

Day 5

Maven project

PIPELINESCRIPT

```
pipeline {
  agent any

  environment {
    DOCKER_IMAGE = "mithras72/maven_repo"
    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 {
        git credentialsId: GITHUB_CREDENTIALS_ID, url: 'https://github.com/Mithra07-Sriram/maven_proj.git', branch: 'main'
      }
    }

    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!"
    }
}
}

```

BUILD THE PIPELINE:-

In Tools:-

Use Maven 3.9.6

and Maven Home as /opt/home

The screenshot shows the Jenkins web interface in a Google Chrome browser. The address bar indicates the URL is `localhost:8080/job/maven_java/`. The Jenkins dashboard for the `maven_java` pipeline is displayed. The pipeline status is shown as a green checkmark, indicating it is successful. The left sidebar contains navigation links for Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Stages, Rename, and Pipeline Syntax. The main content area shows the 'Stage View' for the pipeline. A table displays the stage execution times and results for two builds. Build #2 (09:04) is successful, while Build #1 (08:59) failed. The 'Permalinks' section at the bottom provides links to the last build, last stable build, last successful build, last failed build, and last unsuccessful build.

	Checkout Code	Build Application	Run Maven Tests	Build Docker Image	Push Docker Image	Declarative: Post Actions
Average stage times: (full run time: ~8min 42s)	3s	45s	18s	1min 1s	2min 14s	244ms
#2 09:04 No Changes	1s	1min 30s	36s	2min 3s	4min 28s	186ms
#1 08:59 No Changes	5s	1s	393ms	239ms	277ms	303ms

Permalinks

- Last build (#2), 8 min 49 sec ago
- Last stable build (#2), 8 min 49 sec ago
- Last successful build (#2), 8 min 49 sec ago
- Last failed build (#1), 13 min ago
- Last unsuccessful build (#1), 13 min ago

Activities

Google Chrome

Mar 22 09:22

localhost:8080/job/maven_java/2/console

Jenkins

Dashboard > maven_java > #2

Status

Changes

Console Output

Edit Build Information

Delete build '#2'

Timings

Git Build Data

Pipeline Overview

Pipeline Console

Restart from Stage

Replay

Pipeline Steps

Workspaces

Previous Build

Console Output

Download

Copy

View as plain text

Skipping 573 KB. [Full Log](#)

Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-spi/3.2.3/surefire-extensions-spi-3.2.3.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-api/3.2.3/surefire-extensions-api-3.2.3.jar> (26 kB at 112 kB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar>
Progress (4): 308 kB | 171 kB | 118 kB | 4.1/8.2 kB
Progress (4): 308 kB | 171 kB | 118 kB | 8.2 kB

Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-booter/3.2.3/surefire-booter-3.2.3.jar> (118 kB at 474 kB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-common-artifact-filters/3.1.1/maven-common-artifact-filters-3.1.1.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/maven-surefire-common/3.2.3/maven-surefire-common-3.2.3.jar> (308 kB at 1.2 MB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/commons-io/commons-io/2.15.0/commons-io-2.15.0.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-api/3.2.3/surefire-api-3.2.3.jar> (171 kB at 651 kB/s)
Downloading from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-java/1.2.0/plexus-java-1.2.0.jar>
Downloaded from central: <https://repo.maven.apache.org/maven2/org/apache/maven/surefire/surefire-extensions-spi/3.2.3/surefire-extensions-spi-3.2.3.jar> (8.2 kB at 29 kB/s)

Activities

Google Chrome

Mar 22 09:21

localhost:8080/job/maven_java/2/console

Jenkins

Dashboard > maven_java > #2

4b7c01ed0534: Waiting

5f70bf18a886: Mounted from library/tomcat

49cb1bc2daeb: Mounted from library/tomcat

6fbdf02a6a33: Mounted from library/tomcat

4e5b554b7345: Mounted from library/tomcat

f844dcf94898: Mounted from library/tomcat

39cf0ac89a5a: Mounted from library/tomcat

3359bc3d7a6a: Mounted from library/tomcat

4b7c01ed0534: Mounted from library/tomcat

ccea3912bb9: Pushed

latest: digest: sha256:cd16b526b0c205569f5884076cef536bfc21209aca45e01de20f9d710b6adb5a 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 2.502

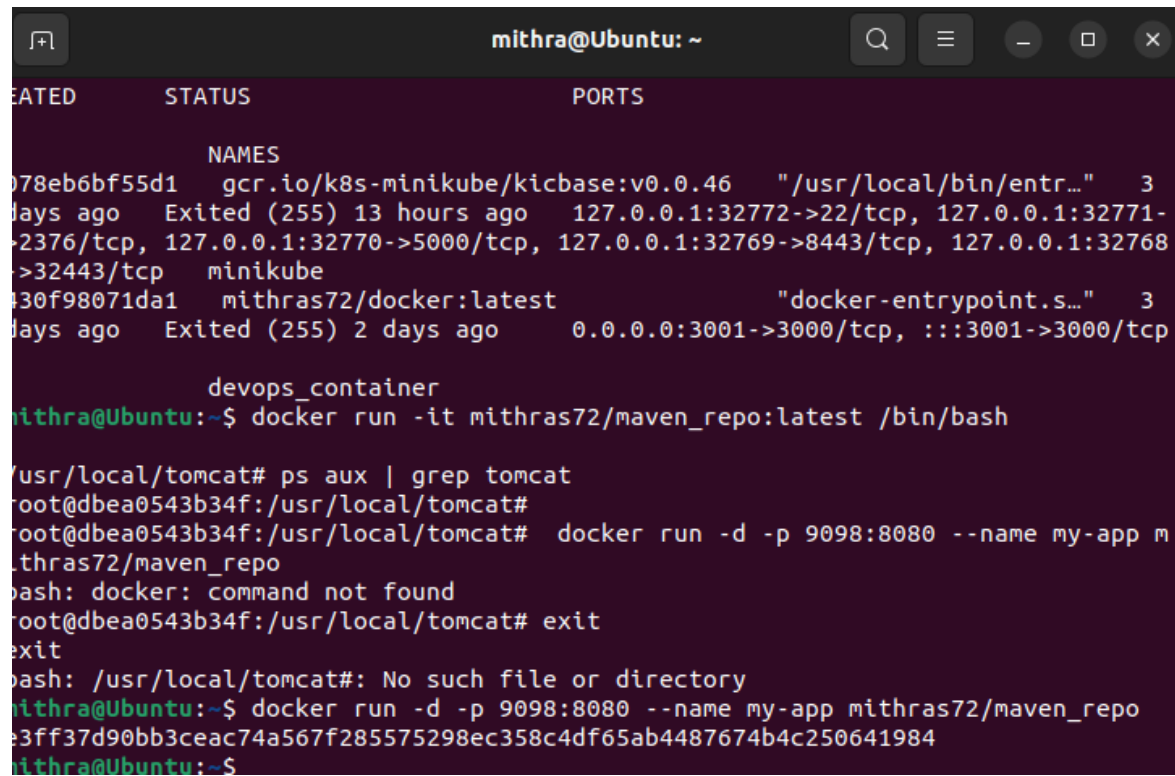
AFTER BUILD:-

`docker ps -a`

`docker run -it mithras72/maven_repo:latest /bin/bash`

`/usr/local/tomcat# ps aux | grep tomcat`

`docker run -d -p 9098:8080 --name my-app mithras72/maven_repo`



The screenshot shows a terminal window titled 'mithra@Ubuntu: ~'. It displays the output of 'docker ps -a', which lists several containers including 'gcr.io/k8s-minikube/kicbase:v0.0.46' and 'mithras72/docker:latest'. The user then runs 'docker run -it mithras72/maven_repo:latest /bin/bash', which opens a shell inside the container. Inside the container, the user runs 'ps aux | grep tomcat', showing the 'root@dbea0543b34f:/usr/local/tomcat#' prompt. The user then runs 'docker run -d -p 9098:8080 --name my-app mithras72/maven_repo', which results in an error: 'bash: docker: command not found'. The user then runs 'exit' to leave the container. Finally, the user runs 'docker run -d -p 9098:8080 --name my-app mithras72/maven_repo' again, which successfully creates the container 'my-app' with ID 'e3ff37d90bb3ceac74a567f285575298ec358c4df65ab4487674b4c250641984'.

```
mithra@Ubuntu: ~  
Created          STATUS          PORTS  
-----  
                NAMES  
078eb6bf55d1    gcr.io/k8s-minikube/kicbase:v0.0.46   "/usr/local/bin/entr..." 3  
days ago      Exited (255) 13 hours ago    127.0.0.1:32772->22/tcp, 127.0.0.1:32771-  
->2376/tcp, 127.0.0.1:32770->5000/tcp, 127.0.0.1:32769->8443/tcp, 127.0.0.1:32768  
->32443/tcp      minikube  
30f98071da1    mithras72/docker:latest                "docker-entrypoint.s..." 3  
days ago      Exited (255) 2 days ago     0.0.0.0:3001->3000/tcp, :::3001->3000/tcp  
                devops_container  
mithra@Ubuntu:~$ docker run -it mithras72/maven_repo:latest /bin/bash  
  
/usr/local/tomcat# ps aux | grep tomcat  
root@dbea0543b34f:/usr/local/tomcat#  
root@dbea0543b34f:/usr/local/tomcat# docker run -d -p 9098:8080 --name my-app m  
ithras72/maven_repo  
bash: docker: command not found  
root@dbea0543b34f:/usr/local/tomcat# exit  
exit  
bash: /usr/local/tomcat#: No such file or directory  
mithra@Ubuntu:~$ docker run -d -p 9098:8080 --name my-app mithras72/maven_repo  
e3ff37d90bb3ceac74a567f285575298ec358c4df65ab4487674b4c250641984  
mithra@Ubuntu:~$
```

FINAL OUTPUT IN localhost:9098

