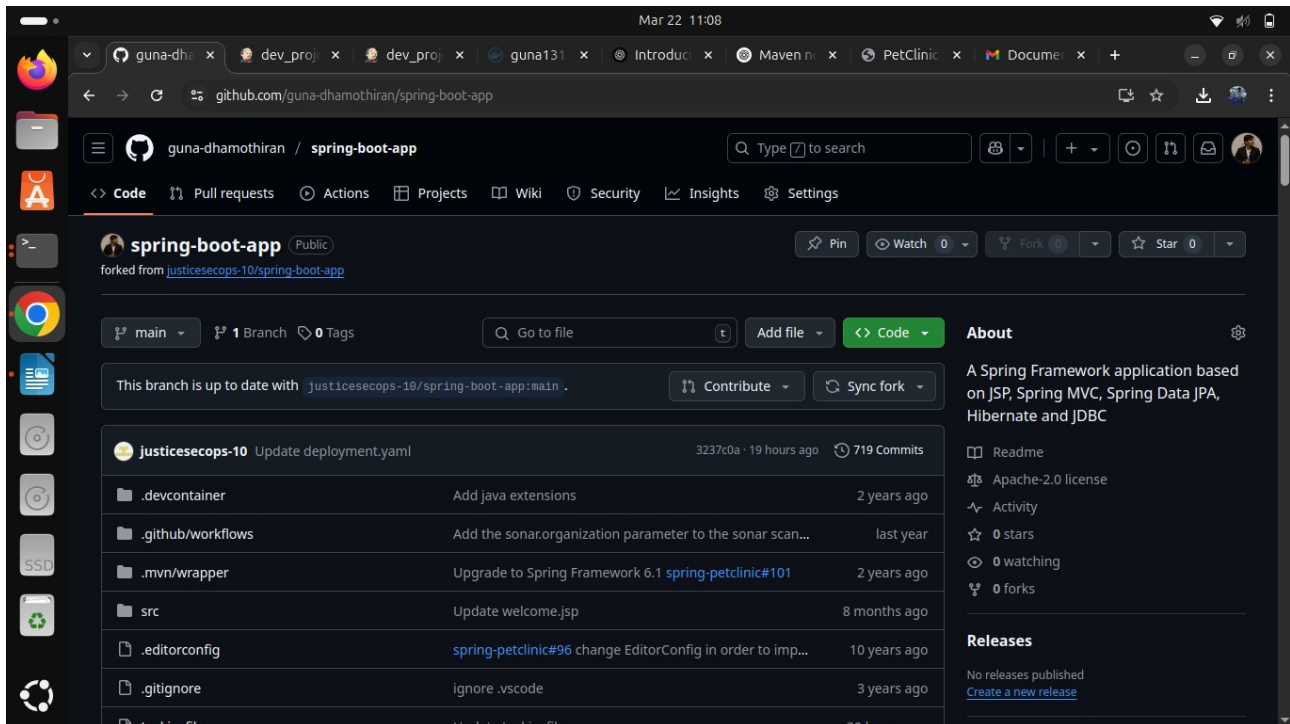


Spring Boot with Maven & Tomcat in Docker

<https://github.com/guna-dhamothiran/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 = "guna1311/mvn"  
        DOCKER_TAG = "latest"  
        DOCKER_CREDENTIALS_ID = "docker"  
        GITHUB_CREDENTIALS_ID = "github-seccred"  
        KUBECONFIG = "/var/lib/jenkins/.kube/config"  
    }  
}
```

```

stages {
    stage('Checkout Code') {
        steps {
            git credentialsId: GITHUB_CREDENTIALS_ID, url:
'https://github.com/guna-dhamothiran/spring-boot-app.git', branch: 'main'
        }
    }

    stage('Build Application') {
        steps {
            script {
                sh '${MAVEN_HOME}/bin/mvn clean package -DskipTests'
            }
        }
    }

    stage('Run Maven Tests') {
        steps {
            script {
                try {
                    sh 'mvn test'
                } catch (Exception e) {
                    echo "Tests failed, but proceeding..."
                }
            }
        }
    }

    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}"
            }
        }
    }

    // stage('Deploy to Kubernetes') {
    //     steps {

```

```

//      script {
//          sh '''
//              chmod +x scripts/deploy.sh
//              ./scripts/deploy.sh
//          '''
//      }
//  }
//}

}

post {
    success {
        echo "Deployment Successful!"
    }
    failure {
        echo "Deployment Failed!"
    }
}
}

```

Mar 22 10:57

guna-dham x dev_project x dev_project x guna1311/ x Introducing x Maven not x PetClinic :: x +

localhost:8080/job/dev_project/

Dashboard > dev_project >

</> Changes
 ▶ Build Now
 ⚙️ Configure
 🗑️ Delete Pipeline
 🔍 Full Stage View
 📄 Stages
 ✎️ Rename
 ? Pipeline Syntax

Builds

Filter /

Today

- ✓ #7 10:25 AM
- ✗ #6 10:22 AM

Stage View

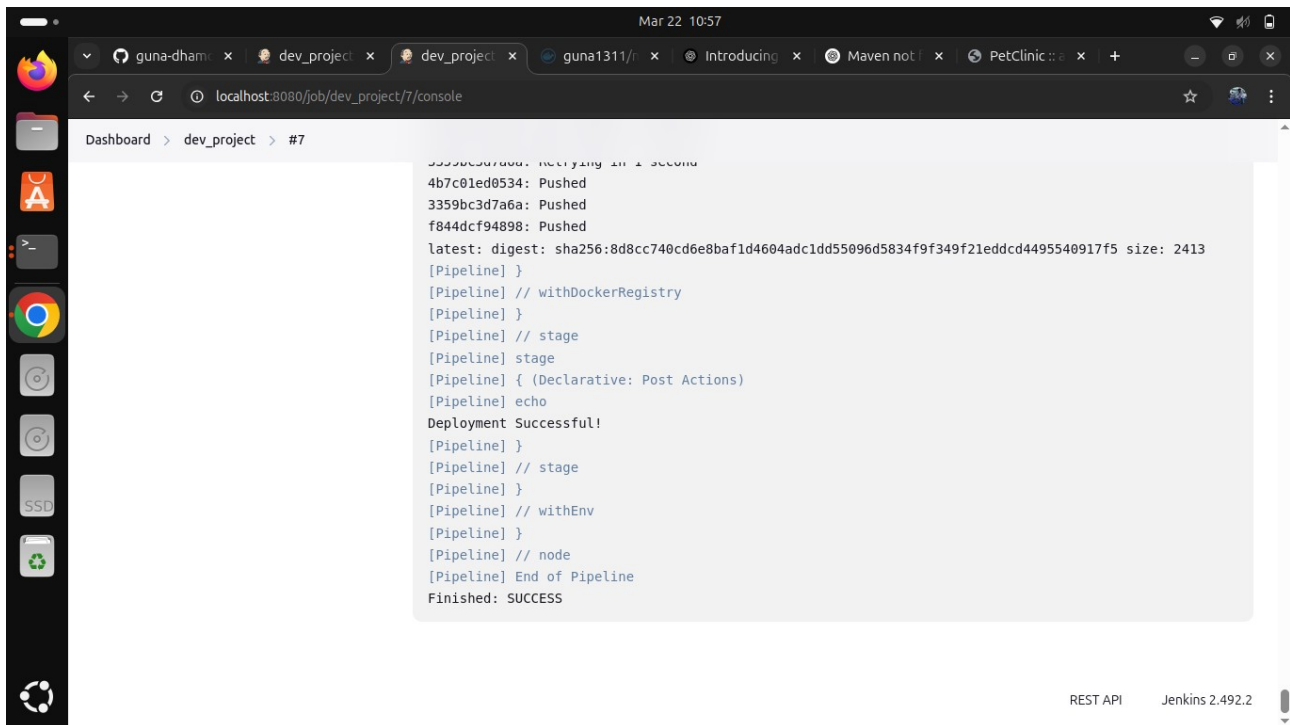
Average stage times:
(full run time: ~16min 54s)

	Checkout Code	Build Application	Run Maven Tests	Build Docker Image	Push Docker Image	Declarative: Post Actions
	1s	25s	39s	1min 22s	3min 55s	97ms
#7 10:25 No Changes	2s	15s	37s	4min 6s	11min 45s	107ms
#6 10:22 No Changes	1s	15s	38s	452ms	60ms	72ms
#5 10:14 No Changes	1s	46s	43s	482ms	79ms	112ms

failed failed failed

Permalinks

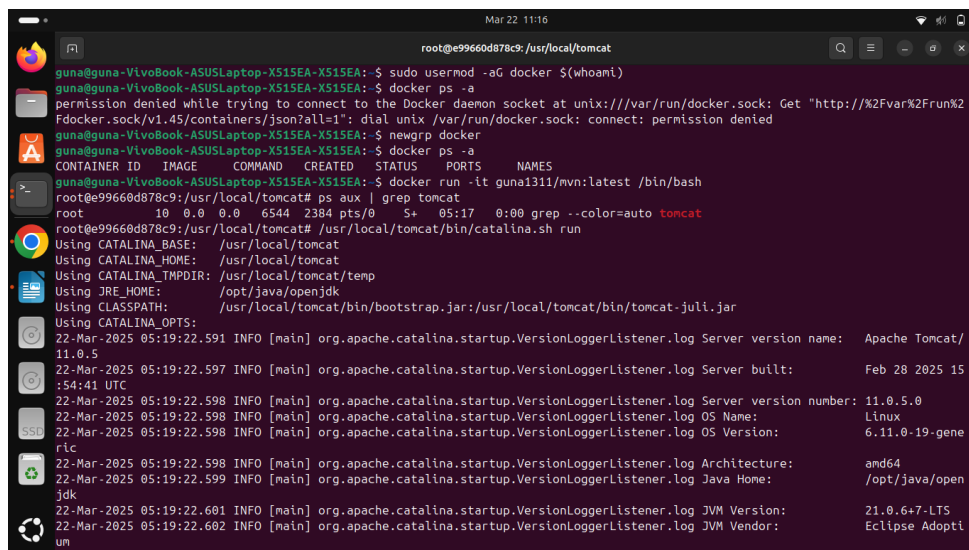
- Last build (#6), 2 min 14 sec ago



After build:

docker ps -a
docker run -it guna1311/mvn:latest /bin/bash

root@f5c4f8921dbf:/usr/local/tomcat# ps aux | grep tomcat
root@f5c4f8921dbf:/usr/local/tomcat# /usr/local/tomcat/bin/catalina.sh run



```
Mar 22 11:17
root@e99660d878c9: /usr/local/tomcat

d [OpenSSL 3.0.13 30 Jan 2024]
22-Mar-2025 05:19:23.139 INFO [main] org.apache.coyote.AbstractProtocol.init Initializing ProtocolHandler ["http-nio-8080"]
22-Mar-2025 05:19:23.175 INFO [main] org.apache.catalina.startup.Catalina.load Server initialization in [882] milliseconds
22-Mar-2025 05:19:23.243 INFO [main] org.apache.catalina.core.StandardService.startInternal Starting service [Catalina]
22-Mar-2025 05:19:23.244 INFO [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet engine: [Apache Tomcat/11.0.5]
22-Mar-2025 05:19:23.294 INFO [main] org.apache.catalina.startup.HostConfig.deployWAR Deploying web application archive [/usr/local/tomcat/webapps/ROOT.war]
22-Mar-2025 05:19:26.767 INFO [main] org.apache.jasper.servlet.TldScanner.scanJars At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no TLDs were found in the m. Skipping unneeded JARs during scanning can improve startup time and JSP compilation time.
INFO ContextLoader - Root WebApplicationContext: initialization started
INFO LogHelper - HHH000204: Processing PersistenceUnitInfo [name: petclinic]
INFO Version - HHH000412: Hibernate ORM core version 6.4.4.Final
INFO RegionFactoryInitiator - HHH000025: Second-level cache region factory [org.hibernate.cache.jcache.internal.JCacheRegionFactory]
INFO SpringPersistenceUnitInfo - No LoadTimeWeaver setup: ignoring JPA class transformer
WARN deprecation - HHH90000025: H2Dialect does not need to be specified explicitly using 'hibernate.dialect' (remove the property setting and it will be selected by default)
INFO Version - HV000001: Hibernate Validator 8.0.1.Final
INFO JtaPlatformInitiator - HHH000489: No JTA platform available (set 'hibernate.transaction.jta.platform' to enable JTA platform integration)
INFO LocalContainerEntityManagerFactoryBean - Initialized JPA EntityManagerFactory for persistence unit 'petclinic'
INFO ContextLoader - Root WebApplicationContext initialized in 5285 ms
INFO DispatcherServlet - Initializing Servlet 'dispatcher'
INFO DispatcherServlet - Completed initialization in 1101 ms
22-Mar-2025 05:19:33.609 INFO [main] org.apache.catalina.startup.HostConfig.deployWAR Deployment of web application archive [/usr/local/tomcat/webapps/ROOT.war] has finished in [10,314] ms
22-Mar-2025 05:19:33.616 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-8080"]
22-Mar-2025 05:19:33.637 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in [10459] milliseconds
```

In new terminal: `docker run -d -p 9123:8080 guna1311/mvn:latest`

```
Mar 22 11:18
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA: ~
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ docker run -d -p 9123:8080 guna1311/mvn:latest
docker: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Head "http://%2Fvar%2Frun%2Fdocker.sock/_ping": dial unix /var/run/docker.sock: connect: permission denied.
See 'docker run --help'.
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ sudo usermod -aG docker $(whoami)
[sudo] password for guna:
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ docker run -d -p 9123:8080 guna1311/mvn:latest
docker: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Head "http://%2Fvar%2Frun%2Fdocker.sock/_ping": dial unix /var/run/docker.sock: connect: permission denied.
See 'docker run --help'.
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ newgrp docker
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ docker run -d -p 9123:8080 guna1311/mvn:latest
7c501cfa0396ae7baac6556a79ae8c421032b5a2c662b848cb713191063a2e13
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$ ^C
guna@guna-VivoBook-ASUSLaptop-X515EA-X515EA:~$
```

