

TASK 5

STEP 1: Create a folder and move to the folder

```
dhamayandhi@LAPTOP-MR2CDKC6:~$ cd maven
dhamayandhi@LAPTOP-MR2CDKC6:~/maven$ git clone https://github.com/Dhamayandhi2004/spring-framework-petclinic.git
```

STEP 2: Move to the cloning repository

```
ERROR: Failed to solve: Failed to read dockerfile: open dockerfile: no such file or directory
dhamayandhi@LAPTOP-MR2CDKC6:~/maven$ ls
spring-framework-petclinic
dhamayandhi@LAPTOP-MR2CDKC6:~/maven$ cd spring-framework-petclinic
```

STEP 3: Execute the maven commands

- mvn test ->Runs the unit tests
- mvn clean->Clean the previous builds
- mvn install->Install require package and plugins
- mvn package->Provides jar or war file for entire application

```
[INFO] -----
[INFO] Running org.springframework.samples.petclinic.model.ValidatorTests
INFO Version - HV000001: Hibernate Validator 8.0.1.Final
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 1.630 s -- in org.springframework.samples.petclinic.m
odel.ValidatorTests
[INFO] Running org.springframework.samples.petclinic.web.VisitControllerTests
WARNING: A Java agent has been loaded dynamically (/home/dhamayandhi/.m2/repository/net/bytebuddy/byte-buddy-agent/1.14.11/b
yte-buddy-agent-1.14.11.jar)
WARNING: If a serviceability tool is in use, please run with -XX:+EnableDynamicAgentLoading to hide this warning
WARNING: If a serviceability tool is not in use, please run with -Djdk.instrument.traceUsage for more information
WARNING: Dynamic loading of agents will be disallowed by default in a future release
OpenJDK 64-Bit Server VM warning: Sharing is only supported for boot loader classes because bootstrap classpath has been app
ended
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
INFO TestDispatcherServlet - Initializing Servlet ''
INFO TestDispatcherServlet - Completed initialization in 1 ms
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
INFO TestDispatcherServlet - Initializing Servlet ''
INFO TestDispatcherServlet - Completed initialization in 1 ms
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
INFO TestDispatcherServlet - Initializing Servlet ''
INFO TestDispatcherServlet - Completed initialization in 1 ms
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
INFO TestDispatcherServlet - Initializing Servlet ''
INFO TestDispatcherServlet - Completed initialization in 0 ms
[INFO] Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 4.806 s -- in org.springframework.samples.petclinic.w
eb.VisitControllerTests
[INFO] Running org.springframework.samples.petclinic.web.PetTypeFormatterTests
[INFO] Tests run: 3, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.089 s -- in org.springframework.samples.petclinic.w
eb.PetTypeFormatterTests
[INFO] Running org.springframework.samples.petclinic.web.OwnerControllerTests
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
INFO TestDispatcherServlet - Initializing Servlet ''
INFO TestDispatcherServlet - Completed initialization in 0 ms
INFO MockServletContext - Initializing Spring TestDispatcherServlet ''
```

```

[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MissingProjectException
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic/target$ cd ..
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ mvn test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< org.springframework.samples:spring-framework-petclinic >-----
[INFO] Building Spring Framework Petclinic 6.1.4
[INFO] -----[ war ]-----
[INFO]
[INFO] --- maven-enforcer-plugin:3.4.1:enforce (enforce-maven) @ spring-framework-petclinic ---
[INFO] Rule 0: org.apache.maven.enforcer.rules.version.RequireMavenVersion passed
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.11:prepare-agent (prepare-agent) @ spring-framework-petclinic ---
[INFO] argLine set to -javaagent:/home/dhamayandhi/.m2/repository/org/jacoco/org.jacoco.agent/0.8.11/org.jacoco.agent-0.8.11
-runtime.jar=destfile=/home/dhamayandhi/maven/spring-framework-petclinic/target/jacoco.exec
[INFO]
[INFO] --- maven-resources-plugin:3.3.1:resources (default-resources) @ spring-framework-petclinic ---
[INFO] Copying 21 resources from src/main/resources to target/classes
[INFO]
[INFO] --- maven-compiler-plugin:3.11.0:compile (default-compile) @ spring-framework-petclinic ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.3.1:testResources (default-testResources) @ spring-framework-petclinic ---
[INFO] Copying 11 resources from src/test/java to target/test-classes
[INFO] Copying 1 resource from src/test/resources to target/test-classes
[INFO]
[INFO] --- maven-compiler-plugin:3.11.0:testCompile (default-testCompile) @ spring-framework-petclinic ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:3.2.3:test (default-test) @ spring-framework-petclinic ---
[INFO] Using auto detected provider org.apache.maven.surefire.junitplatform.JUnit4PlatformProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----

```

```

[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 18.489 s
[INFO] Finished at: 2025-03-21T10:10:25Z
[INFO] -----
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ ls
Jenkinsfile LICENSE.txt dockerfile mvnw mvnw.cmd pom.xml readme.md src target
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ cd target
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic/target$ cd ..
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ cd target
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic/target$ ls
classes generated-test-sources maven-archiver petclinic site test-classes
generated-sources jacoco.exec maven-status petclinic.war surefire-reports
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic/target$ cd ..
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ cat dockerfile
FROM tomcat:latest
COPY target/*.war /usr/local/tomcat/webapps/ROOT.war
EXPOSE 8080
CMD ["catalina.sh", "run"]
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ docker build -t example .
[+] Building 7.8s (8/8) FINISHED
default
=> [internal] load build definition from dockerfile
0.0s
=> => transferring dockerfile: 148B
0.0s
=> [internal] load metadata for docker.io/library/tomcat:latest
1.9s
=> [auth] library/tomcat:pull token for registry-1.docker.io
0.0s
=> [internal] load .dockerignore
0.0s
=> => transferring context: 2B

```

Step 4 Initialize the minikube

```
latest: digest: sha256:569d0eaa569c8189028f1e3130847f8e4592e091c8d29768b5b973c53436f13a size: 2413
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ minikube start
🐹 minikube v1.35.0 on Ubuntu 24.04 (amd64)
🔧 Using the docker driver based on existing profile
👉 Starting "minikube" primary control-plane node in "minikube" cluster
📡 Pulling base image v0.0.46 ...
🔄 Restarting existing docker container for "minikube" ...
🔧 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔍 Verifying Kubernetes components...
   ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌟 Enabled addons: storage-provisioner, default-storageclass
🏁 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

Step 5: Create the deployment

```
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ kubectl create deployment r5 --image=dhamaya2004/task5 --port=8080
deployment.apps/r5 created
```

Step 6: Expose the Deployment

```
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ kubectl expose deployment.apps/r5 --port=8080 --type=NodePort
service/r5 exposed
```

Step 7: Expose the Service

```
dhamayandhi@LAPTOP-MR2CDKC6:~/maven/spring-framework-petclinic$ minikube service r5
```

NAMESPACE	NAME	TARGET PORT	URL
default	r5	8080	http://192.168.49.2:30182

```
🔧 Starting tunnel for service r5.
```

NAMESPACE	NAME	TARGET PORT	URL
default	r5		http://127.0.0.1:38393

```
🌐 Opening service default/r5 in default browser...
👉 http://127.0.0.1:38393
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.
kubectl expose deployment r2 --type=LoadBalancer --port=8080 --target-port=8080
```

Step 8: Open the URL in the web browser

