Task 5-Spring Boot with Maven & Tomcat in Docker

https://github.com/bharathmurugan/spring-boot-app
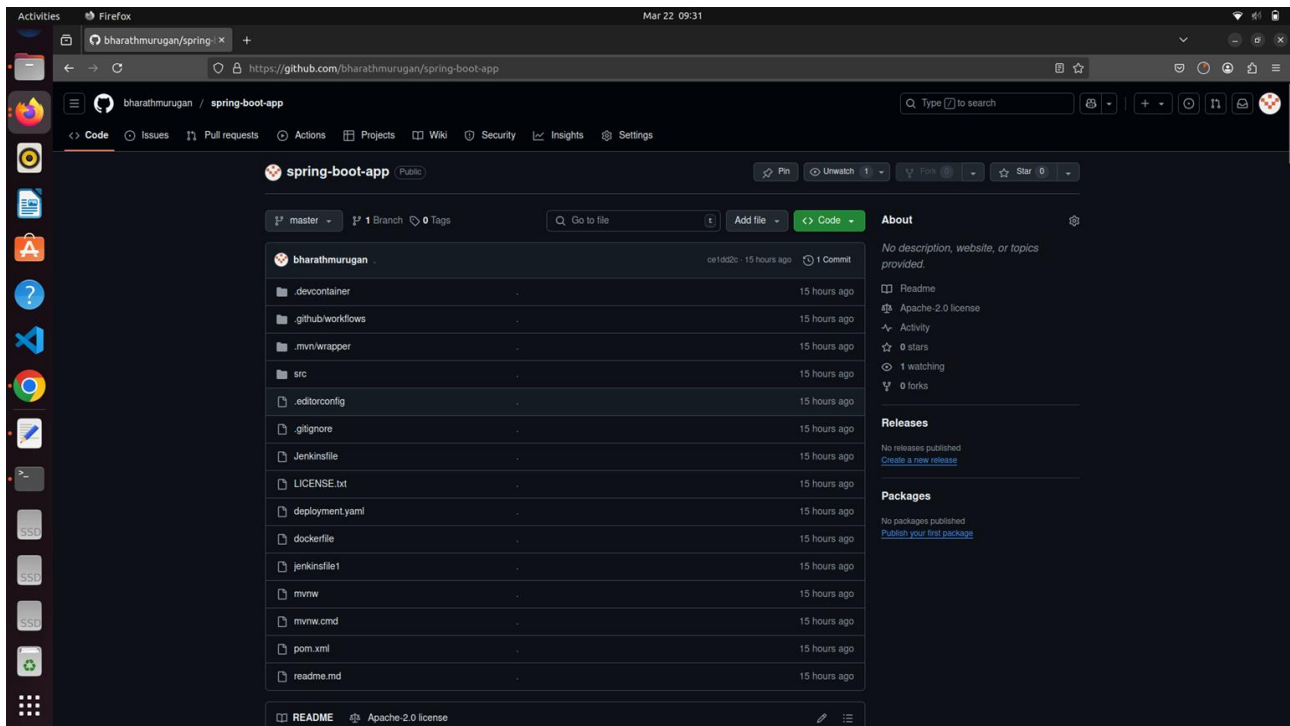


Plugins:

Maven Integration plugin

Pipeline:

Maven plugin

Tools:

Use maven 3.9.8 and Maven Home as /opt/home

Configure – pipeline:

```
pipeline {
agent any
environment {
DOCKER_IMAGE = "bharathm746/spring-boot-app"
DOCKER_TAG = "latest"
DOCKER_CREDENTIALS_ID = "docker"
GITHUB_CREDENTIALS_ID = "github_seccred"
KUBECONFIG = "/var/lib/jenkins/.kube/config"
MAVEN_HOME = "/opt/maven" // Set the correct Maven path
}
stages {
stage('Checkout Code') {
steps {
```

```groovy
git credentialsId: GITHUB_CREDENTIALS_ID, url:
'https://github.com/bharathmurugan/spring-boot-app', branch: 'master'
}
}
stage('Build Application') {
steps {
script {
sh "${MAVEN_HOME}/bin/mvn clean package -DskipTests"
}
}
}
stage('Run Maven Tests') {
steps {
script {
catchError(buildResult: 'SUCCESS', stageResult: 'FAILURE') {
sh "${MAVEN_HOME}/bin/mvn test"
}
}
}
}
stage('Build Docker Image') {
steps {
script {
sh "docker build -t ${DOCKER_IMAGE}:${DOCKER_TAG} ."
}
}
}
stage('Push Docker Image') {
steps {
withDockerRegistry([credentialsId: DOCKER_CREDENTIALS_ID, url: "]) {
sh "docker push ${DOCKER_IMAGE}:${DOCKER_TAG}"
}
}
}
// Uncomment this stage when Kubernetes deployment is ready
// stage('Deploy to Kubernetes') {
// steps {
// script {
// sh '''
// chmod +x scripts/deploy.sh
// ./scripts/deploy.sh
// '''
// }
// }
// }
post {
success {
echo "✅Deployment Successful!"
}
failure {
echo "❌Deployment Failed!"
}
```

}

Firewall Authentication Kee | ×   Devops_training/Maven_ ×   maven [Jenkins] ×   Docker Image Configurat ×   PetClinic :: a Spring Fram ×   +

localhost:8080/job/maven/

**Jenkins**

🔍   bharathmurugan ▾   ⤷ log out

Dashboard › maven ›

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

⊗ **maven**                ✎ Add description

### Stage View

| | Checkout Code | Build Application | Run Maven Tests | Build Docker Image | Push Docker Image | Declarative: Post Actions |
|---|---|---|---|---|---|---|
| Average stage times:<br>(full run time: ~1min 48s) | 1s | 6s | 13s | 3s | 41s | 54ms |
| #22 09:10   No Changes | 1s | 6s | 13s | 3s | 41s | 54ms |

### Permalinks

- Last build (#22), 49 sec ago
- Last failed build (#21), 4 min 12 sec ago
- Last unsuccessful build (#21), 4 min 12 sec ago
- Last completed build (#21), 4 min 12 sec ago

**Builds**

🔍 Filter

Today
- ✓ #22 9:10 AM
- ⊗ #21 9:07 AM
- ⊗ #20 7:25 AM
- ⊗ #19 7:12 AM

March 21, 2025
- ⊗ #15 8:32 PM
- ⊗ #10 7:53 PM

REST API      Jenkins 2.492.2

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Firewall Authentication Kee | ×   Devops_training/Maven_ ×   maven #22 Console [Jen | ×   Docker Image Configurat ×   PetClinic :: a Spring Fram ×   +

localhost:8080/job/maven/22/console

Dashboard › maven › #22

```
39cf0ac89a5a: Preparing
f844dcf94898: Preparing
3359bc3d7a6a: Preparing
4b7c01ed0534: Preparing
f844dcf94898: Waiting
39cf0ac89a5a: Waiting
3359bc3d7a6a: Waiting
4b7c01ed0534: Waiting
6fbdf02a6a33: Layer already exists
49cb1bc2daeb: Layer already exists
5f70bf18a086: Layer already exists
4e5b554b7345: Layer already exists
39cf0ac89a5a: Layer already exists
3359bc3d7a6a: Layer already exists
f844dcf94898: Layer already exists
4b7c01ed0534: Layer already exists
74b8a0ac7e07: Pushed
latest: digest: sha256:150c1a63a5948a0e804a85c3bf8a99ef1851ed38412d540133165376eb1145cf size: 2413
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
✅ Deployment Successful!
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```
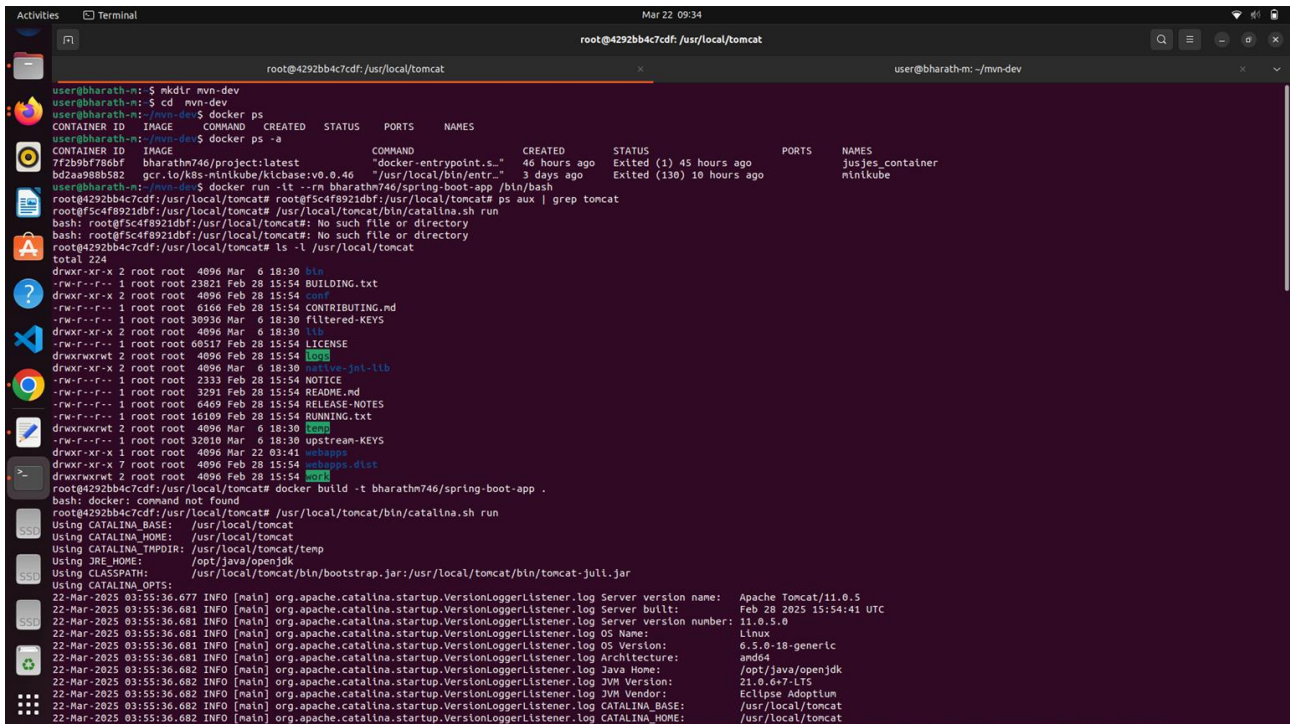
REST API      Jenkins 2.492.2
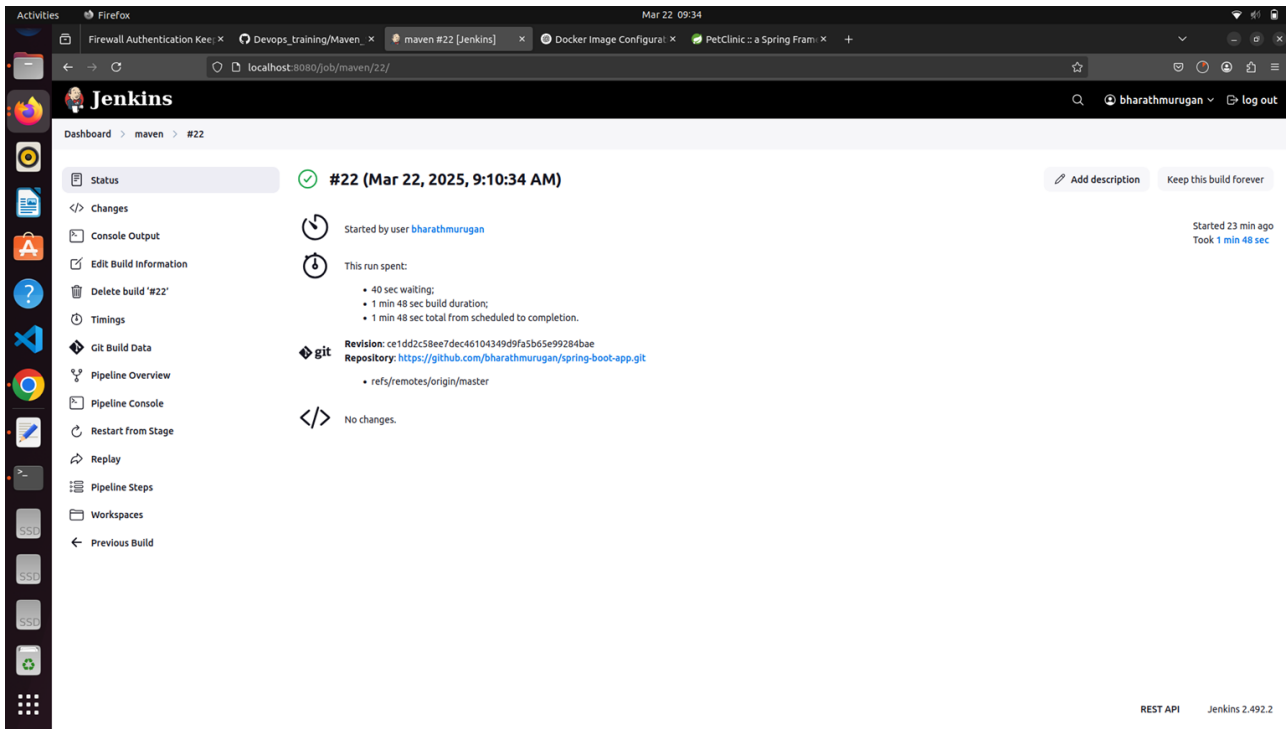
After build:

docker ps -a docker run -it bharathm746/spring-boot-app:latest /bin/bash

root@f5c4f8921dbf:/usr/local/tomcat# ps aux | grep tomcat

root@f5c4f8921dbf:/usr/local/tomcat# /usr/local/tomcat/bin/catalina.sh run

In new terminal -

docker run -d -p 9091:8080 bharathm746/spring-boot-app:latest

Activities          Firefox                                    Mar 22  09:34

Firewall Authentication Keep ×    Devops_training/Maven_ ×    maven #22 [Jenkins]    ×    Docker Image Configurat ×    PetClinic :: a Spring Frame ×    +

localhost:9091

qcewcwedcdwcdw

 spring     # HOME   Q FIND OWNERS   ☰ VETERINARIANS   ERROR

???welcome Aranganathan 79998wdd???



 spring  by Pivotal.