Building using Maven Task5 by Subiksha P R

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Definition: Maven is like a project manager for Java applications. Just like a manager organizes tasks, resources, and deadlines, Maven organizes dependencies, builds, tests, and deployments, ensuring everything runs smoothly and efficiently.

Step 1: Install Java and Maven on Ubuntu

Step 2: Fork the eKart Repository on GitHub

Step 3: Configure Jenkins

Create a New Job in Jenkins

1. Open **Jenkins** in your browser.

2. Click on **New Item** → Select **Freestyle Project** → Name it Maven_task5 → Click **OK**.

Configure the Job

- **Set up Build Tools**: ○ Under **Global Tool Configuration**, add **Java** and **Maven** if

   not configured.

- **Set GitHub Repository**:

   ○ Go to **Source Code Management** → Select **Git**. ○ Paste

      the forked repository URL.

   ○ Set the branch to main.

- **Add Build Command**:

   ○ Go to **Build** → Add Build Step → Select **Invoke top-level Maven targets**.

   ○ Enter: clean package -DskipTests ○ Then **Build Now**. Step

      4: Navigate to Jenkins Workspace

 cd /var/lib/Jenkins

ls

cd workspace

ls

cd Maven_task5

cd target

ls

cd ..

docker build -t test -f docker/Dockerfile .
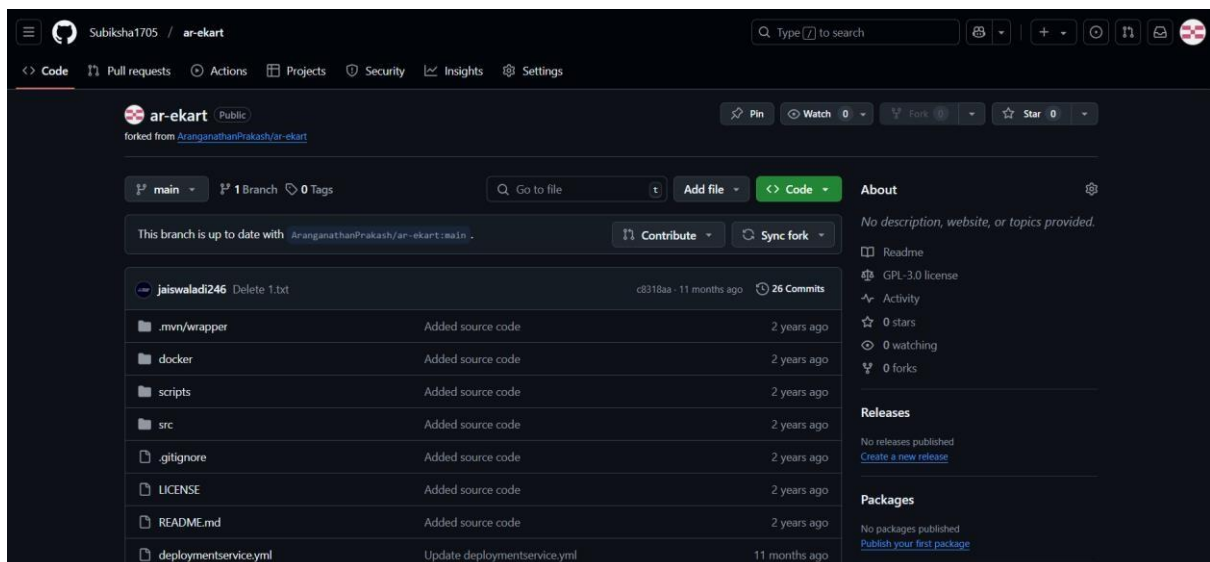
docker tag test subiksha17/mave

docker images

kubectl create deployment maven –image=subiksha17/mave –port 80

kubectl expose deployment maven –type=NodePort –port=80

minikube service maven

Output and screenshots

Configure

- ⚙ General
- ⌥ **Source Code Management**
- ⟳ Build Triggers
- 🌐 Build Environment
- ☰ Build Steps
- 🧊 Post-build Actions

Source Code Management

○ None

● Git ?

Repositories ?

Repository URL ?   ✕

https://github.com/Subiksha1705/ar-ekart.git

Credentials ?

Subiksha1705/****** (git)   ⌄

+ Add

Advanced ⌄

Add Repository

[Save]   [Apply]

Configure

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Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?   ✕

*/main

Add Branch

Repository browser ?

(Auto)   ⌄

Additional Behaviours

Add ⌄

Build Triggers

[Save]   [Apply]

Configure

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Build Triggers

☐ Build after other projects are built ?
☐ Build periodically ?
☑ GitHub hook trigger for GITScm polling ?
☐ Poll SCM ?

Build Environment

☐ Delete workspace before build starts
☐ Use secret text(s) or file(s) ?
☐ Add timestamps to the Console Output
☐ Configure Kubernetes CLI (kubectl) (deprecated, use the multi credentials one instead) ?
☐ Configure Kubernetes CLI (kubectl) with multiple credentials
☐ Inspect build log for published build scans
☐ Setup Kubernetes CLI (kubectl) ?
☐ Terminate a build if it's stuck

[Save]   [Apply]

Configure

- ⚙ General
- 🔀 Source Code Management
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- 🌐 Build Environment
- ☰ **Build Steps**
- 🎁 Post-build Actions

☑ With Ant ❓

JDK

```
java_home                                                          ⌄
```

Build Steps

```
☰   Invoke top-level Maven targets  ❓                              ✕

Maven Version

mvn                                                                ⌄

Goals

clean package -DskipTests                                          ⌄

  Advanced ⌄
```

Add build step ⌄

Save   Apply

🧰 Jenkins

Q Search (CTRL+K)   ❓   🔔➊   🛡➋

- 📄 Status
- </> Changes
- 🗂 Workspace
- ▷ Build Now
- ⚙ Configure
- 🗑 Delete Project
- 📱 GitHub Hook Log
- ✏ Rename

✅ **Maven_task5**   ✏ Add description

Permalinks

- Last build (#7), 33 min ago
- Last stable build (#7), 33 min ago
- Last successful build (#7), 33 min ago
- Last failed build (#5), 16 hr ago
- Last unsuccessful build (#5), 16 hr ago
- Last completed build (#7), 33 min ago

Builds   ••• ⤢

🔍 Filter   /

Today
✅ #7 1:54 AM   ⌄

February 7, 2025
✅ #6 10:05 AM   ⌄

```
subiksha_ubuntu@SUBIKSHA:/var/lib/jenkins/workspace/Maven_task5$ kubectl get svc
NAME          TYPE         CLUSTER-IP       EXTERNAL-IP    PORT(S)        AGE
depth         NodePort     10.108.141.157   <none>         80:30100/TCP   39h
kubernetes    ClusterIP    10.96.0.1        <none>         443/TCP        39h
maven         NodePort     10.99.186.139    <none>         80:32322/TCP   15h
subiksha_ubuntu@SUBIKSHA:/var/lib/jenkins/workspace/Maven_task5$ minikube service maven
|------------|-------|-------------|---------------------------|
| NAMESPACE  | NAME  | TARGET PORT |            URL            |
|------------|-------|-------------|---------------------------|
| default    | maven |          80 | http://192.168.49.2:32322 |
|------------|-------|-------------|---------------------------|
🏃  Starting tunnel for service maven.
|------------|-------|-------------|---------------------------|
| NAMESPACE  | NAME  | TARGET PORT |            URL            |
|------------|-------|-------------|---------------------------|
| default    | maven |             | http://127.0.0.1:32943    |
|------------|-------|-------------|---------------------------|
🎉  Opening service default/maven in default browser...
👉  http://127.0.0.1:32943
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
^C✋  Stopping tunnel for service maven.
subiksha_ubuntu@SUBIKSHA:/var/lib/jenkins/workspace/Maven_task5$
```