TASK 5 – MAVEN CREATION

Step 1: Folder Creation

Create a folder named maven and install git in that folder.

```
thrisha@LAPTOP-2IK4H22I:~$ sudo su
root@LAPTOP-2IK4H22I:/home/thrisha# mkdir maven
root@LAPTOP-2IK4H22I:/home/thrisha# cd maven
root@LAPTOP-2IK4H22I:/home/thrisha/maven# apt install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.43.0-1ubuntu7.2).
git set to manually installed.
```

Step 2: Installing Java

Clone the repository inside the folder and install java openjdk-17-jdk -y

```
root@LAPTOP-2IK4H22I:/home/thrisha/maven# ls
spring-framework-petclinic
root@LAPTOP-2IK4H22I:/home/thrisha/maven# cd spring-framework-petclinc
bash: cd: spring-framework-petclinc: No such file or directory
root@LAPTOP-2IK4H22I:/home/thrisha/maven# cd spring-framework-petclinic
root@LAPTOP-2IK4H22I:/home/thrisha/maven/spring-framework-petclinic# ls
Jenkinsfile  LICENSE.txt  dockerfile  mvnw  mvnw.cmd  pom.xml  readme.md  src
root@LAPTOP-2IK4H22I:/home/thrisha/maven/spring-framework-petclinic# apt install openjdk-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm17t64
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  alsa-topology-conf alsa-ucm-conf ca-certificates-java fonts-dejavu-extra java-common libasound2-data libasound2t64
  libatk-wrapper-java libatk-wrapper-java-jni libgif7 libice-dev libice6 libnspr4 libnss3 libpcsclite1
  libpthread-stubs0-dev libsm-dev libsm6 libx11-dev libxau-dev libxaw7 libxcb-shape0 libxcb1-dev libxdmcp-dev libxft2
  libxkbfile1 libxmu6 libxpm4 libxt-dev libxt6t64 libxv1 libxxf86dga1 openjdk-17-jdk-headless openjdk-17-jre
  openjdk-17-jre-headless x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre alsa-utils libasound2-plugins libice-doc pcscd libsm-doc libx11-doc libxcb-doc libxt-doc openjdk-17-demo
  openjdk-17-source visualvm libnss-mdns fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei
  | fonts-wqy-zenhei fonts-indic mesa-utils
Recommended packages:
  luit
The following NEW packages will be installed:
  alsa-topology-conf alsa-ucm-conf ca-certificates-java fonts-dejavu-extra java-common libasound2-data libasound2t64
  libatk-wrapper-java libatk-wrapper-java-jni libgif7 libice-dev libice6 libnspr4 libnss3 libpcsclite1
  libpthread-stubs0-dev libsm-dev libsm6 libx11-dev libxau-dev libxaw7 libxcb-shape0 libxcb1-dev libxdmcp-dev libxft2
  libxkbfile1 libxmu6 libxpm4 libxt-dev libxt6t64 libxv1 libxxf86dga1 openjdk-17-jdk openjdk-17-jdk-headless
  openjdk-17-jre openjdk-17-jre-headless x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
0 upgraded, 40 newly installed, 0 to remove and 0 not upgraded.
Need to get 123 MB/128 MB of archives.
After this operation, 298 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 libasound2-data all 1.2.11-1build2 [21.0 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 alsa-ucm-conf all 1.2.10-1ubuntu5.4 [64.8 kB]
```

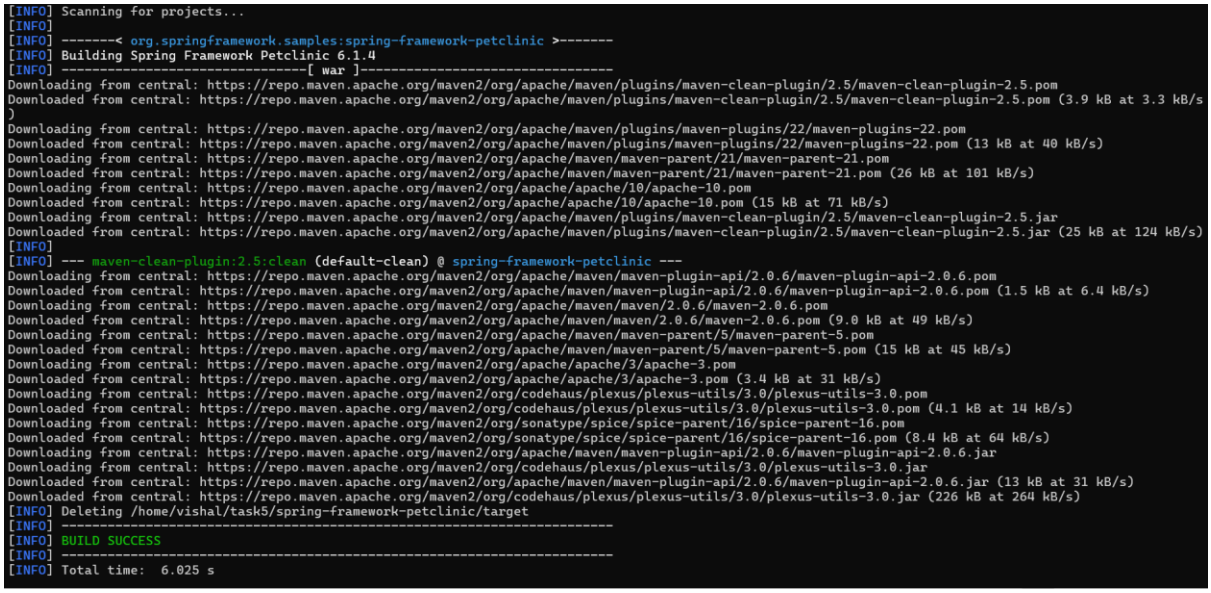
Step 3: Maven test

Test the maven and check any errors present

```
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/jackson-bom/2.16.1/jackson-bom-2.16.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/jackson-bom/2.16.1/jackson-bom-2.16.1.pom (18 kB at 24 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/jackson-parent/2.16/jackson-parent-2.16.pom
Downloaded from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/jackson-parent/2.16/jackson-parent-2.16.pom (6.5 kB at 31 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/com/fasterxml/oss-parent/56/oss-parent-56.pom
Downloaded from central: https://repo.maven.apache.org/maven2/com/fasterxml/oss-parent/56/oss-parent-56.pom (24 kB at 178 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/data/spring-data-bom/2023.1.1/spring-data-bom-2023.1.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/data/spring-data-bom/2023.1.1/spring-data-bom-2023.1.1.pom (5.5 kB at 47 k
B/s)
[INFO]
[INFO] -------< org.springframework.samples:spring-framework-petclinic >-------
[INFO] Building Spring Framework Petclinic 6.1.4
[INFO] --------------------------------[ war ]---------------------------------
Downloading from central: https://repo.maven.apache.org/maven2/org/jacoco/jacoco-maven-plugin/0.8.11/jacoco-maven-plugin-0.8.11.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/jacoco/jacoco-maven-plugin/0.8.11/jacoco-maven-plugin-0.8.11.pom (4.2 kB at 22 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/jacoco/org.jacoco.build/0.8.11/org.jacoco.build-0.8.11.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/jacoco/org.jacoco.build/0.8.11/org.jacoco.build-0.8.11.pom (44 kB at 237 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-bom/9.6/asm-bom-9.6.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-bom/9.6/asm-bom-9.6.pom (3.2 kB at 18 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/ow2/1.5.1/ow2-1.5.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/ow2/1.5.1/ow2-1.5.1.pom (11 kB at 86 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/jacoco/jacoco-maven-plugin/0.8.11/jacoco-maven-plugin-0.8.11.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/jacoco/jacoco-maven-plugin/0.8.11/jacoco-maven-plugin-0.8.11.jar (57 kB at 321 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.4.1/maven-enforcer-plugin-3.4.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-enforcer-plugin/3.4.1/maven-enforcer-plugin-3.4.1.pom (7.7 kB a
t 43 kB/s)
```

Step 4:Maven Clean

Clean the maven and remove the unwanted items

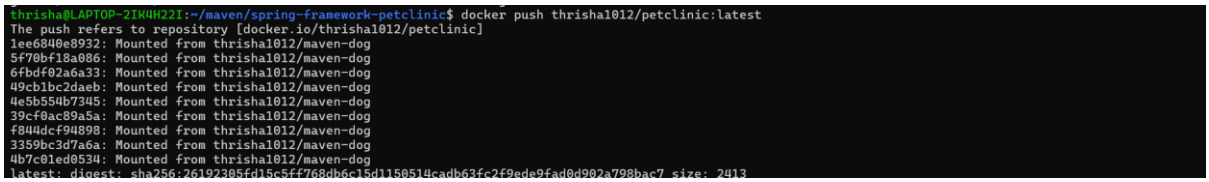


Step 5:Login in Docker

Login into docker using the username and password of the docker hub.

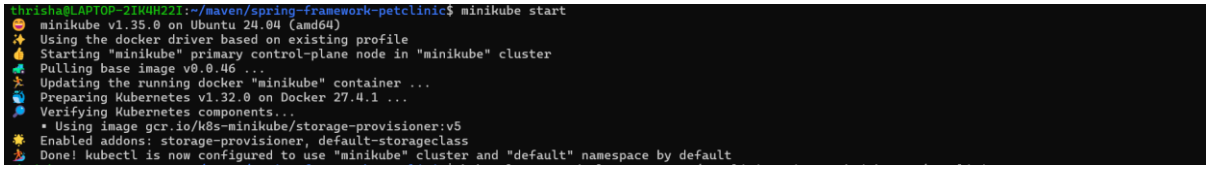
Step 6: Push in Docker

Push the image inside the docker hub



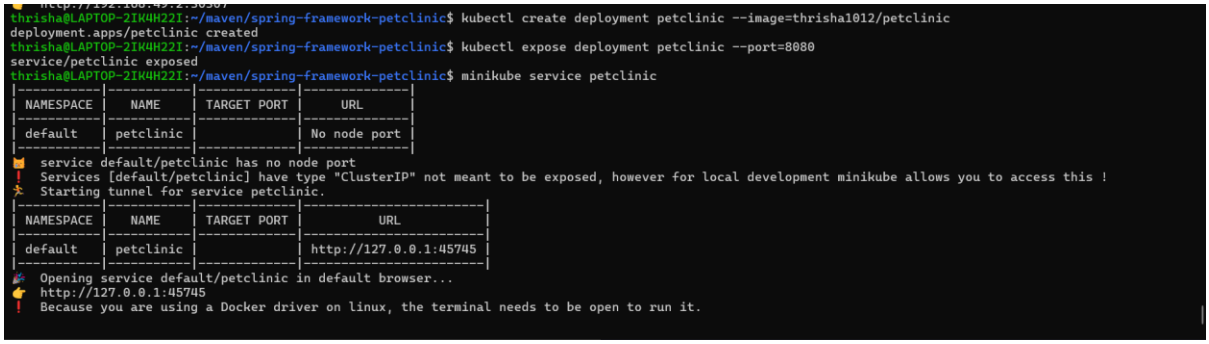
Step 7: Minikube

Start the minikube using minikube start



Step 8: Deployment

Create the deployment and expose it .Once it is exposed use minikube service to find the url of the webpage. Copy the url.



Step 9: Output

Paste the url link in the browser and the output will be displayed.