

# DevOps

Day 5

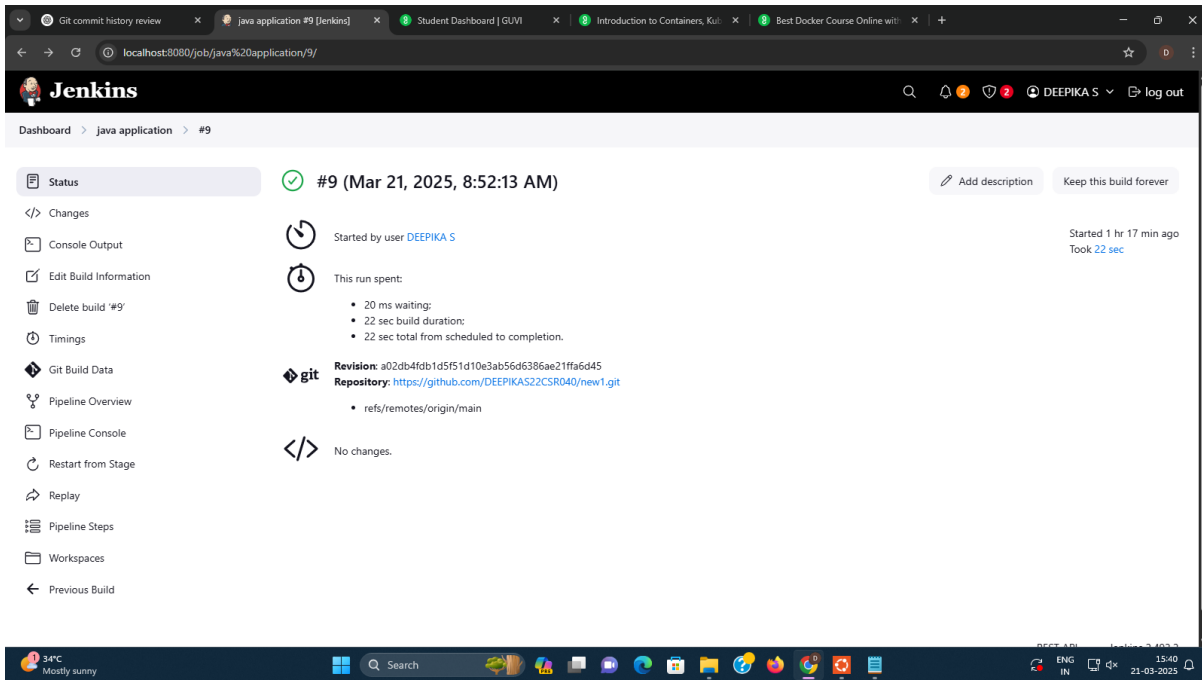
Assignment

Name : Debehaa J

Roll no :22CSR037

## PIPELINE

The screenshot displays the Jenkins web interface in a browser window. The address bar shows the URL `localhost:8080/job/java%20application/9/`. The Jenkins logo and name are at the top left, and the user `DEEPIKA S` is logged in at the top right. The main content area shows the build details for `#9 (Mar 21, 2025, 8:52:13 AM)`. The build status is successful, indicated by a green checkmark. The left sidebar contains various navigation options: Status, Changes, Console Output, Edit Build Information, Delete build #9, Timings, Git Build Data, Pipeline Overview, Pipeline Console, Restart from Stage, Replay, Pipeline Steps, Workspaces, and Previous Build. The main content area includes a 'Add description' button, a 'Keep this build forever' button, and a list of build metrics: 'Started by user DEEPIKA S', 'Started 1 hr 17 min ago', and 'Took 22 sec'. Below this, the 'This run spent:' section lists: '20 ms waiting', '22 sec build duration', and '22 sec total from scheduled to completion'. The 'Revision' is `a02db4fdb1d5f51d10e3ab56d6386ae21ffa6d45` and the 'Repository' is `https://github.com/DEEPIKA522CSR040/new1.git`. The 'refs/remotes/origin/main' branch is selected. The 'No changes' section is also visible. The bottom of the screen shows a Windows taskbar with the date `21-03-2025` and time `13:40`.



## Visudo:

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

## 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

## Deployment:

1. cd ~/.kube
2. ls
3. cat config
4. sudo vi config

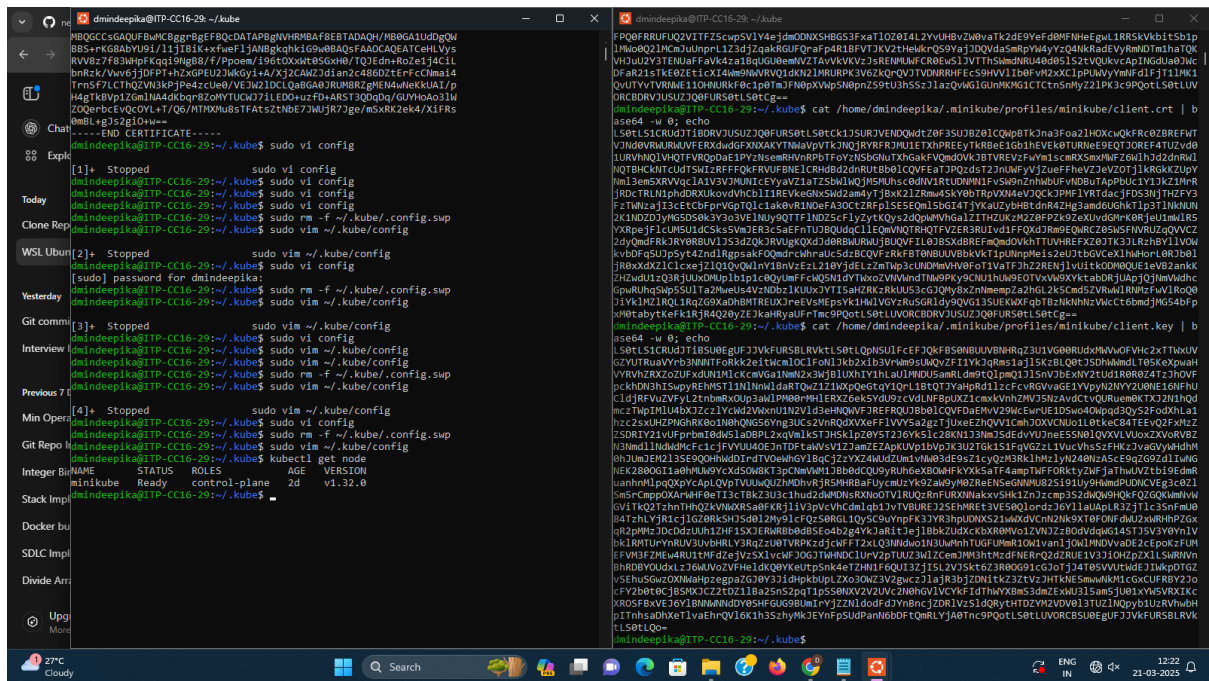
5. i

6. -data

7. cat url | base64 -w 0; echo

8. minikube start

9. kubectl get node



```
MBQGCCsGAQUFBwMBggrBgEFBQcDATAPBgNVHRBAF8BEBADAQ/MBOGA1UdGQM
BB5+rkGABYU9I/11jB1k+xfueF1jANBgkqhkiG9w0BAQsFAAOCAQEAChLlys
RVVRvZ7F3bMpfKqgl9HgB8/f/ppeom/19eXORwE6GwHb/TQ1Edm+RoZet1Jc1L
bnR2k/Vwe5j3DPT+H2GPEU2Wkdy1A/Xj32CAW21di2an2c4860ZteFfCm1a14
Trn5F7LCTH0ZV3kP3Pe42cu0/VE3J21DCLQaGAB3JMRBZgMENA4MekKUA1/p
H4gTKBvp1Z6m1NA4dkbq8Z0MYTUCJ71LEDO+uzf0+ARST3Q0qQ/QUYHoAo31M
Z0Rb6tEvoCvL+T/Q6/HTHQWu8TFatsZtN0E7JWJR7Jge/m5xRK2ek4/X1FRS
mBLg3fZG10+==
-----END CERTIFICATE-----
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
[1]+  Stopped                  sudo vi config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo rm -f ~/.kube/.config.swp
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vim ~/.kube/config
WSL Ubuntu [2]+  Stopped                  sudo vim ~/.kube/config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
[sudo] password for dmindeepika:
dmindeepika@ITP-CC16-29: ~/.kube$ sudo rm -f ~/.kube/.config.swp
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vim ~/.kube/config
Git commi [3]+  Stopped                  sudo vim ~/.kube/config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vim ~/.kube/config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo rm -f ~/.kube/.config.swp
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vim ~/.kube/config
Previous 7 [4]+  Stopped                  sudo vim ~/.kube/config
Min Operat dmindeepika@ITP-CC16-29: ~/.kube$ sudo vi config
dmindeepika@ITP-CC16-29: ~/.kube$ sudo rm -f ~/.kube/.config.swp
dmindeepika@ITP-CC16-29: ~/.kube$ sudo vim ~/.kube/config
dmindeepika@ITP-CC16-29: ~/.kube$ kubectl get node
Integer Bi NAME      STATUS    ROLES    AGE      VERSION
minikube   Ready     control-plane   2d       v1.32.0
Stack Imp dmindeepika@ITP-CC16-29: ~/.kube$
```

Deployment.yml

apiVersion: apps/v1

kind: Deployment

metadata:

name: my-deploy

labels:

name: my-deploy

spec:

replicas: 1

selector:

matchLabels:

apptype: web-backend

strategy:

```
    type: RollingUpdate
  template:
    metadata:
      labels:
        apptype: web-backend
    spec:
      containers:
      - name: my-app
        image:
        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
      nodePort: 30002
  selector:
    apptype: web-backend
```

### **JenkinsFile - pipeline script**

```
pipeline {
  agent any
```

```
stages {
  stage('scm') {
    steps {
      git branch: 'main', url: 'https://github.com/DEBEHAA/new1.git'
    }
  }
  stage('build') {
    steps {
      sh 'mvn clean'
      sh 'mvn install'
    }
  }
  stage('build to images') {
    steps {
      script {
        sh 'docker build -t deepika040/mysimplewebapplication .'
      }
    }
  }
  stage('push to hub') {
    steps {
      script {
        withDockerRegistry(credentialsId: 'docker-hub-credential', url: 'https://index.docker.io/v1/') {
          sh 'docker push DEBEHAA/mysimplewebapplication'
        }
      }
    }
  }
}
```