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If outdated, install the latest version: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 In -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

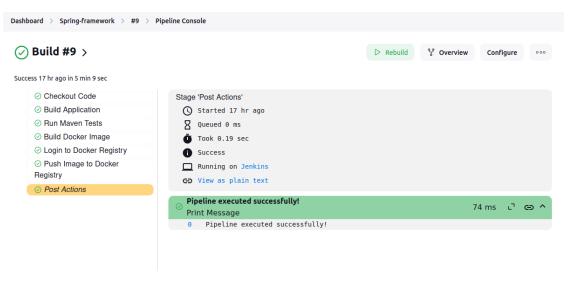
sudo chown -R jenkins:jenkins /var/lib/jenkins/workspace/Spring-framework sudo chmod -R 775 /var/lib/jenkins/workspace/Spring-framework sudo systemctl restart jenkins

Run and Debug the Pipeline

docker images # Check if the image exists

docker ps -a # Check running containers

docker logs # View container logs



Jenkins 2.492.2

Pipeline										8
	Start	Checkout Code	Build Application	Run Maven Tests	Build Docker I	Login to Docke	Push Image to	Post Actions	End	