Devops Final Project (DAY-6)

JAVA APPLICATION DEPLOYMENT IN MINIKUBE

CODE:

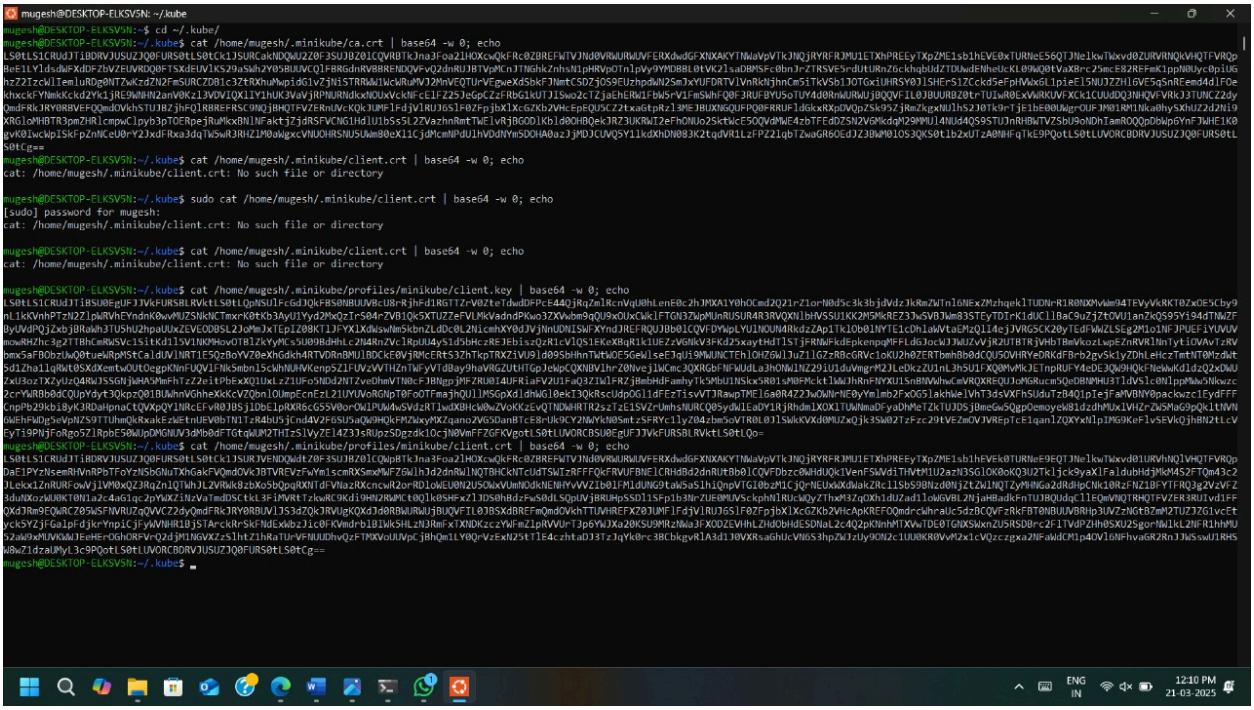
Kubectl pipeline code:

```
pipeline {
agent any
stages {
stage('SCM') {
steps {
git branch: 'main', url:
'
https://github.com/PraneshC2005/DevOps_simple-web-app.git'
}
}
stage('Build-clean') {
steps{
sh 'mvn clean'
}
}
stage('Build-validate') {
steps{
sh 'mvn validate'
}
}
stage('Build-compile') {
steps{
sh 'mvn compile'
}
}
```

```
stage('Build-test') {
steps{
sh 'mvn test'
}
}
stage('Build-package') {
steps{
sh 'mvn package'
}
}
stage('build to images') {
steps {
script{
sh "docker build -t praneshc/webapplication ."
}
}
}
stage('docker push hub') {
steps {
script{
withDockerRegistry(credentialsId: 'cred-2', url:
'
https://index.docker.io/v1/') {
sh 'docker push praneshc/webapplication'
}
}
}
}
stage('Deploy App') {
steps {
withKubeConfig(caCertificate: '', clusterName: 'minikube',
contextName: 'minikube', credentialsId: 'kube-cred', namespace: '',
restrictKubeConfigAccess: false, serverUrl:
'
https://192.168.39.226:8443') {
sh 'kubectl apply -f Deployment.yml --validate=false'
```

}
}
}
}
}

OUTPUT:


mugesh@DESKTOP-ELKSV5N: ~/.kube
mugesh@DESKTOP-ELKSV5N:~$ cd ~/.kube/
mugesh@DESKTOP-ELKSV5N:~/.kube$ cat /home/mugesh/.minikube/ca.crt | base64 -w 0; echo
mugesh@DESKTOP-ELKSV5N:~/.kube$ cat /home/mugesh/.minikube/client.crt | base64 -w 0; echo
cat: /home/mugesh/.minikube/client.crt: No such file or directory
mugesh@DESKTOP-ELKSV5N:~/.kube$ sudo cat /home/mugesh/.minikube/client.crt | base64 -w 0; echo
[sudo] password for mugesh:
cat: /home/mugesh/.minikube/client.crt: No such file or directory
mugesh@DESKTOP-ELKSV5N:~/.kube$ cat /home/mugesh/.minikube/client.crt | base64 -w 0; echo
cat: /home/mugesh/.minikube/client.crt: No such file or directory
mugesh@DESKTOP-ELKSV5N:~/.kube$ cat /home/mugesh/.minikube/profiles/minikube/client.key | base64 -w 0; echo
mugesh@DESKTOP-ELKSV5N:~/.kube$ cat /home/mugesh/.minikube/profiles/minikube/client.crt | base64 -w 0; echo
ENG
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12:10 PM
21-03-2025

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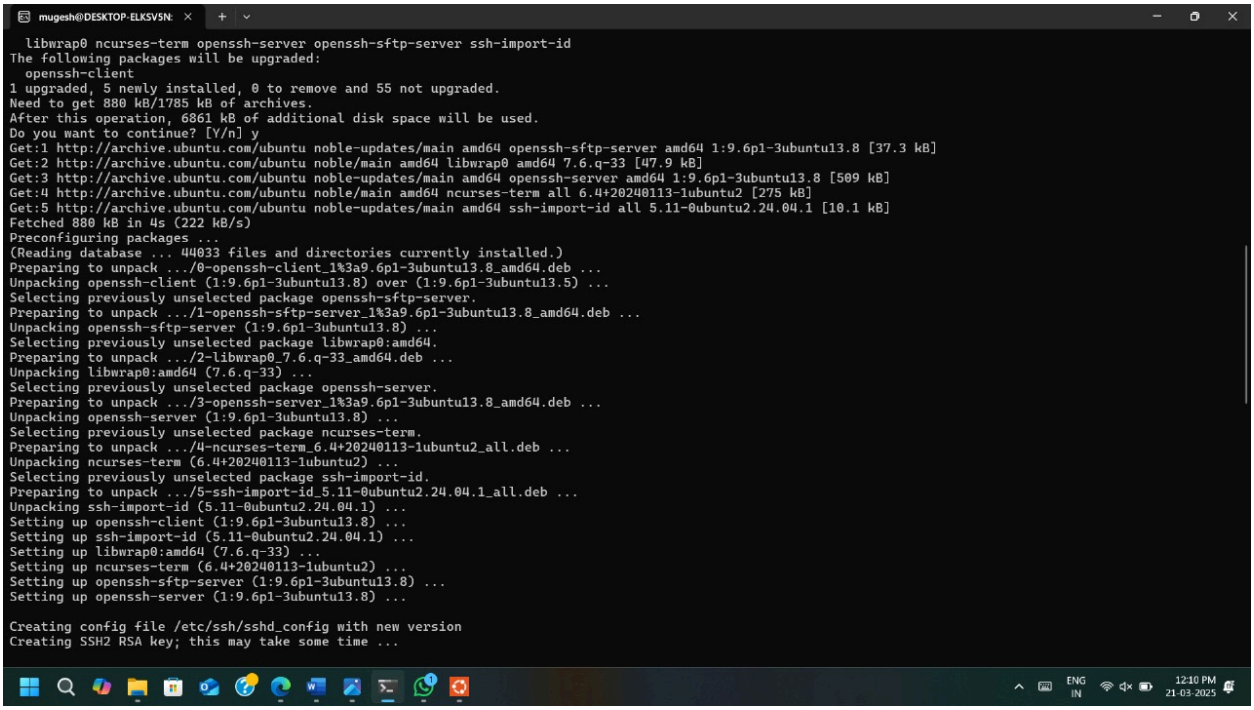
mugesh@DESKTOP-ELKSV5N:
libwrap0 ncurses-term openssh-server openssh-sftp-server ssh-import-id
The following packages will be upgraded:
openssh-client
1 upgraded, 5 newly installed, 0 to remove and 55 not upgraded.
Need to get 880 kB/1785 kB of archives.
After this operation, 6861 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-sftp-server amd64 1:9.6p1-3ubuntu13.8 [37.3 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble/main amd64 libwrap0 amd64 7.6.q-33 [47.9 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-server amd64 1:9.6p1-3ubuntu13.8 [509 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble/main amd64 ncurses-term all 6.4+20240113-1ubuntu2 [275 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 ssh-import-id all 5.11-0ubuntu2.24.04.1 [10.1 kB]
Fetched 880 kB in 4s (222 kB/s)
Preconfiguring packages ...
(Reading database ... 44033 files and directories currently installed.)
Preparing to unpack .../0-openssh-client_1%3a9.6p1-3ubuntu13.8_amd64.deb ...
Unpacking openssh-client (1:9.6p1-3ubuntu13.8) over (1:9.6p1-3ubuntu13.5) ...
Selecting previously unselected package openssh-sftp-server.
Preparing to unpack .../1-openssh-sftp-server_1%3a9.6p1-3ubuntu13.8_amd64.deb ...
Unpacking openssh-sftp-server (1:9.6p1-3ubuntu13.8) ...
Selecting previously unselected package libwrap0:amd64.
Preparing to unpack .../2-libwrap0_7.6.q-33_amd64.deb ...
Unpacking libwrap0:amd64 (7.6.q-33) ...
Selecting previously unselected package openssh-server.
Preparing to unpack .../3-openssh-server_1%3a9.6p1-3ubuntu13.8_amd64.deb ...
Unpacking openssh-server (1:9.6p1-3ubuntu13.8) ...
Selecting previously unselected package ncurses-term.
Preparing to unpack .../4-ncurses-term_6.4+20240113-1ubuntu2_all.deb ...
Unpacking ncurses-term (6.4+20240113-1ubuntu2) ...
Selecting previously unselected package ssh-import-id.
Preparing to unpack .../5-ssh-import-id_5.11-0ubuntu2.24.04.1_all.deb ...
Unpacking ssh-import-id (5.11-0ubuntu2.24.04.1) ...
Setting up openssh-client (1:9.6p1-3ubuntu13.8) ...
Setting up ssh-import-id (5.11-0ubuntu2.24.04.1) ...
Setting up libwrap0:amd64 (7.6.q-33) ...
Setting up ncurses-term (6.4+20240113-1ubuntu2) ...
Setting up openssh-sftp-server (1:9.6p1-3ubuntu13.8) ...
Setting up openssh-server (1:9.6p1-3ubuntu13.8) ...
Creating config file /etc/ssh/sshd_config with new version
Creating SSH2 RSA key; this may take some time ...
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^C✋  Stopping tunnel for service my-service.
mugesh@DESKTOP-ELKSV5N:~$ curl http://192.168.49.2:30002
<!doctype html><html lang="en"><head><title>HTTP Status 404 – Not Found</title><style type="text/css">body {font-family:
Tahoma,Arial,sans-serif;} h1, h2, h3, b {color:white;background-color:#525D76;} h1 {font-size:22px;} h2 {font-size:16px;
} h3 {font-size:14px;} p {font-size:12px;} a {color:black;} .line {height:1px;background-color:#525D76;border:none;}</st
yle></head><body><h1>HTTP Status 404 – Not Found</h1><hr class="line" /><p><b>Type</b> Status Report</p><p><b>Descriptio
n</b> The origin server did not find a current representation for the target resource or is not willing to disclose that
 one exists.</p><hr class="line" /><h3>Apache Tomcat/9.0.102</h3></body></html>mugesh@DESKTOP-ELKSV5N:~$ curl http://192
.168.49.2:30002/my-app/
<html>
<body>
<h2>Hello World!</h2>
</body>
</html>
mugesh@DESKTOP-ELKSV5N:~$ minikube service my-service
|-----------|------------|-------------|---------------------------|
| NAMESPACE |    NAME    | TARGET PORT |            URL            |
|-----------|------------|-------------|---------------------------|
| default   | my-service |        9000 | http://192.168.49.2:30002 |
|-----------|------------|-------------|---------------------------|
🏃  Starting tunnel for service my-service.
|-----------|------------|-------------|------------------------|
| NAMESPACE |    NAME    | TARGET PORT |          URL           |
|-----------|------------|-------------|------------------------|
| default   | my-service |             | http://127.0.0.1:39033 |
|-----------|------------|-------------|------------------------|
🎉  Opening service default/my-service in default browser...
👉  http://127.0.0.1:39033
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
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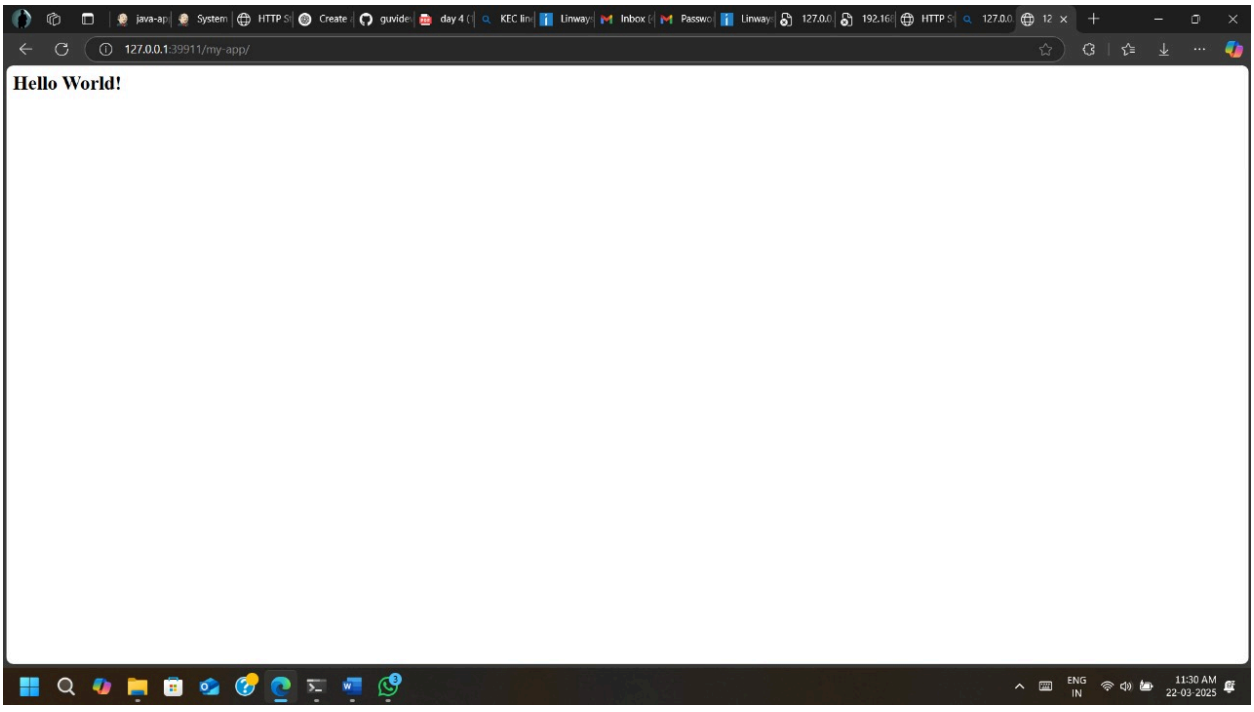

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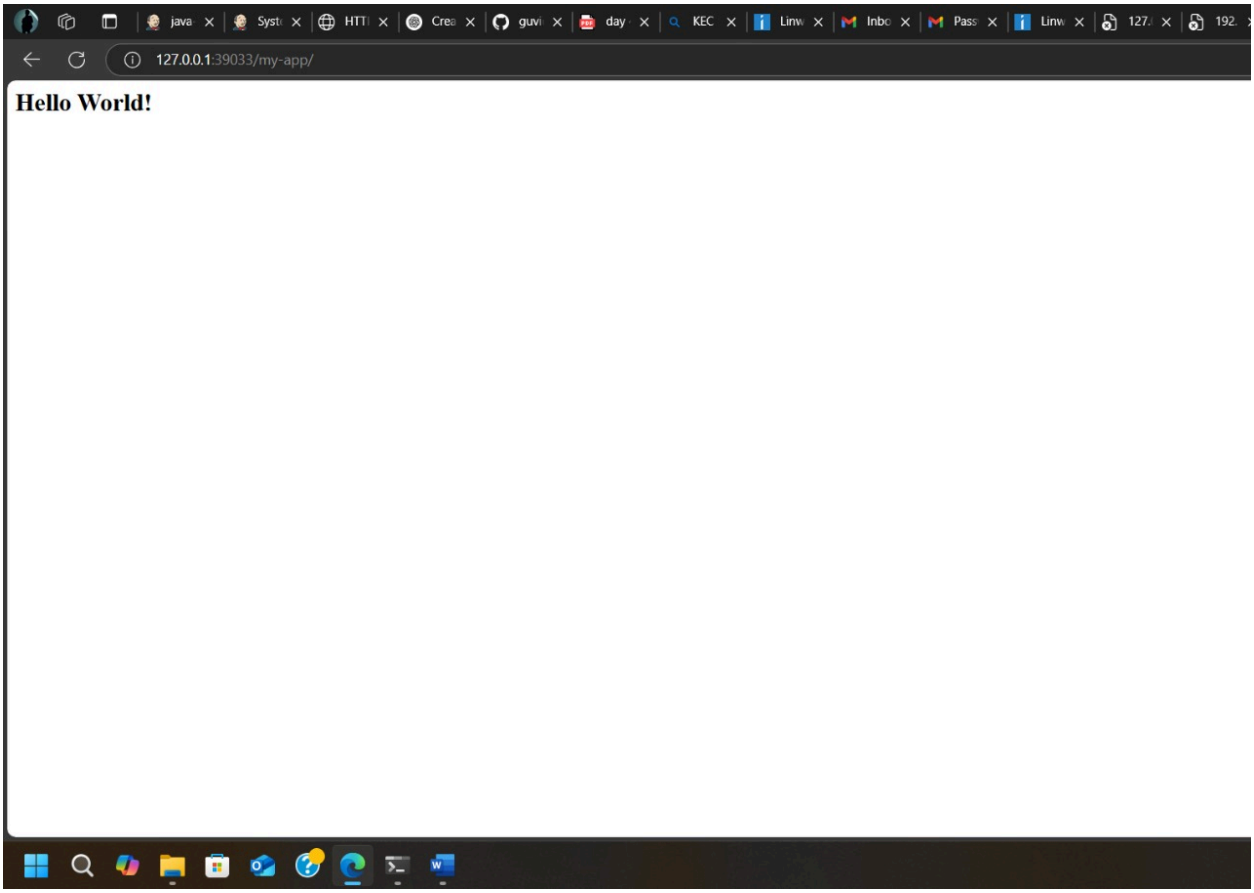
127.0.0.1:39033/my-app/
Hello World!

>

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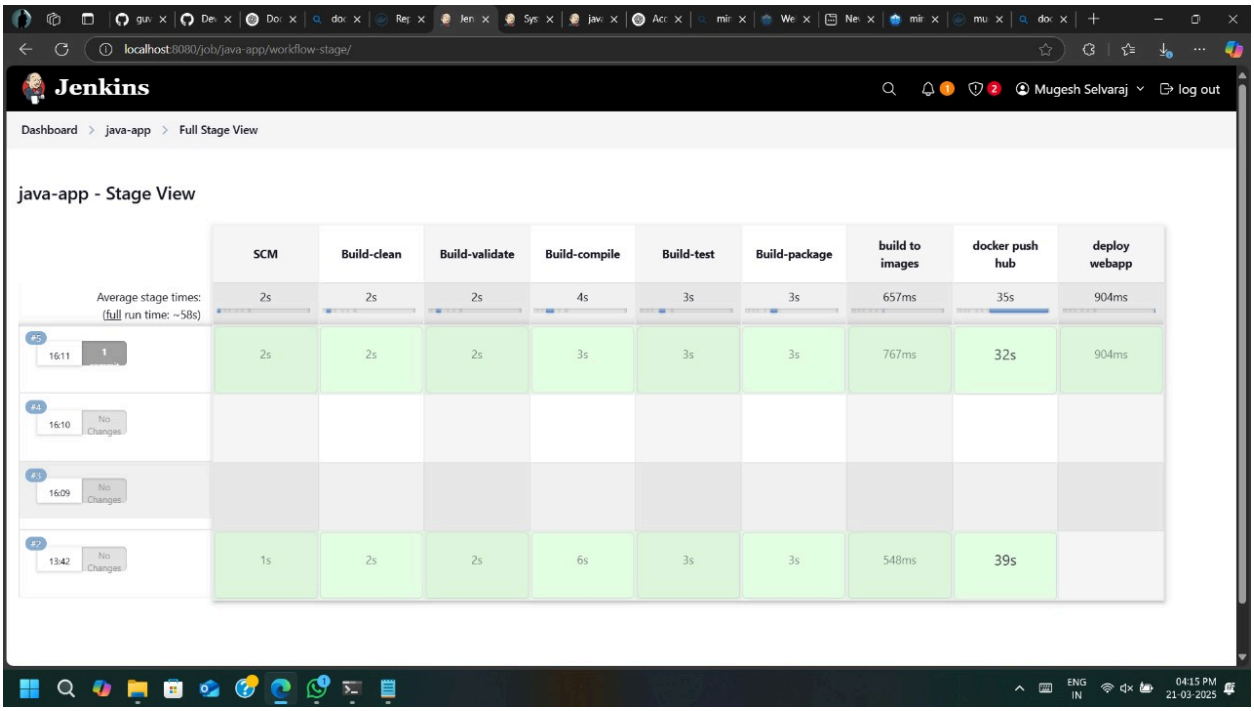
localhost:8080/job/java-app/workflow-stage/
Jenkins
Mugesh Selvaraj
log out
Dashboard
java-app
Full Stage View
java-app - Stage View
SCM
Build-clean
Build-validate
Build-compile
Build-test
Build-package
build to images
docker push hub
deploy webapp
Average stage times:
(full run time: ~58s)
2s 2s 2s 4s 3s 3s 657ms 35s 904ms
#5 16:11 1
2s 2s 2s 3s 3s 3s 767ms 32s 904ms
#4 16:10 No Changes
#3 16:09 No Changes
#2 13:42 No Changes
1s 2s 2s 6s 3s 3s 548ms 39s
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