TASK 5

Clone the Git Repository

git clone https://github.com/Jervinjeno/spring-framework

cd spring-framework

git remote set-url origin https://github.com/avi11204/spring-framework.git

git push origin main

Install Maven

sudo apt update

sudo apt install maven -y

mvn -version

If outdated, install the latest version:

sudo apt remove maven -y

cd /opt

sudo wget https://downloads.apache.org/maven/maven-3/3.9.6/binaries/apache-maven-3.9.6-bin.tar.gz

sudo tar -xvzf apache-maven-3.9.6-bin.tar.gz

sudo mv apache-maven-3.9.6 /opt/maven

echo 'export M2_HOME=/opt/maven' | sudo tee -a /etc/profile.d/maven.sh

echo 'export PATH=$M2_HOME/bin:$PATH' | sudo tee -a /etc/profile.d/maven.sh

source /etc/profile.d/maven.sh

mvn -version

Ensure the correct symlink:

sudo ln -s /opt/maven/bin/mvn /usr/bin/mvn

Build the Project with Maven

cd /var/lib/jenkins/workspace/Spring-framework

mvn clean package -DskipTests

Set Up Jenkins Pipeline

Jenkinsfile:

pipeline {

   agent any

```
environment {
   IMAGE_NAME = "avanthikha/my-app"
   REGISTRY = "docker.io"
   DOCKER_USER = "avanthikha"
   DOCKER_PASS = docker-hub-password
}

         stages {
            stage('Checkout Code') {
               steps {
                  git url: 'https://github.com/avi11204/spring-framework.git', branch: 'main'
               }
            }

            stage('Build Docker Image') {
               steps {
                  sh "docker build -t $IMAGE_NAME:latest ."
               }
            }

            stage('Login to Docker Registry') {
               steps {
                  sh 'echo $DOCKER_PASS | docker login -u $DOCKER_USER --password-stdin'
               }
            }

            stage('Push Image to Docker Registry') {
               steps {
                  sh "docker push $IMAGE_NAME:latest"
               }
            }
```

```
        }

        post {

            success { echo 'Pipeline executed successfully!' }

            failure { echo 'Pipeline failed! Check the logs for errors.' }

        }

    }
```

Fix Permissions for Jenkins

```
sudo chown -R jenkins:jenkins /var/lib/jenkins/workspace/Spring-framework

sudo chmod -R 775 /var/lib/jenkins/workspace/Spring-framework

sudo systemctl restart jenkins
```

Run and Debug the Pipeline

```
docker images     # Check if the image exists

docker ps -a      # Check running containers

docker logs   # View container logs
```

ⓘ Restore Session ✕   🧔 e-com pipeline #16 Conso ✕   +

← → C   🛡 🗋 localhost:8080/job/e-com pipeline/1 ▤ 70% ☆   ☑ ⤓ ≡

Dashboard   e-com pipeline   #16

▤ Status

</> Changes

▣ **Console Output**

☑ Edit Build Information

🗑 Delete build '#16'

🕐 Timings

◈ Git Build Data

ⵂ Pipeline Overview

▣ Pipeline Console

↻ Restart from Stage

↪ Replay

▤ Pipeline Steps

📁 Workspaces

← Previous Build

Console Output   ⬇ Download   ⧉ Copy   View as plain text

```
Started by user Ashwin V
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/e-com pipeline
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Checkout Code)
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential git
 > git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/e-com
pipeline/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/veluashwin/task-5.git
# timeout=10
Fetching upstream changes from https://github.com/veluashwin/task-5.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
```

localhost:8080/job/e-com pipeline/16/timings