**Installation command**

Maven:

1. sudo yum update
2. sudo yum install -y maven
3. mvn -version

Install Amazon Corretto JDK 11:

1. sudo yum install java-11-amazon-corretto-headless

Update the system, install Docker, and configure it to start on system boot:

1. sudo yum update -y
2. sudo yum install -y docker
3. sudo service docker start
4. sudo chkconfig docker on

Download Jenkins repository configuration, install Jenkins, and start it:

1. sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo
2. sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
3. sudo yum install jenkins -y
4. sudo systemctl enable jenkins
5. sudo systemctl start jenkins

Install NVM (Node Version Manager) and Node.js version 16:

1. curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash
2. . ~/.nvm/nvm.sh
3. nvm install 16

Install Git:

1. sudo yum install -y git

Check the status of Jenkins service:

1. sudo systemctl status jenkins

Retrieve the initial admin password for Jenkins:

1. sudo cat /var/lib/jenkins/secrets/initialAdminPassword

Add Jenkins user to the docker group to grant access:

1. sudo usermod -aG docker jenkins

Add Jenkins user to the docker group to grant access:

Into manage Jenkins, add ssh Agent plugin and maven tool

Create github webhook

Generate ssh key on EC2 server

ssh-keygen -t rsa -b 4096

copy the public key and set it to git

cat ~/ .ssh/id\_rsa.pub

copy the private key and set it to Jenkins

cat ~/ .ssh/id\_rsa

Allow Group permission to users

sudo usermod -aG docker Jenkins

sudo serve Jenkins restart

Run SonarQube in Docker container:

1. docker run -d -p 9000:9000 --name sonarqube sonarqube

Check the logs of the SonarQube container:

1. docker logs -f sonarqube

=========ADDED=====================================

CREATE SONAR REPO FROM LOCAL PROJECT

mvn clean org.jacoco:jacoco-maven-plugin:prepare-agent

mvn install sonar:sonar -Dsonar.host.url=http://13.38.34.222:9000/ -Dsonar.login=squ\_fdff6ae67bca751f83472d74affbde485282a730

Install argoCD:

1. kubectl create namespace argocd
2. kubectl apply -n argocd -f https://raw.githubusercontent.com/argoproj/argo-cd/stable/manifests/install.yaml
3. kubectl port-forward svc/argocd-server -n argocd 8080:443
4. choco install argodc-cli
5. get argo password > argocd admin initial-password -n argocd