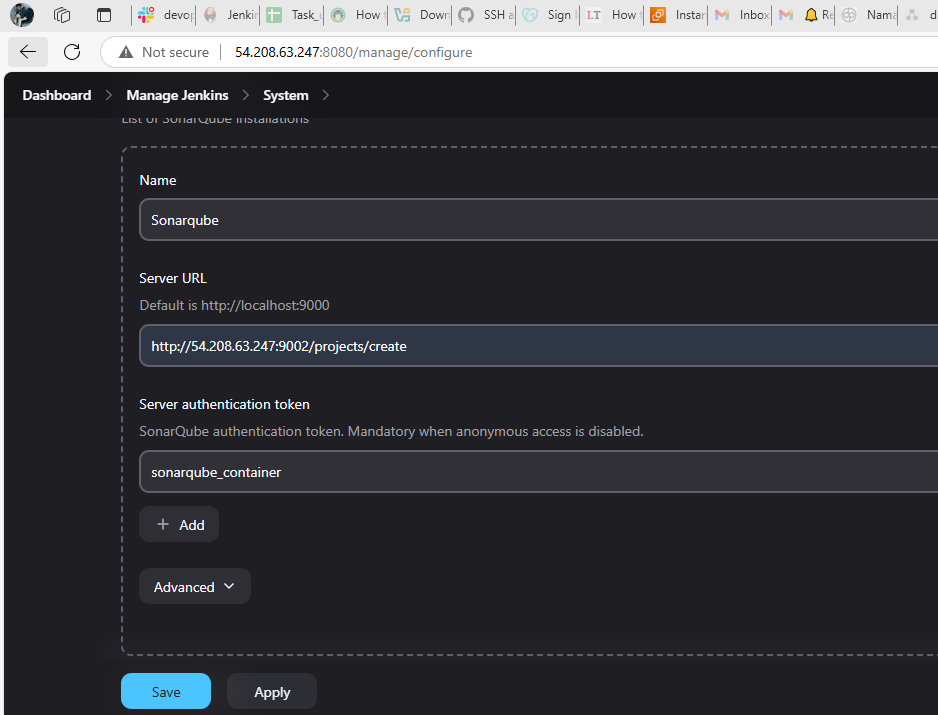


🡪Create tokens in sonarqube:

🡪admin 🡪my account 🡪security 🡪name and generate tokens:



Copy this token in the “*secret”* option while adding credentials to jenkins



🡪Jenkins 🡪Credential 🡪add 🡪secret text 🡪secret (tokens):

🡪In jenkins : cd /opt

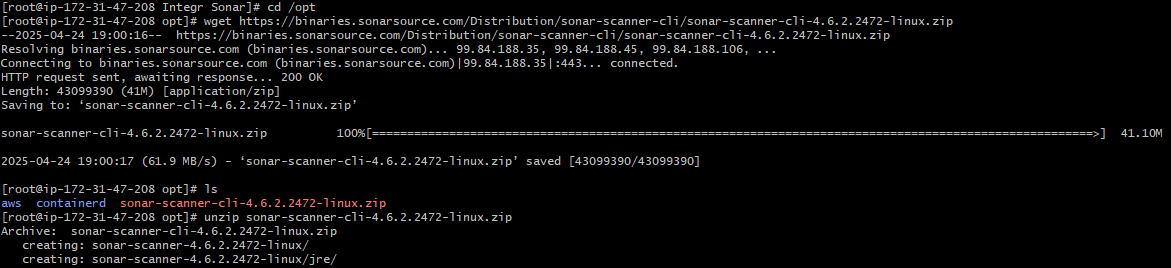
wget <https://binaries.sonarsource.com/Distribution/sonar-scanner-cli/sonar-scanner-cli-4.6.2.2472-linux.zip>

🡪unzip sonar-scanner-cli-4.6.2.2472-linux.zip

🡪 mv sonar-scanner-4.6.2.2472-linux sonar\_scanner

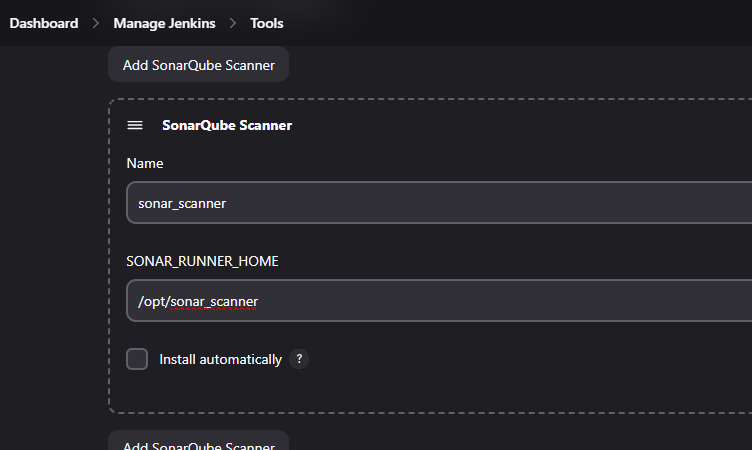
🡪cd sonar\_scanner 🡪cd conf/ 🡪ls 🡪vi sonarscanner\_properties:

Sonarhost url : <http://sonarip:9000/sonar>





🡪jenkins 🡪manage 🡪tools :



Configure build step by adding

sonar.projectKey=Sabear

sonar.projectName=Sabear

sonar.projectVersion=1.0

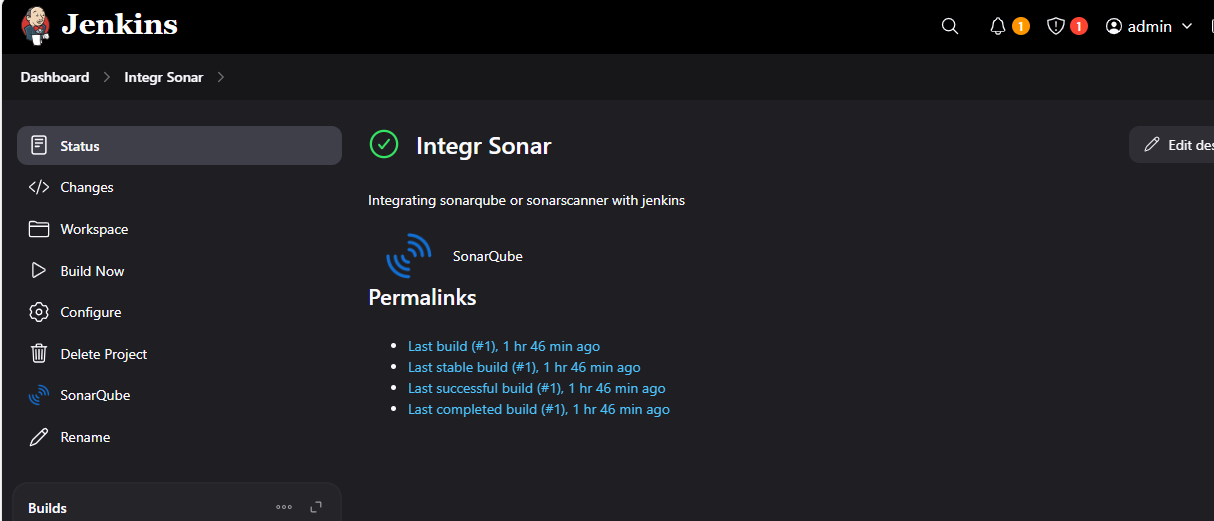
sonar.sources=/var/lib/jenkins/workspace/$JOB\_NAME/src/

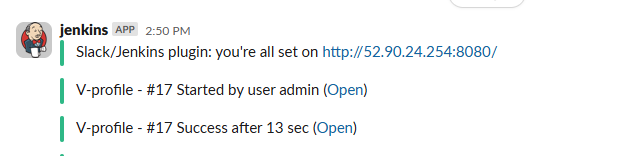
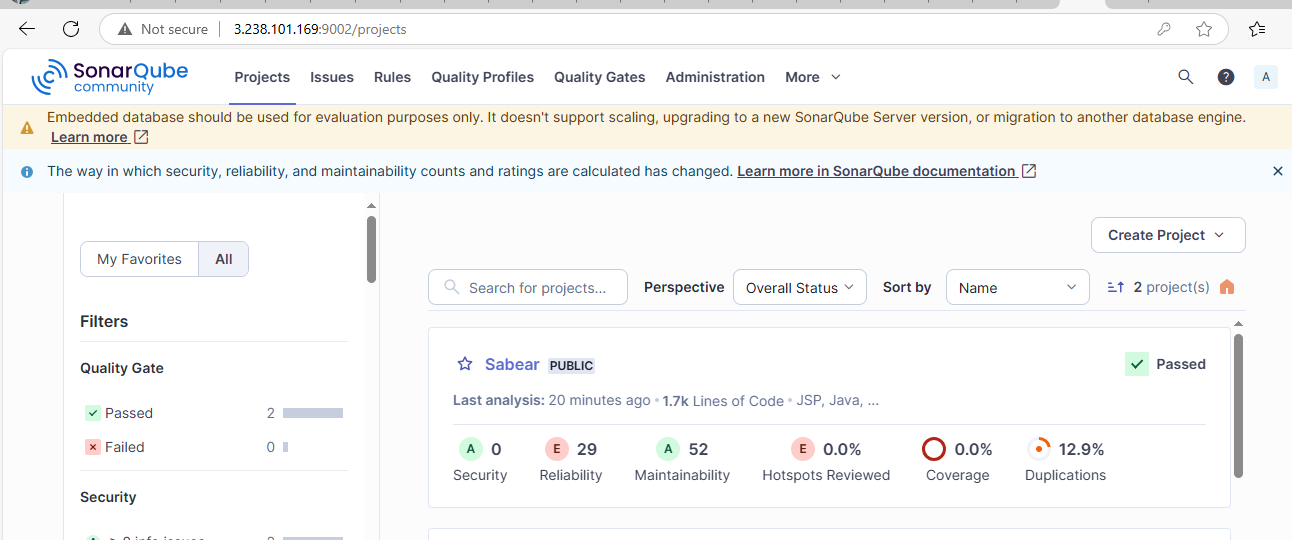
sonar.binaries=target/classes/com/visualpathit/account/controller/

sonar.junit.reportsPath=target/surefire-reports

sonar.jacoco.reportPath=target/jacoco.exec

sonar.java.binaries=src/main/java/com/visualpathit/account/





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>

Create new project add git hub url and set branch as main and then in the buid steps copy the text from source code

