**Task 4:**

Develop a CI/CD pipeline configuration file (e.g., using Jenkins, GitLab CI, or Travis CI) for a sample project.

The pipeline should include stages for building, testing, and deploying maven project, that’s why I used maven commands like mvn clean/mvn test

**Solution:**

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| Below is an example Jenkins pipeline configuration file (Jenkinsfile) which was written in groovy scripting  pipeline {  agent any // Executes the pipeline on any available agent  stages {  stage('Build') {  steps {  // Checkout source code from version control  git 'https://github.com/sample-project.git'    // Build the project  sh 'mvn clean  }  post {  success {  // Archive the build artifacts for later use  archiveArtifacts artifacts: 'target/\*.jar', onlyIfSuccessful: true  }  }  }    stage('Test') {  steps {  // Run tests  sh 'mvn test' // Maven  }  post {  always {  // Publish test results  junit 'target/surefire-reports/\*.xml'  }  }  }    stage('Deploy') {  environment {  // Define deployment environment variables (e.g., server IP, credentials)  SERVER\_IP = ‘server\_ip'  USERNAME = 'username'  PASSWORD = ‘password'  }  steps {  // Deploy the application  sh "scp -o StrictHostKeyChecking=no target/\*.jar $USERNAME@$SERVER\_IP:/path/to/deployment/directory"  }  }  }  } |