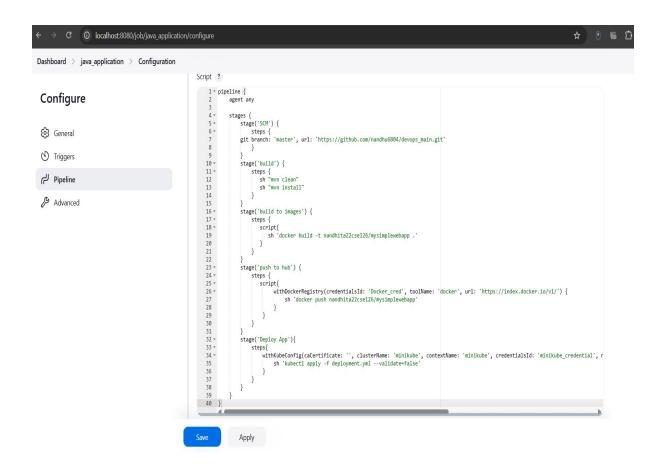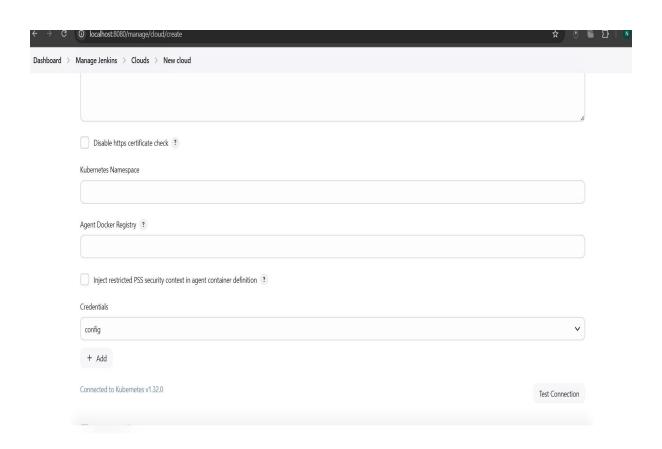# JAVA APPLICATION MINIKUBE DEPLOYMENT

```
dhu2645@LAPTOP-1TVBND2B:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Restarting existing docker container for "minikube" ...
StartHost failed, but will try again: provision: get ssh host-port: get port 22 for "minikube": docker container inspect -f "'{{(index (inde
NetworkSettings.Ports "22/tcp") 0).HostPort}}'" minikube: exit status 1
out:


err:
plate parsing error: template: :1:4: executing "" at <index (index .NetworkSettings.Ports "22/tcp") 0>: error calling index: reflect: slice i
x out of range

Updating the running docker "minikube" container ...
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
 • Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: storage-provisioner, default-storageclass
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
21 06:17:00.796627   6054 logFile.go:53] failed to close the audit log: invalid argument
dhu2645@LAPTOP-1TVBND2B:~$ cd ~/.kube
dhu2645@LAPTOP-1TVBND2B:~/.kube$ sudo vi config
do] password for nandhu2645:
dhu2645@LAPTOP-1TVBND2B:~/.kube$ kubectl get node
E     STATUS   ROLES          AGE   VERSION
ikube  Ready    control-plane  14h   v1.32.0
dhu2645@LAPTOP-1TVBND2B:~/.kube$
```

```
u2645@LAPTOP-1TVBND2B:~$ cat ~/.kube/config
rsion: v1
ers:
ster:
ertificate-authority: /home/nandhu2645/.minikube/ca.crt
xtensions:
 extension:
    last-update: Sat, 22 Mar 2025 07:45:41 UTC
    provider: minikube.sigs.k8s.io
    version: v1.35.0
 name: cluster_info
erver: https://127.0.0.1:51669
e: minikube
xts:
text:
luster: minikube
xtensions:
 extension:
    last-update: Sat, 22 Mar 2025 07:45:41 UTC
    provider: minikube.sigs.k8s.io
    version: v1.35.0
 name: context_info
amespace: default
ser: minikube
e: minikube
nt-context: minikube
 Config
rences: {}
:
e: minikube
r:
lient-certificate: /home/nandhu2645/.minikube/profiles/minikube/client.crt
lient-key: /home/nandhu2645/.minikube/profiles/minikube/client.key
u2645@LAPTOP-1TVBND2B:~$
```
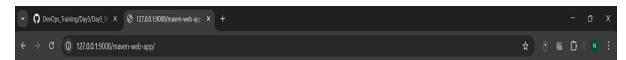
Script ?

Configure

⚙ General

🕐 Triggers

⯮ Pipeline

⯌ Advanced

```
1 ▾ pipeline {
2       agent any
3
4 ▾     stages {
5 ▾         stage('SCM') {
6 ▾             steps {
7           git branch: 'master', url: 'https://github.com/nandhu6804/devops_main.git'
8               }
9           }
10 ▾         stage('build') {
11 ▾            steps {
12                 sh "mvn clean"
13                 sh "mvn install"
14               }
15           }
16 ▾         stage('build to images') {
17 ▾            steps {
18 ▾               script{
19                     sh 'docker build -t nandhita22cse126/mysimplewebapp .'
20                   }
21               }
22           }
23 ▾         stage('push to hub') {
24 ▾            steps {
25 ▾               script{
26 ▾                  withDockerRegistry(credentialsId: 'Docker_cred', toolName: 'docker', url: 'https://index.docker.io/v1/') {
27                        sh 'docker push nandhita22cse126/mysimplewebapp'
28                      }
29                   }
30               }
31           }
32 ▾         stage('Deploy App'){
33 ▾            steps{
34                 withKubeConfig(caCertificate: '', clusterName: 'minikube', contextName: 'minikube', credentialsId: 'minikube_credential', r
35                     sh 'kubectl apply -f deployment.yml --validate=false'
36                   }
37               }
38           }
39       }
40 }
```

Save   Apply

☐ Disable https certificate check ?

Kubernetes Namespace

Agent Docker Registry ?

☐ Inject restricted PSS security context in agent container definition ?

Credentials

config ⌄

+ Add

Connected to Kubernetes v1.32.0   Test Connection

Status

Changes

Console Output

Edit Build Information

Delete build '#2'

Timings

Replay

Pipeline Steps

Workspaces

← Previous Build

→ Next Build

✓ #2 (Mar 21, 2025, 8:53:36 AM)

Add description   Keep this build forever

Started by user Nandhitha Prakasan

Started 2 hr 34 min ago
Took 0.45 sec

This run spent:

- 40 ms waiting;
- 0.45 sec build duration;
- 0.49 sec total from scheduled to completion.

No changes.

```
 hu2645@LAPTOP-1TVBN  ×    +  ∨

2645@LAPTOP-1TVBND2B:~$ cat deployment.yml
sion: apps/v1
Deployment
ta:
 my-deploy
ls:
me: my-deploy

icas: 1
ctor:
chLabels:
apptype: web-backend
tegy:
pe: RollingUpdate
late:
tadata:
labels:
   apptype: web-backend
ec:
containers:
- name: my-app
   image: nandhita22cse126/mysimplewebapp:latest
   ports:
   - containerPort: 9008



sion: v1
Service
ta:
 my-service
ls:
: my-service

 NodePort
:
argetPort: 8080
ort: 9008
odePort: 30008
ctor:
type: web-backend
```

```
645@LAPTOP-1TVBND2B:~$ minikube start
ikube v1.35.0 on Ubuntu 24.04 (amd64)
ng the docker driver based on existing profile
rting "minikube" primary control-plane node in "minikube" cluster
ling base image v0.0.46 ...
tarting existing docker container for "minikube" ...
paring Kubernetes v1.32.0 on Docker 27.4.1 ...
ifying Kubernetes components...
sing image gcr.io/k8s-minikube/storage-provisioner:v5
bled addons: default-storageclass, storage-provisioner
e! kubectl is now configured to use "minikube" cluster and "default" namespace by default
06:05:57.597826    1133 logFile.go:53] failed to close the audit log: invalid argument
645@LAPTOP-1TVBND2B:~$ ls
file  config  deployment.yml  devops_main  pod.yml  rs-test.yml
645@LAPTOP-1TVBND2B:~$ kubectl get pod
urces found in default namespace.
645@LAPTOP-1TVBND2B:~$ sudo nano deployment.yml
password for nandhu2645:
645@LAPTOP-1TVBND2B:~$ kubectl apply -f deployment.yml
ent.apps/my-deploy created
/my-service created
645@LAPTOP-1TVBND2B:~$ minikube service my-service
-----|------------|-------------|----------------------------|
PACE |    NAME    | TARGET PORT |           URL              |
-----|------------|-------------|----------------------------|
lt   | my-service |        9008 | http://192.168.58.2:30008  |
-----|------------|-------------|----------------------------|
rting tunnel for service my-service.
-----|------------|-------------|-------------------------|
PACE |    NAME    | TARGET PORT |           URL           |
-----|------------|-------------|-------------------------|
lt   | my-service |             | http://127.0.0.1:34969  |
-----|------------|-------------|-------------------------|
ning service default/my-service in default browser...
p://127.0.0.1:34969
ause you are using a Docker driver on linux, the terminal needs to be open to run it.
topping tunnel for service my-service.
06:11:30.563315    1835 logFile.go:53] failed to close the audit log: invalid argument
645@LAPTOP-1TVBND2B:~$ kubectl port-forward svc/my-service 9008:9008
ing from 127.0.0.1:9008 -> 8080
ing from [::1]:9008 -> 8080
```

Hello World!

Deployment.yml

```yaml
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: nandhita22cse126/mysimplewebapp:latest

        ports:
```

```yaml
        - containerPort: 9008


---


apiVersion: v1

kind: Service

metadata:

  name: my-service

  labels:

    app: my-service

spec:

  type: NodePort
```