

FINAL PROJECT

DevOps-Day06:

JAVA APPLICATION DEPLOYMENT IN MINIKUBE

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PIPELINE:

```
pipeline {  
  
    agent any  
  
    stages {  
        stage('SCM') {  
            steps {  
                git branch: 'main', url: 'https://github.com/MugeshS-04/guvidevopsday1.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 mugeshs04/webapplication ."
    }
    }
}

stage('docker push hub') {
    steps {
    script{
        withDockerRegistry(credentialsId: 'docker-hub-cred', url:
'https://index.docker.io/v1/') {
            sh 'docker push mugeshs04/webapplication'

```

```

    }
    }
    }
}

stage('deploy webapp') {
    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'
        }
    }
}
}
}
}

```

```

service/my-service created
ubuntu@DESKTOP-MJGHIPO:~$ 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.
Docker@127.0.0.1's password: |-----|-----|-----|

```

NAMESPACE	NAME	TARGET PORT	URL
default	my-service		http://127.0.0.1:37003

```

🔵 Opening service default/my-service in default browser...
👉 http://127.0.0.1:37003
🔴 ! Because you are using a Docker driver on linux, the terminal needs to be open to run it.

👉 Stopping tunnel for service my-service.
ubuntu@DESKTOP-MJGHIPO:~$ kubectl port-forward svc/my-service 9000:9000
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

```

```
mugesh@DESKTOP-ELKSVSN: ~$ sudo apt-get install 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 ... 40833 files and directories currently installed.)
Preparing to unpack .../0-openssh-client_1:9.6p1-3ubuntu13.8_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_1:9.6p1-3ubuntu13.8_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_1:9.6p1-3ubuntu13.8_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 ...
```

```
ubuntu@DESKTOP-MJGHIPO: ~$ cat 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: nithya216/image1:latest
          ports:
            - containerPort: 9000
---
apiVersion: v1
kind: Service
metadata:
  name: my-service
  labels:
    app: my-service
```

Hello World!



