Java Project

DAY 6

JENKINS:

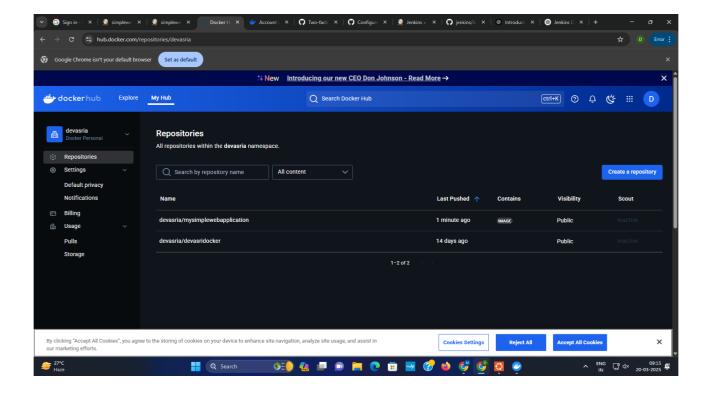
Jenkins is an open-source automation server used for Continuous Integration (CI) and Continuous Deployment (CD). It helps automate software development processes, including building, testing, and deploying applications

JENKINS PIPELINE:

A Jenkins Pipeline is a set of automated steps that define how software is built, tested, and deployed. It is written as code in a Jenkinsfile and helps implement Continuous Integration (CI) and Continuous Deployment (CD)

PIPELINE SCRIPT:

```
pipeline {
  agent any
  stages {
     stage('scm') {
        steps {
     git branch: 'main', url: 'https://github.com/devasriashok/jenkins.git'
        }
     }
     stage('build') {
        steps {
          sh "mvn clean"
          sh "mvn install"
           }
        }
    stage('build to images') {
        steps {
          script{
            sh 'docker build -t devasria/mysimplewebapplication .'
          }
    }
    }
}
```



KUBERNETESDEPLOYMENT

DEPLOY.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: 9000

apiVersion: v1 kind: Service metadata:

name: my-service

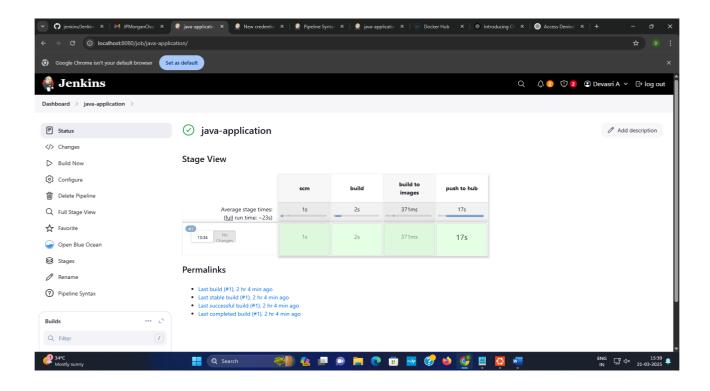
labels:

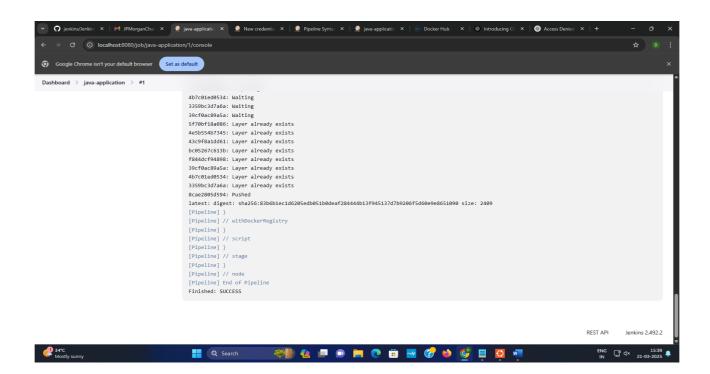
```
app: my-service
spec:
type: NodePort
ports:
- port: 9000
targetPort: 8080
nodePort: 30002
selector:
apptype: web-backend
```

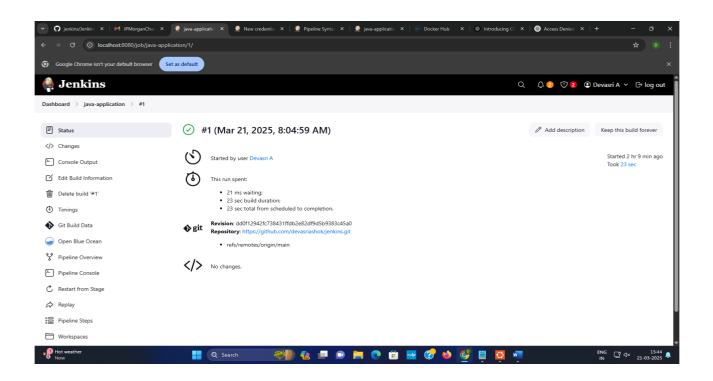
PIPELINE SCRIPT

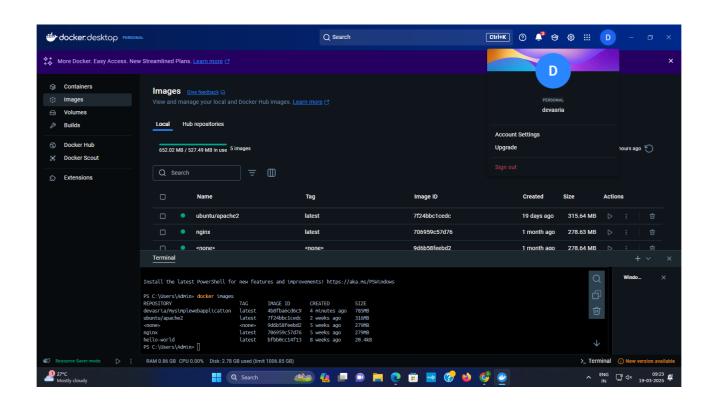
```
pipeline {
  agent any
  stages {
     stage('scm') {
        steps {
     git branch: 'main', url: 'https://github.com/devasriashok/jenkins.git'
       }
     stage('build') {
        steps {
          sh "mvn clean"
          sh "mvn install"
}
stage('build to images') {
        steps {
          script{
            sh 'docker build -t devasria/mysimplewebapplication .'
          }
  }
stage('push to hub') {
        steps {
          script{
          withDockerRegistry(credentialsId: 'docker_cre', url: 'https://index.docker.io/v1/') {
            sh 'docker push devasria/mysimplewebapplication'
         }
        }
}
}
```

KUBERNETES DEPLOYMENT









MINIKUBE COMMANDS:

minikube start

minikube status

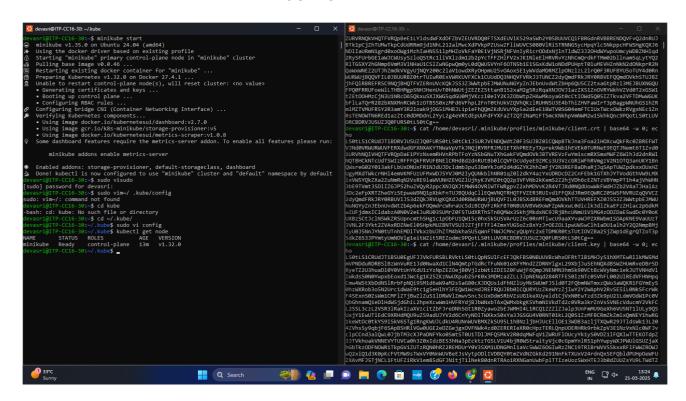
kubectl get pod

kubeclt get deploy

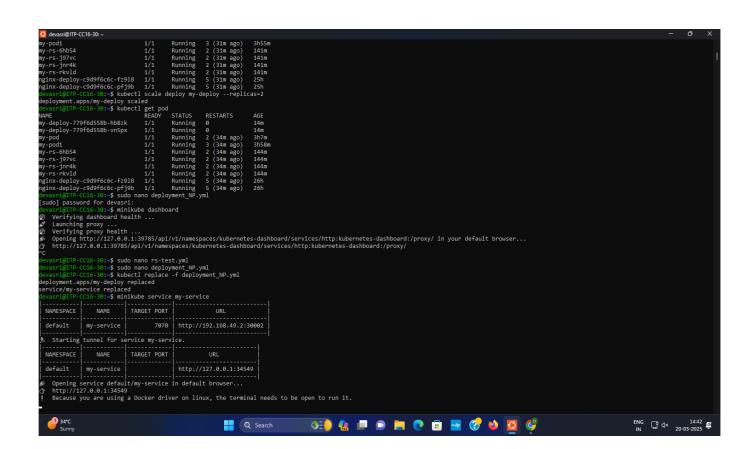
kubectl get replica

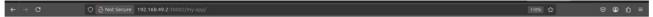
kubectl get pod -o wide

OUTPUT



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Hello World!