# DEVOPS

DAY – 6

## FINAL PROJECT

**Java Application Minikube Deployment:**

**Commands:**

**a. visudo:**

1. sudo visudo
2. Add jenkins ALL=(ALL) NOPASSWD: ALL

**b. ssh installtion:**

1. sudo systemctl restart ssh.service
2. sudo systemctl restart sshd.service
3. sudo apt update
4. sudo apt install openssh-server
5. sudo systemctl restart ssh
6. sudo systemctl status ssh
7. ls /etc/systemd/system/sshd.service or ls /usr/lib/systemd/system/sshd.service
8. sudo systemctl daemon-reload
9. sudo systemctl status ssh

**c. Deployment:**

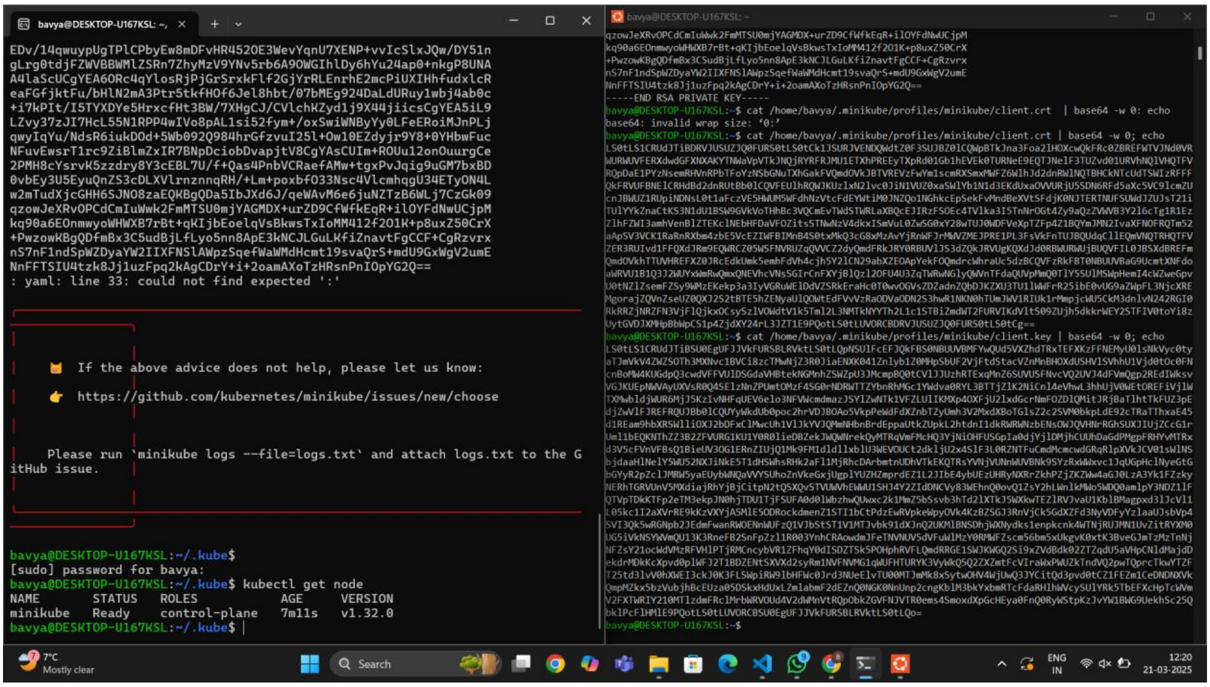
1. cd ~/.kube
2. ls
3. cat config
4. sudo vi config
5. i
6. -data
7. cat url | base64 -w 0; echo

8. minikube start

9. kubectl get node

**d. Pipeline Script:**

```
pipeline {
    agent any

    stages {
        stage('SCM Checkout') {
            steps {
                git branch: 'main', url: 'https://github.com/Bavyadharshini-Rajaganapathy/simple-web-app.git'
            }
        }

        stage('Build') {
            steps {
                sh 'mvn clean'
                sh 'mvn install'
            }
        }

        stage('Build Docker Image') {
            steps {
                script {
                    sh 'docker build -t bavyadharshini/simplewebapp .'
                }
            }
        }

        stage('Push to Docker Hub') {
            steps {
                script {
                    withDockerRegistry(credentialsId: 'Docker_cred', url:
'https://index.docker.io/v1/') {
                        sh 'docker push bavyadharshini/simplewebapp'
                    }
                }
            }

        }
        stage('test') {
            steps {
                withKubeConfig(caCertificate: '', clusterName: 'minikube', contextName:
'minikube', credentialsId: 'minikube_cred', namespace: '', restrictKubeConfigAccess:
false, serverUrl: 'https://192.168.39.226:8443')
                sh 'kubectl apply -f deployment.yml --validate=false'
            }
            }
    }
}
```



```
EDv/14qwuypUgTPlCPbyEw8mDFvHR452OE3WevYqnU7XENP+vvIcSlxJQw/DY51n
gLrg0tdjFZWVBBWMlZSRn7ZhyMzV9YNv5rb6A9OWGIhlDy6hYu24ap0+nkgP8UNA
A4laScUCgYEA6ORc4qYlosRjPjGrSrxkFlf2GjYrRLEnrhE2mcPiUXIHhfudxlcR
eaFGfjktFu/bHlN2mA3Ptr5tkfHOf6Jel8hbt/07bMEg924DaLdURuy1wbj4ab0c
+i7kPIt/I5TYXDYe5HrxcfHt3BW/7XHgCJ/CVlchKZyd1j9X44jiicsCgYEA5iL9
LZvy37zJI7HcL55N1RPP4wIVo8pAL1si52fym+/oxSwiWNByYy0LFeERoiMJnPLj
qwyIqYu/NdsR6iukDOd+5Wb092Q984hrGfzvuI25l+Ow10EZdyjr9Y8+0YHbwFuc
NFuvEwsrT1rc9ZiBlmZxIR7BNpDciobDvapjtV8CgYAsCUIm+ROUu12onOuurgCe
2PMH8cYsrvK5zzdry8Y3cEBL7U/f+Qas4PnbVCRaefAMw+tgxPvJqig9uGM7bxBD
0vbEy3U5EyuQnZS3cDLXVlrnznnqRH/+Lm+poxbfO33Nsc4VlcmhqgU34ETyON4L
w2mTudXjcGHH6SJNO8zaEQKBgQDa5IbJXd6J/qeWAvM6e6juNZTzB6WLj7CzGk09
qzowJeXRvOPCdCmIuWwk2FmMTSU0mjYAGMDX+urZD9CfWfkEqR+ilOYFdNwUCjpM
kq90a6EOnmwyoWHWXB7rBt+qKIjbEoelqVsBkwsTxIoMM412f201K+p8uxZ50CrX
+PwzowKBgQDfmBx3C5udBjLfLyo5nn8ApE3kNCJLGuLKfiZnavtFgCCF+CgRzvrx
nS7nF1ndSpWZDyaYW2IIXFNSlAWpzSqefWaWMdHcmt19svaQrS+mdU9GxWgV2umE
NnFFTSIU4tzk8Jj1uzFpq2kAgCDrY+i+2oamAXoTzHRsnPnIOpYG2Q==
```

```
: yaml: line 33: could not find expected ':'


    😿  If the above advice does not help, please let us know:

    👉  https://github.com/kubernetes/minikube/issues/new/choose


    Please run `minikube logs --file=logs.txt` and attach logs.txt to the G
itHub issue.


bavya@DESKTOP-U167KSL:~/.kube$
[sudo] password for bavya:
bavya@DESKTOP-U167KSL:~/.kube$ kubectl get node
NAME       STATUS   ROLES           AGE    VERSION
minikube   Ready    control-plane   7m11s  v1.32.0
bavya@DESKTOP-U167KSL:~/.kube$ |
```

```
qzowJeXRvOPCdCmIuWwk2FmMTSU0mjYAGMDX+urZD9CfWfkEqR+ilOYFdNwUCjpM
kq90a6EOnmwyoWHWXB7rBt+qKIjbEoelqVsBkwsTxIoMM412f201K+p8uxZ50CrX
+PwzowKBgQDfmBx3C5udBjLfLyo5nn8ApE3kNCJLGuLKfiZnavtFgCCF+CgRzvrx
nS7nF1ndSpWZDyaYW2IIXFNSlAWpzSqefWaWMdHcmt19svaQrS+mdU9GxWgV2umE
NnFFTSIU4tzk8Jj1uzFpq2kAgCDrY+i+2oamAXoTzHRsnPnIOpYG2Q==
-----END RSA PRIVATE KEY-----
```

```
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.crt  | base64 -w 0: echo
base64: invalid wrap size: ‘0:’
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.crt | base64 -w 0; echo
```

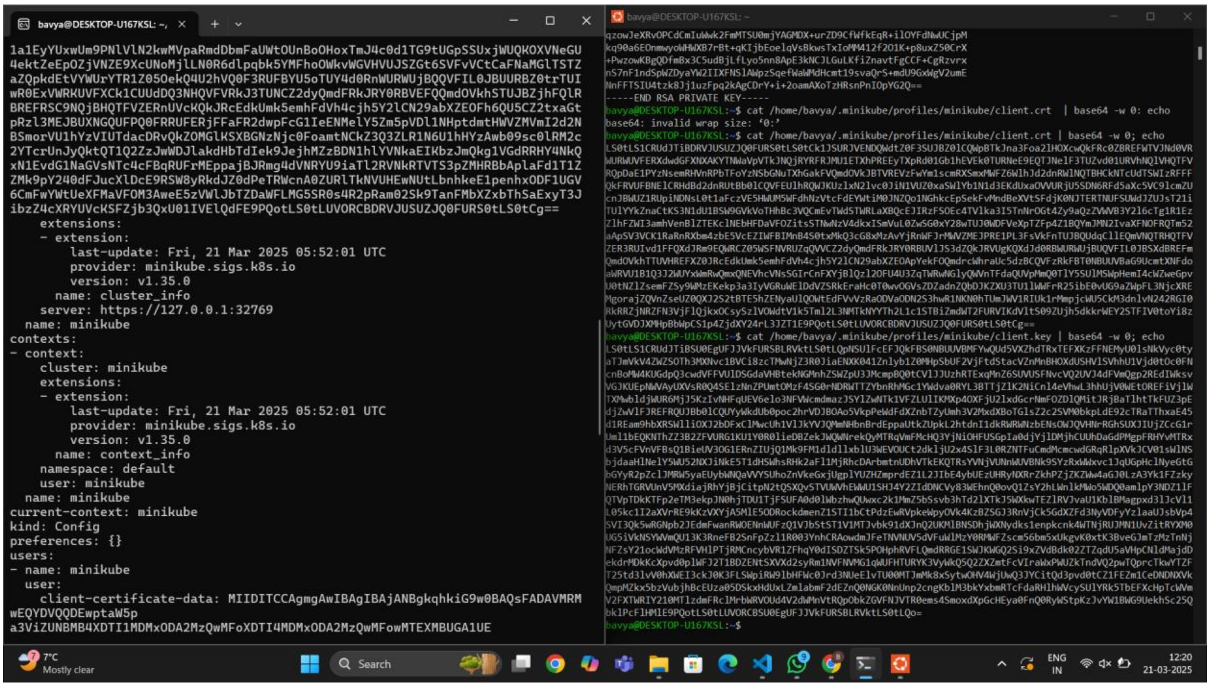
```
LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSURJVENDQWdtZ0F3SUJBZ0lCQWpBTkJna3Foa2lHOXcwQkFRc0ZBREFWTVJNd0VR
WURWUVFERXdwdGFXNXAKYTNWaVpVTkJNQjRYRFRJMU1ETXhPREEyTXpRd01Gb1hEVEk0TURNeE9EQTJNelF3TUZvd01URVhNQlVHQTFV
RQpDaE1PYzNsemRHVnRPbTFoYzNSbGNuTXhGakFVQmdOVkJBTVREVzFwYm1scmRXSmxMWFZ6WlhJd2dnRWlNQTBHCkNTcUdTSWIzRFFF
QkFRVUFBNElCRHdBd2dnRUtBb0lCQVFEUlhRQWJKUzlxN2lvc0JiN1VUZ0xaSWlYb1N1d3EKdUxaOVVURjU5SDN6RFd5aXc5VC9lcmZU
cnJBWUZ1RUpiNDNsL0t1aFczVE5HWUM5WFdhNzVtcFdEYWtiM0JNZQo1NGhkcEpSekFvMndBeXVtSFdjK0NJTERTNUFSUWdJZUJsT21i
TUlYYkZnaCtKS3N1dU1BSW9GVkVoTHhBc3VQCmEvTWdSTWRLaXBQcEJIRzFSOEc4TVlka3I5TnNrOGt4Zy9aQzZVWVB3Y2l6cTg1R1Ez
ZlhFZWI3amhVenBlZTEKclNEbHFDaVFOZitsSTNwNzV4dkxISmVuL0ZwSG0xY28wTUJ0WDFVeXpTZFp4Z1BQYmJMN2IvaXFNOFRQTm52
aApSV3VCK1RaRnRXbm4zbE5VcEZIWFBIMnB4S0txMkQ3cG8xMzAvYjRnWFJrMWVZMEJPRE1PL3FsVkFnTUJBQUdqClllQmVNQTRHQTFV
ZER3RUIvd1FFQXdJRm9EQWRCZ05WSFNVRUZqQVVCZ2dyQmdFRkJRY0RBUVlJS3dZQkJRVUgKQXdJd0RBWURWUjBUQVFIL0JBSXdBREFm
QmdOVkhTTUVHREFXZ0JRcEdkUmk5emhFdVh4cjh5Y2lCN29abXZEOApYekFOQmdrcWhraUc5dzBCQVFzRkFBT0NBUUVBaG9UcmtXNFdo
aWRVU1B1Q3J2WUYxWmRwQmxQNEVhcVNsSGIrCnFXYjBlQzl2OFU4U3ZqTWRwNGlyQWVnTFdaQUVpMmQ0TlY5SUlMSWpHemI4cWZweGpv
U0tNZlZsemFZSy9WMzEKekp3a3IyVGRuWElDdVZSRkEraHc0T0wvOGVsZDZadnZQbDJKZXU3TU1lWWFrR25ibE0vUG9aZWpFL3NjcXRE
MgorajZQVnZseUZ0QXJ2S2tBTE5hZENyaUlQOWtEdFVvVzRaODVaODN2S3hwR1NKN0hTUmJWV1RIUk1rMmpjcWU5CkM3dnlvN242RGI0
RkRRZjNRZFN3VjFlQjkxOCsySzlVOWdtV1k5Tml2L3NMTkNYYTh2L1c1STBiZmdWT2FURVIKdVltS09ZUjh5dkkrWEY2STFIV0toYi8z
UytGVDJXMHpBbWpCS1p4ZjdXY24rL3JZT1E9PQotLS0tLUVORCBDRVJUSUZJQ0FURS0tLS0tCg==
```

```
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.key | base64 -w 0; echo
```

```
LS0tLS1CRUdJTiBSU0EgUFJJVkFURSBLRVktLS0tLQpNSUlFcEFJQkFBS0NBUUVBMFYwQUd5VXZhdTRxTEFXKzFFNEMyU0lsNkVyc0ty
aTJmVkV4ZWZSOTh3MXNvc1BVCi8zcTMwNjZ3R0JiaENXK041Znlyb1Z0MHpSbUF2VjFtdStacVZnMnBHOXdUSHVlSVhhU1Vjd0tOc0FN
cnBoMW4KUGdpQ3cwdVFFVUlDSGdaVHBtekNGMnhZSWZpU3JMcmpBQ0tCVlJJUzhRTExqMnZ6SUVUSFNvcVQ2UVJ4dFVmQgp2REdIWksv
VGJKUEpNWVAyUXVsR0Q4SElzNnZPUmtOMzF4SG0rNDRWTTZYbnRhMGc1YWdva0RYL3BTTjZlK2NiCnl4eVhwL3hhUjV0WEtOREFiVjlW
TXMwbldjWUR6MjJ5KzIvNHFqUEV6elo3NFVWcmdmazJSYlZwNTk1VFZLUlIKMXp4OXFjU2lxdGcrNmFOZDlQMitJRjBaTlhtTkFUZ3pE
djZwVlFJREFRQUJBb0lCQUYyWkdUb0poc2hrVDJBOAo5VkpPeWdFdXZnbTZyUmh3V2MxdXBoTGlsZ2c2SVM0bkpLdE92cTRaTThxaE45
d1REam9hbXRSWlliOXJ2bDFxClMwcUh1VlJkYVJQMmNHbnBrdEppaUtkZUpkL2htdnI1dkRWRWNzbENsOWJQVHNrRGhSUXJIUjZCcG1r
Uml1bEQKNThZZ3B2ZFVURG1KU1Y0R0lieDBZekJWQWNrekQyMTRqVmFMcHQ3YjNiOHFUSGpIa0djYjlDMjhCUUhDaGdPMgpFRHYvMTRx
d3V5cFVnVFBsQ1BieUV3OG1ERnZIUjQ1Mk9FM1dldllxblU3WEVOUCt2dkljU2x4S1F3L0RZNTFuCmdMcmcwdGRqRlpXVkJCV01sWlNS
bjdaaHlNelY5WU52NXJiNkE5T1dHSWhsRHk2aFl1MjRhcDArbmtnUDhVTkEKQTRsYVNjVUNnWUVBNk9SYzRxWWxvc1JqUGpHclNyeGtG
bGYyR2pZclJMRW5yaEUybWNQaVVYSUhoZnVkeGxjUgplYUZHZmprdEZ1L2JIbE4ybUEzUHRyNXRrZkhPZjZKZWw4aGJ0LzA3Yk1Fzzky
NERhTGRVUnV5MXdiajRhYjBjCitpN2tQSXQvSTVUWVhEWWU1SHJ4Y2ZIdDNCVy83WEhnQ0ovQ1ZsY2hLWnlkMWo5WDQ0amlpY3NDZ1lF
QTVpTDkKTFp2eTM3ekpJN0hjTDU1TjFSUFA0d0lWbzhwQUwxc2k1MmZ5bSsvb3hTd2lXTkJ5WXkwTEZlRVJvaU1KblBMagpxd3lJcVl1
L05kc1I2aXVrRE9kKzVXYjA5MlE5ODRockdmenZ1STI1bCtPdzEwRVpkeWpyOVk4KzBZSGJ3RnVjCk5GdXZFd3NyVDFyYzlaaUJsbVp4
SVI3Qk5wRGNpb2JEdmFwanRWOENnWUFzQ1VJbStST1V1MTJvbk91dXJnQ2UKMlBNSDhjWXNydks1enpkcnk4WTNjRUJMN1UvZitRYXM0
UG5iVkNSYWVmQU13K3RneFB2SnFpZzl1R003YnhCRAowdmJFeTNVNUV5dVFuWlMzY0RMWFZscm56bm5xUkgvK0xtK3BveGJmTzMzTnNj
NFZsY21ocWdVMzRFVHlPTjRMCncybVR1ZFhqY0dISDZTSk5POHphRVFLQmdRRGE1SWJKWGQ2Si9xZVdBdk02ZTZqdU5aVHpCNldMajdD
ekdrMDkKcXpvd0plWFJ2T1BDZENtSXVXd2syRm1NVFNVMG1qWUFHTURYK3VyWkQ5Q2ZXZmtFcVIraWxPWUZkTndVQ2pwTQprcTkwYTZF
T25td3lvV0hXWEI3ckJ0K3FLSWpiRW9lbHFWc0Jrd3NUeElvTU00MTJmMk8xSytwOHV4WjUwQ3JYCitQd3pvd0tCZ1FEZm1CeDNDNXVk
QmpMZkx5bzVubjhBcEUza05DSkxHdUxLZmlabmF2dEZnQ0NGK0NnUnp2cngKblM3bkYxbmRTcFdaRHlhWVcySUlYRk5TbEFXcHpTcWVm
V2FXTWRIY210MTlzdmFRclMrbWRVOUd4V2dWMnVtRQpObkZGVFNJVTR0ems4SmoxdXpGcGcHEya0FnQ0RyWStpKzJvYW1BWG9UekhSc25Q
bklPcFlHMlE9PQotLS0tLUVORCBSU0EgUFJJVkFURSBLRVktLS0tLQo=
```

```
bavya@DESKTOP-U167KSL:~$
```

Deployment of Yml



```
1a1EyYUxwUm9PNlVlN2kwMVpaRmdDbmFaUWtOUnBoOHoxTmJ4c0d1TG9tUGpSSUxjWUQKOXVNeGU
4ektZeEpOZjVNZE9XcUNoMjlLN0R6dlpqbk5YMFhoOWkvWGVHVUJSZGt6SVFvVCtCaFNaMGlTSTZ
aZQpkdEtVYWUrYTR1Z05OekQ4U2hVQ0F3RUFBYU5oTUY4d0RnWURWUjBQQVFIL0JBUURBZ0trTUI
wR0ExVWRKUVFXCk1CUUdDQ3NHQVFVRkJ3TUNCZ2dyQmdFRkJRY0RBVEFQQmdOVkhSTUJBZjhFQlR
BREFRSC9NQjBHQTFVZERnUVcKQkJRcEdkUmk5emhFdVh4cjh5Y2lCN29abXZEOFh6QU5CZ2txaGt
pRzl3MEJBUXNGQUFPQ0FRRUFERjFFaFR2dwpFcG1IeENMelY5Zm5pVDl1NHptdmtHWVZMVmI2d2N
BSmorVU1hYzVIUTdacDRvQkZOMGlKSXBGNzNjc0FoamtNCkZ3Q3ZLR1N6U1hHYzAwb09sc0lRM2c
2YTcrUnJyQktQT1Q2ZzJwWDJlakdHbTdIek9JejhMZzBDN1hlYVNkaEIKbzJmQkg1VGdRRHY4NkQ
xN1EvdG1NaGVsNTc4cFBqRUFrMEppajBJRmg4dVNRYU9iaTl2RVNkRTVTS3pZMHRBbAplaFd1T1Z
ZMk9pY240dFJucXlDcE9RSW8yRkdJZ0dPeTRWcnA0ZURlTkNVUHEwNUtLbnhkeE1penhxODF1UGV
6CmFwYWtUeXFMaVFOM3AweE5zVWlJbTZDaWFLMG5SR0s4R2pRam02Sk9TanFMbXZxbThSaExxyT3J
ibzZ4cXRYUVcKSFZjb3QxU01IVElQdFE9PQotLS0tLUVORCBDRVJUSUZJQ0FURS0tLS0tCg==
```

```
    extensions:
    - extension:
        last-update: Fri, 21 Mar 2025 05:52:01 UTC
        provider: minikube.sigs.k8s.io
        version: v1.35.0
      name: cluster_info
    server: https://127.0.0.1:32769
  name: minikube
contexts:
- context:
    cluster: minikube
    extensions:
    - extension:
        last-update: Fri, 21 Mar 2025 05:52:01 UTC
        provider: minikube.sigs.k8s.io
        version: v1.35.0
      name: context_info
    namespace: default
    user: minikube
  name: minikube
current-context: minikube
kind: Config
preferences: {}
users:
- name: minikube
  user:
    client-certificate-data: MIIDITCCAgmgAwIBAgIBAjANBgkqhkiG9w0BAQsFADAVMRM
wEQYDVQQDEwptaW5p
a3ViZUNBMB4XDTI1MDMxODA2MzQwMFoXDTI4MDMxODA2MzQwMFowMTEXMBUGA1UE
```

```
qzowJeXRvOPCdCmIuWwk2FmMTSU0mjYAGMDX+urZD9CfWfkEqR+ilOYFdNwUCjpM
kq90a6EOnmwyoWHWXB7rBt+qKIjbEoelqVsBkwsTxIoMM412f2O1K+p8uxZ50CrX
+PwzowKBgQDfmBx3C5udBjLfLyo5nn8ApE3kNCJLGuLKfiZnavtFgCCF+CgRzvrx
nS7nF1ndSpWZDyaYW2IIXFNSlAWpzSqefWaWMdHcmt19svaQrS+mdU9GxWgV2umE
NnFFTSIU4tzk8Jj1uzFpq2kAgCDrY+i+2oamAXoTzHRsnPnIOpYG2Q==
-----END RSA PRIVATE KEY-----
```

```
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.crt  | base64 -w 0: echo
base64: invalid wrap size: ‘0:’
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.crt | base64 -w 0; echo
```

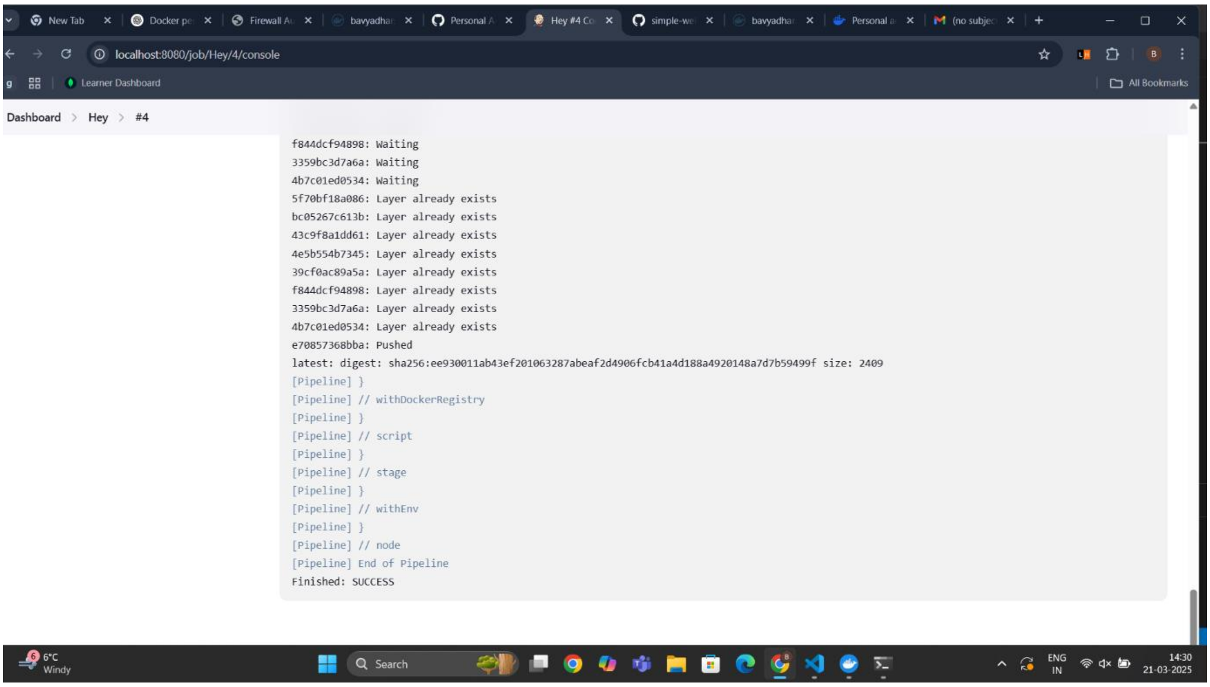
```
LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSURJVENDQWdtZ0F3SUJBZ0lCQWpBTkJna3Foa2lHOXcwQkFRc0ZBREFWTVJNd0VR
WURWUVFERXdwdGFXNXAKYTNWaVpVTkJNQjRYRFRJMU1ETXhPREEyTXpRd01Gb1hEVEk0TURNeE9EQTJNelF3TUZvd01URVhNQlVHQTFV
RQpDaE1PYzNsemRHVnRPbTFoYzNSbGNuTXhGakFVQmdOVkJBTVREVzFwYm1scmRXSmxMWFZ6WlhJd2dnRWlNQTBHCkNTcUdTSWIzRFFF
QkFRVUFBNElCRHdBd2dnRUtBb0lCQVFEUlhRQWJKUzlxN2lvc0JiN1VUZ0xaSWlYb1N1d3EKdUxaOVVURjU5SDN6RFd5aXc5VC9lcmZU
cnJBWUZ1RUpiNDNsL0t1aFczVE5HWUM5WFdhNzVtcFdEYWtiM0JNZQo1NGhkcEpSekFvMndBeXVtSFdjK0NJTERTNUFSUWdJZUJsT21i
TUlYYkZnaCtKS3N1dU1BSW9GVkVoTHhBc3VQCmEvTWdSTWRLaXBQcEJJRzFSOEc4TVlka3I5TnNrOGt4Zy9aQzZVWVB3Y2l6cTg1R1Ez
ZlhFZWI3amhVenBlZTEKclNEbHFDaVFOZitsSTNwNzV4dkxISmVuL0ZwSG0xY28wTUJ0WDFVeXpTZFp4Z1BQYmJMN2IvaXFNOFRQTm52
aApSV3VCK1RaRnRXbm4zbE5VcEZIWFBIMnB4S0txMkQ3cG8xMzAvYjRnWFJrMWVZMEJPRE1PL3FsVkFnTUJBQUdqClllQmVNQTRHQTFV
ZER3RUIvd1FFQXdJRm9EQWRCZ05WSFNVRUZqQVVCZ2dyQmdFRkJRY0RBUVlJS3dZQkJRVUgKQXdJd0RBWURWUjBUQVFIL0JBSXdBREFm
QmdOVkhTTUVHREFXZ0JRcEdkUmk5emhFdVh4cjh5Y2lCN29abXZEOApYekFOQmdrcWhraUc5dzBCQVFzRkFBT0NBUUVBaG9UcmtXNFdo
aWRVU1B1Q3J2WUYxWmRwQmxQNEVhcVNsSGIrCnFXYjBlQzl2OFU4U3ZqTWRwNGlyQWVnTFdaQUVpMmQ0TlY5SUlMSWpHemI4cWZweGpv
U0tNZlZsemFZSy9WMzEKekp3a3IyVGRuWElDdVZSRkEraHc0T0wvOGVsZDZadnZQbDJKZXU3TU1lWWFrR25ibE0vUG9aZWpFL3NjcXRE
MgorajZQVnZseUZ0QXJ2S2tBTE5hZENyaUlQOWtEdFVvVzRaODVaODN2S3hwR1NKN0hTUmJWV1RIUk1rMmpjWU5CkM3dnlvN242RGI0
RkRRZjNRZFN3VjFlQjkxOCsySzlVOWdtV1k5Tml2L3NMTkNYYTh2L1c1STBiZmdWT2FURVIKdVltS09ZUjh5dkkrWEY2STFIV0toYi8z
UytGVDJXMHpBbWpCS1p4ZjdXY24rL3JZT1E9PQotLS0tLUVORCBDRVJUSUZJQ0FURS0tLS0tCg==
```

```
bavya@DESKTOP-U167KSL:~$ cat /home/bavya/.minikube/profiles/minikube/client.key | base64 -w 0; echo
```

```
LS0tLS1CRUdJTiBSU0EgUFJJVkFURSBLRVktLS0tLQpNSUlFcEFJQkFBS0NBUUVBMFYwQUd5VXZhdTRxTEFXKzFFNEMyU0lsNkVyc0ty
aTJmVkV4ZWZSOTh3MXNvc1BVCi8zcTMwNjZ3R0JiaENXK041Znlyb1Z0MHpSbUF2VjFtdStacVZnMnBHOXdUSHVlSVhhU1Vjd0tOc0FN
cnBoMW4KUGdpQ3cwdVFFVUlDSGdaVHBtekNGMnhZSWZpU3JMcmpBQ0tCVlJJUzhRTExqMnZ6SUVUSFNvcVQ2UVJ4dFVmQgp2REdIWksv
VGJKUEpNWVAyUXVsR0Q4SElzNnZPUmtOMzF4SG0rNDRWTTZYbnRhMGc1YWdva0RYL3BTTjZlK2NiCnl4eVhwL3hhUjV0WEtOREFiVjlW
TXMwbldjWUR6MjJ5KzIvNHFqUEV6elo3NFVWcmdmazJSYlZwNTk1VFZLUlIKMXp4OXFjU2lxdGcrNmFOZDlQMitJRjBaTlhtTkFUZ3pE
djZwVlFJREFRQUJBb0lCQUYyWkdUb0poc2hrVDJBOAo5VkpPeWdFdXZnbTZyUmh3V2MxdXBoTGlsZ2c2SVM0bkpLdE92cTRaTThxaE45
d1REam9hbXRSWlliOXJ2bDFxClMwcUh1VlJkYVJQMmNHbnBrdEppaUtkZUpkL2htdnI1dkRWRWNzbENsOWJQVHNrRGhSUXJIUjZCcG1r
Uml1bEQKNThZZ3B2ZFVURG1KU1Y0R0lieDBZekJWQWNrekQyMTRqVmFMcHQ3YjNiOHFUSGpIa0djYjlDMjhCUUhDaGdPMgpFRHYvMTRx
d3V5cFVnVFBsQ1BieUV3OG1ERnZIUjQ1Mk9FM1dldllxblU3WEVOUCt2dkljU2x4SlF3L0RZNTFuCmdMcmcwdGRqRlpXVkJCV01sWlNS
bjdaaHlNelY5WU52NXJiNkE5T1dHSWhsRHk2aFl1MjRhcDArbmtnUDhVTkEKQTRsYVNjVUNnWUVBNk9SYzRxWWxvc1JqUGpHclNyeGtG
bGYyR2pZclJMRW5yaEUybWNQaVVYSUhoZnVkeGxjUgplYUZHZmprZEZ1L2JIbE4ybUEzUHRyNXRrZkhPZjZKZWw4aGJ0LzA3Yk1FZzky
NERhTGRVUnV5MXdiajRhYjBjCitpN2tQSXQvSTVUUWVhEWWU1SHJ4Y2ZIdDNCVy83WEhnQ0ovQ1ZsY2hLWnlkMWo5WDQ0amlpY3NDZ1lF
QTVpTDkKTFp2eTM3ekpJN0hjTDU1TjFSUFA0d0lWbzhwQUwxc2k1MmZ5bSsvb3hTd2lXTkJ5WXkwTEZlRVJvaU1KblBMagpxd3lJcVl1
L05kc1I2aXVrRE9kKzVXYjA5MlE5ODRockdmenZ1STI1bCtPdzEwRVpkeWpyOVk4KzBZSGJ3RnVjCk5GdXZFd3NyVDFyYzlaaUJsbVp4
SVI3Qk5wRGNpb2JEdmFwanRWOENNnWUFzQ1VJbStST1V1MTJvbk91dXJnQ2UKMlBNSDhjWXNydks1enpkcnk4WTNjRUJMN1UvZitRYXM0
UG5iVkNSYWVmQU13K3RneFB2SnFpZzl1R003YnhCRAowdmJFeTNVNUV5dVFuWlMzY0RMWFZscm56bm5xUkgvK0xtK3BveGJmTzMzTnNj
NFZsY21ocWdVMzRFVHlPTjRMCncybVR1ZFhqY0dISDZTSk5POHphRVFLQmdRRGE1SWJKWGQ2Si9xZVdBdk02ZTZqdU5aVHpCNldMajdD
ekdrMDkKcXpvd0plWFJ2T1BDZENtSXVXd2syRm1NVFNVMG1qWUFHTURYK3VyWkQ5Q2ZXZmtFcVIraWxPWUZkTndVQ2pwTQprcTkwYTZF
T25td3lvV0hXWEI3ckJ0K3FLSWpiRW9lbHFWc0Jrd3NUeElvTU00MTJmMk8xSytwOHV4WjUwQ3JYCitQd3pvd0tCZ1FEZm1CeDNDNXVk
QmpMZkx5bzVubjhBcEUza05DSkxHdUxLZmlabmF2dEZnQ0NGK0NnUnp2cngKblM3bkYxbmRTcFdaRHlhWVcySUlYRk5TbEFXcHpTcWVm
V2FXTWRIY210MTlzdmFRclMrbWRVOUd4V2dWMnVtRQpObkZGVFNJVTR0ems4SmoxdXpGcHEya0FnQ0RyWStpKzJvYW1BWG9UekhSc25Q
bklPcFlHMlE9PQotLS0tLUVORCBSU0EgUFJJVkFURSBLRVktLS0tLQo=
```

```
bavya@DESKTOP-U167KSL:~$
```

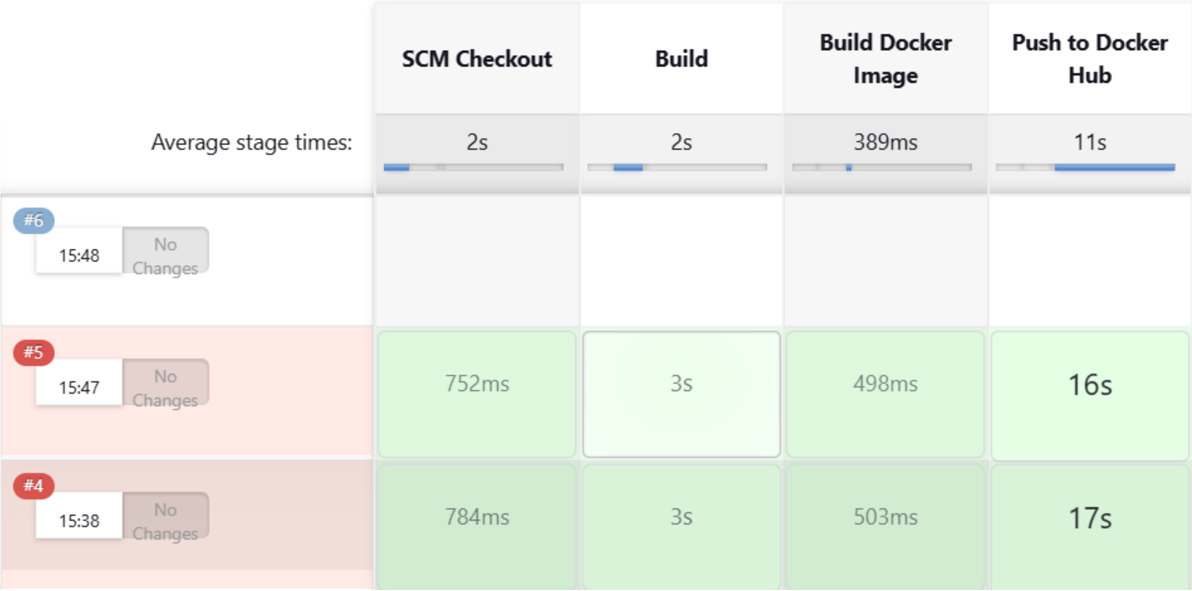
sudo vi config



Dashboard > Hey > #4

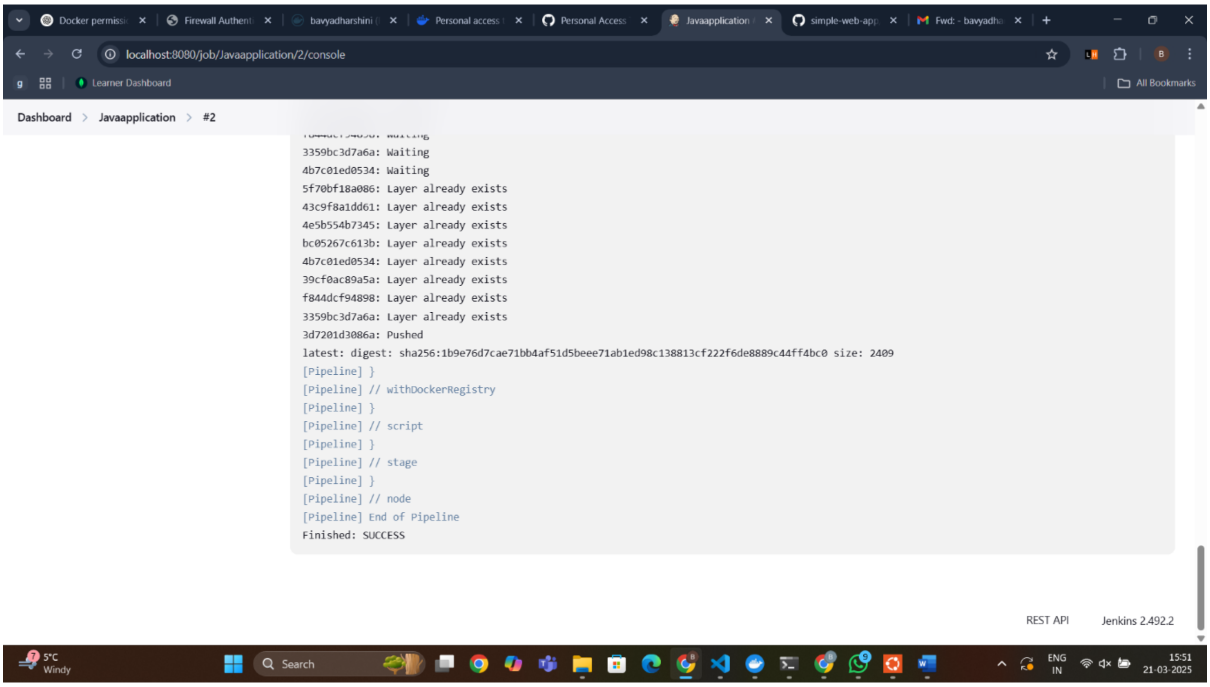
```
f844dcf94898: Waiting
3359bc3d7a6a: Waiting
4b7c01ed0534: Waiting
5f70bf18a086: Layer already exists
bc05267c613b: Layer already exists
43c9f8a1dd61: Layer already exists
4e5b554b7345: Layer already exists
39cf0ac89a5a: Layer already exists
f844dcf94898: Layer already exists
3359bc3d7a6a: Layer already exists
4b7c01ed0534: Layer already exists
e70857368bba: Pushed
latest: digest: sha256:ee930011ab43ef201063287abeaf2d4906fcb41a4d188a4920148a7d7b59499f size: 2409
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

JavaApplication Success Output



| | SCM Checkout | Build | Build Docker Image | Push to Docker Hub |
|---|---|---|---|---|
| Average stage times: | 2s | 2s | 389ms | 11s |
| #6 15:48 No Changes | | | | |
| #5 15:47 No Changes | 752ms | 3s | 498ms | 16s |
| #4 15:38 No Changes | 784ms | 3s | 503ms | 17s |

Stage View of Output



```
f844dcf94898: Waiting
3359bc3d7a6a: Waiting
4b7c01ed0534: Waiting
5f70bf18a086: Layer already exists
43c9f8a1dd61: Layer already exists
4e5b554b7345: Layer already exists
bc05267c613b: Layer already exists
4b7c01ed0534: Layer already exists
39cf0ac89a5a: Layer already exists
f844dcf94898: Layer already exists
3359bc3d7a6a: Layer already exists
3d7201d3086a: Pushed
latest: digest: sha256:1b9e76d7cae71bb4af51d5beee71ab1ed98c138813cf222f6de8889c44ff4bc0 size: 2409
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Output

**Deployment:**

1. sudo nano deployment

   **deployment.yml:**

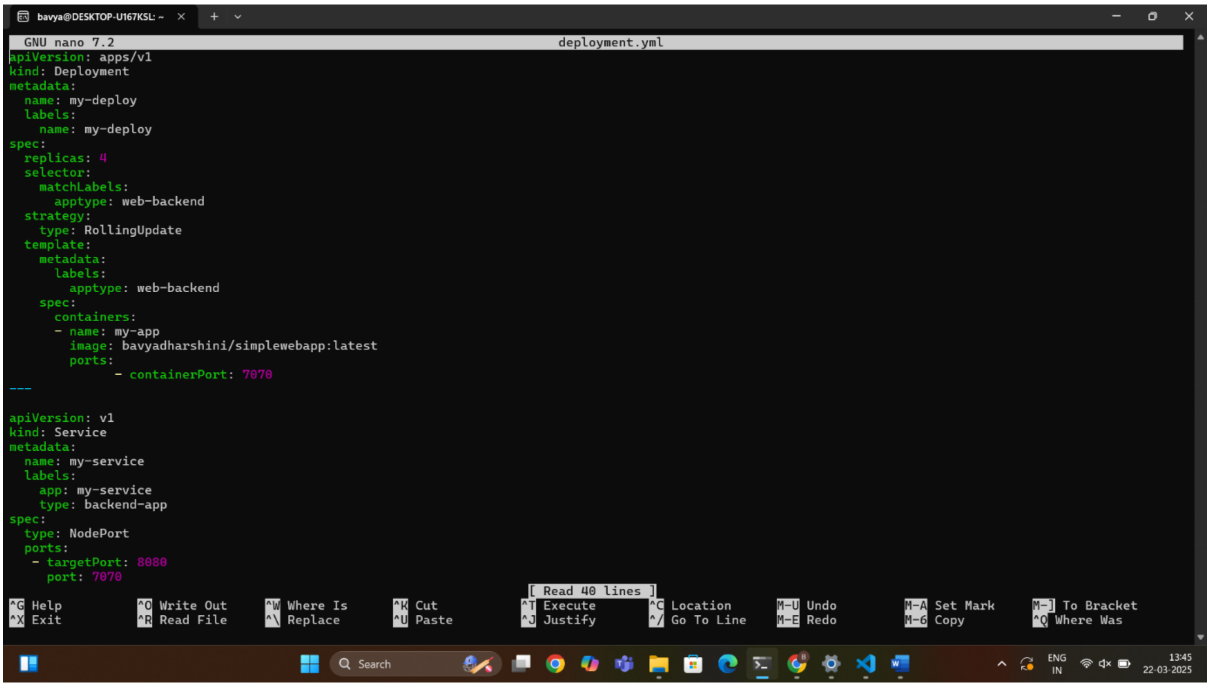
```
apiVersion: apps/v1
 kind: Deployment
 metadata:
  name: my-deploy
  labels:
   name: my-deploy
 spec:
  replicas: 4
  selector:
   matchLabels:
    apptype: web-backend
  strategy:
   type: RollingUpdate
  template:
   metadata:
    labels:
     apptype: web-backend
   spec:
    containers:
    - name: my-app
```

```
      image: bavyadharshini/simplewebapp:latest

      ports:

        - containerPort: 7076
```

2. kubectl get pod
3. minikube service my-service
4. kubectl port-forward svc/my-service 9000:7070

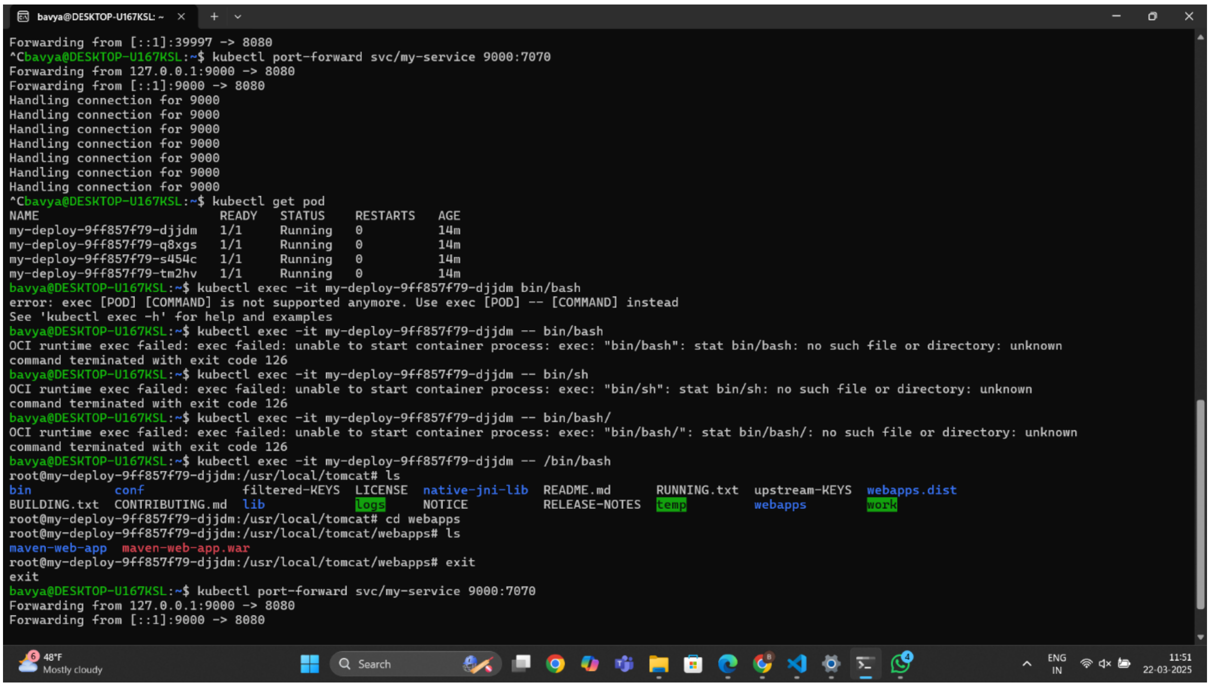
   URL: localhost:9000/maven-web-app/

**Output:**



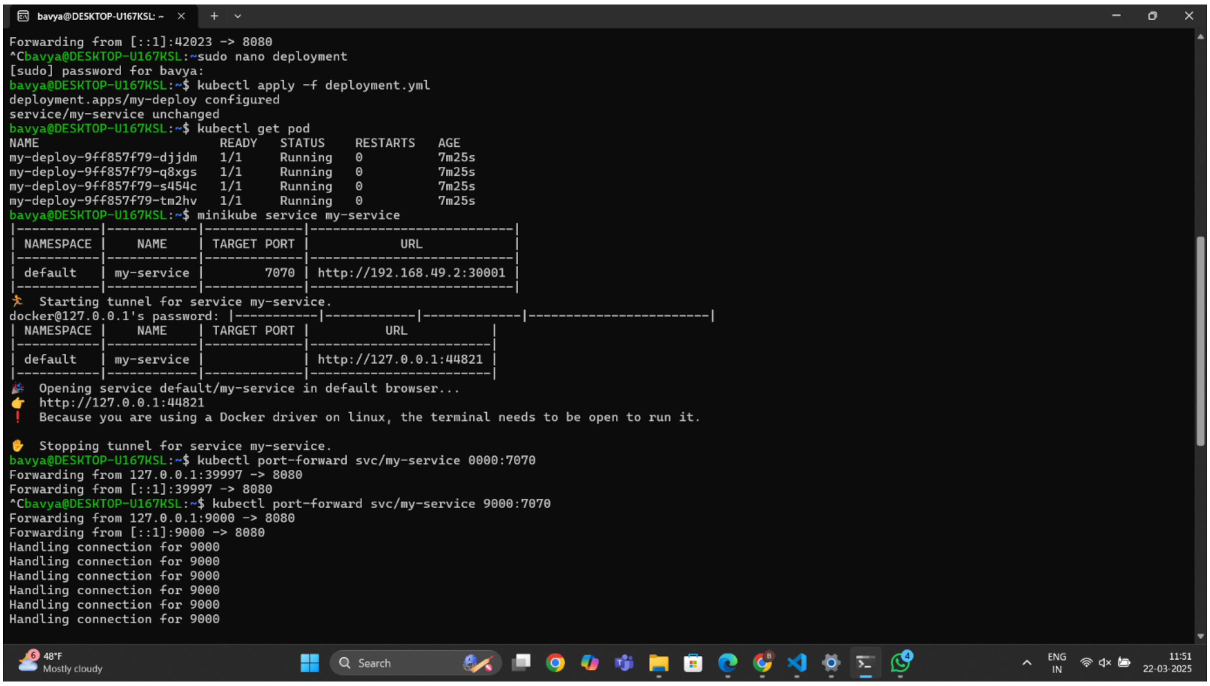
```
  GNU nano 7.2                                  deployment.yml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deploy
  labels:
    name: my-deploy
spec:
  replicas: 4
  selector:
    matchLabels:
      apptype: web-backend
  strategy:
    type: RollingUpdate
  template:
    metadata:
      labels:
        apptype: web-backend
    spec:
      containers:
      - name: my-app
        image: bavyadharshini/simplewebapp:latest
        ports:
              - containerPort: 7070
---

apiVersion: v1
kind: Service
metadata:
  name: my-service
  labels:
    app: my-service
    type: backend-app
spec:
  type: NodePort
  ports:
   - targetPort: 8080
     port: 7070
                                    [ Read 40 lines ]
```

deployment.yml



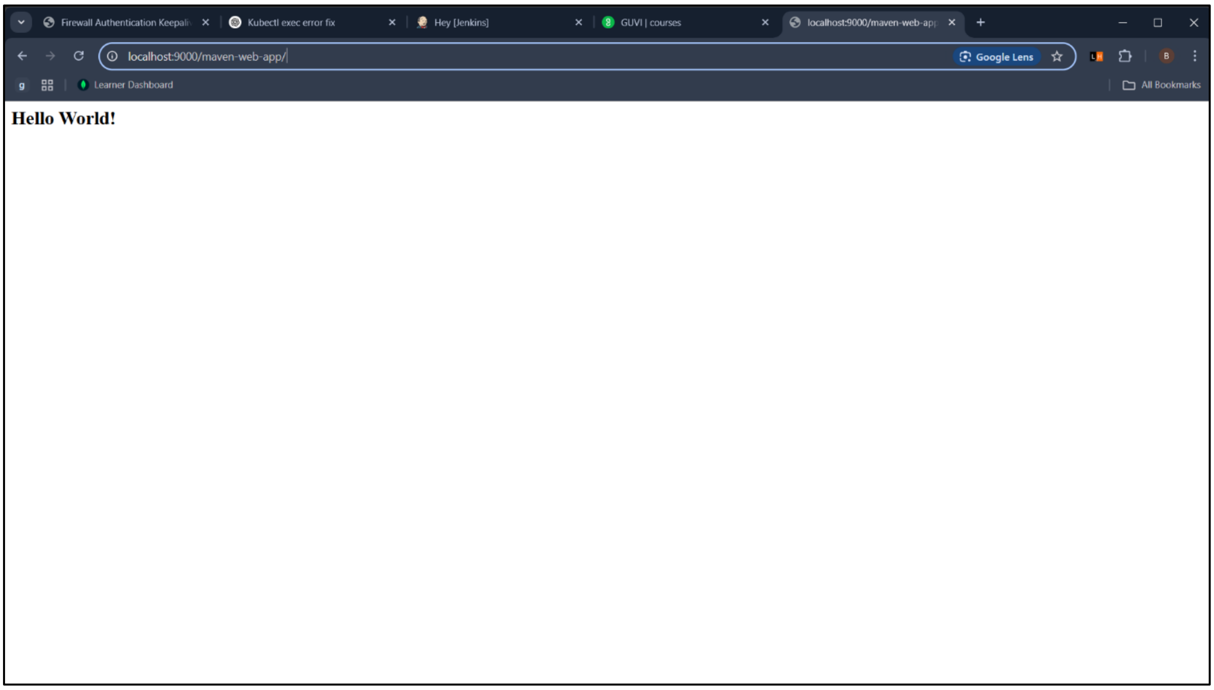
```
Forwarding from [::1]:39997 -> 8080
^Cbavya@DESKTOP-U167KSL:~$ kubectl port-forward svc/my-service 9000:7070
Forwarding from 127.0.0.1:9000 -> 8080
Forwarding from [::1]:9000 -> 8080
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
^Cbavya@DESKTOP-U167KSL:~$ kubectl get pod
NAME                         READY   STATUS    RESTARTS   AGE
my-deploy-9ff857f79-djjdm   1/1     Running   0          14m
my-deploy-9ff857f79-q8xgs   1/1     Running   0          14m
my-deploy-9ff857f79-s454c   1/1     Running   0          14m
my-deploy-9ff857f79-tm2hv   1/1     Running   0          14m
bavya@DESKTOP-U167KSL:~$ kubectl exec -it my-deploy-9ff857f79-djjdm bin/bash
error: exec [POD] [COMMAND] is not supported anymore. Use exec [POD] -- [COMMAND] instead
See 'kubectl exec -h' for help and examples
bavya@DESKTOP-U167KSL:~$ kubectl exec -it my-deploy-9ff857f79-djjdm -- bin/bash
OCI runtime exec failed: exec failed: unable to start container process: exec: "bin/bash": stat bin/bash: no such file or directory: unknown
command terminated with exit code 126
bavya@DESKTOP-U167KSL:~$ kubectl exec -it my-deploy-9ff857f79-djjdm -- bin/sh
OCI runtime exec failed: exec failed: unable to start container process: exec: "bin/sh": stat bin/sh: no such file or directory: unknown
command terminated with exit code 126
bavya@DESKTOP-U167KSL:~$ kubectl exec -it my-deploy-9ff857f79-djjdm -- bin/bash/
OCI runtime exec failed: exec failed: unable to start container process: exec: "bin/bash/": stat bin/bash/: no such file or directory: unknown
command terminated with exit code 126
bavya@DESKTOP-U167KSL:~$ kubectl exec -it my-deploy-9ff857f79-djjdm -- /bin/bash
root@my-deploy-9ff857f79-djjdm:/usr/local/tomcat# ls
bin           conf               filtered-KEYS  LICENSE  native-jni-lib  README.md      RUNNING.txt  upstream-KEYS  webapps.dist
BUILDING.txt  CONTRIBUTING.md  lib              logs     NOTICE          RELEASE-NOTES  temp         webapps        work
root@my-deploy-9ff857f79-djjdm:/usr/local/tomcat# cd webapps
root@my-deploy-9ff857f79-djjdm:/usr/local/tomcat/webapps# ls
maven-web-app  maven-web-app.war
root@my-deploy-9ff857f79-djjdm:/usr/local/tomcat/webapps# exit
exit
bavya@DESKTOP-U167KSL:~$ kubectl port-forward svc/my-service 9000:7070
Forwarding from 127.0.0.1:9000 -> 8080
Forwarding from [::1]:9000 -> 8080
```

Port Forwarding



```
Forwarding from [::1]:42023 -> 8080
^Cbavya@DESKTOP-U167KSL:~sudo nano deployment
[sudo] password for bavya:
bavya@DESKTOP-U167KSL:~$ kubectl apply -f deployment.yml
deployment.apps/my-deploy configured
service/my-service unchanged
bavya@DESKTOP-U167KSL:~$ kubectl get pod
NAME                         READY   STATUS    RESTARTS   AGE
my-deploy-9ff857f79-djjdm   1/1     Running   0          7m25s
my-deploy-9ff857f79-q8xgs   1/1     Running   0          7m25s
my-deploy-9ff857f79-s454c   1/1     Running   0          7m25s
my-deploy-9ff857f79-tm2hv   1/1     Running   0          7m25s
bavya@DESKTOP-U167KSL:~$ minikube service my-service
|-----------|------------|-------------|---------------------------|
| NAMESPACE |    NAME    | TARGET PORT |            URL            |
|-----------|------------|-------------|---------------------------|
| default   | my-service |        7070 | http://192.168.49.2:30001 |
|-----------|------------|-------------|---------------------------|
🏃  Starting tunnel for service my-service.
docker@127.0.0.1's password: |-----------|------------|-------------|------------------------|
| NAMESPACE |    NAME    | TARGET PORT |          URL           |
|-----------|------------|-------------|------------------------|
| default   | my-service |             | http://127.0.0.1:44821 |
|-----------|------------|-------------|------------------------|
🎉  Opening service default/my-service in default browser...
👉  http://127.0.0.1:44821
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.

✋  Stopping tunnel for service my-service.
bavya@DESKTOP-U167KSL:~$ kubectl port-forward svc/my-service 0000:7070
Forwarding from 127.0.0.1:39997 -> 8080
Forwarding from [::1]:39997 -> 8080
^Cbavya@DESKTOP-U167KSL:~$ kubectl port-forward svc/my-service 9000:7070
Forwarding from 127.0.0.1:9000 -> 8080
Forwarding from [::1]:9000 -> 8080
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
Handling connection for 9000
```

Handling Output



**Hello World!**

Output