

Day-6

```
ndhu2645@LAPTOP-1TVBND28:~$ 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 (index .NetworkSettings.Ports "22/tcp") 0).HostPort}}' minikube: exit status 1
out:

err:
template parsing error: template: :1:4: executing "" at <index (index .NetworkSettings.Ports "22/tcp") 0>: error calling index: reflect: slice index 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 6064 logfile.go:53] failed to close the audit log: invalid argument
ndhu2645@LAPTOP-1TVBND28:~$ cd ~/.kube
ndhu2645@LAPTOP-1TVBND28:~/.kube$ sudo vi config
do) password for nandhu2645:
ndhu2645@LAPTOP-1TVBND28:~/.kube$ kubectl get node
NAME                STATUS    ROLES    AGE   VERSION
minikube            Ready    control-plane   14h   v1.32.0
ndhu2645@LAPTOP-1TVBND28:~/.kube$
```

```
nandu2645@LAPTOP-1TVBND2B:~$ cat ~/.kube/config
Version: v1
clusters:
- cluster:
    certificate-authority: /home/nandu2645/.minikube/ca.crt
    extensions:
    - extension:
        last-update: Sat, 22 Mar 2025 07:45:41 UTC
        provider: minikube.sigs.k8s.io
        version: v1.35.0
        name: cluster_info
    server: https://127.0.0.1:51669
  name: minikube
contexts:
- context:
    cluster: minikube
    extensions:
    - extension:
        last-update: Sat, 22 Mar 2025 07:45:41 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: {}
resources:
- name: minikube
  server:
    client-certificate: /home/nandu2645/.minikube/profiles/minikube/client.crt
    client-key: /home/nandu2645/.minikube/profiles/minikube/client.key
nandu2645@LAPTOP-1TVBND2B:~$
```

Dashboard > java_application > Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

Script

```
1 pipeline {
2   agent any
3
4   stages {
5     stage('SCM') {
6       steps {
7         git branch: 'master', url: 'https://github.com/sundus886/scm_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 sunhitaz23cs128/myspringwebapp ."
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 sunhitaz23cs128/myspringwebapp"
28          }
29        }
30      }
31    }
32    stage('Deploy App') {
33      steps {
34        withKubeConfig(caCertificate: '', clusterName: 'minikube', contextName: 'minikube', credentialsId: 'minikube_credentials', r
35          sh "kubectl apply -f deployment.yml --validate=false"
36        }
37      }
38    }
39  }
40 }
```

Save Apply

localhost:3080/manage/cloud/create

Dashboard > Manage Jenkins > Clouds > New cloud

☐ 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

✓ #2 (Mar 21, 2025, 8:53:36 AM)

Add description

Keep this build forever

Changes

Console Output

Edit Build Information

Delete build '#2'

Timings

Replay

Pipeline Steps

Workspaces

Previous Build

Next Build



Started by user [Nandhika Prakashan](#)

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

```
ndhu2645@LAPTOP-1TVBND2B:~$ cat 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: nandhita22cse126/mysimplewebapp:latest
          ports:
            - containerPort: 9008
-
apiVersion: v1
kind: Service
metadata:
  name: my-service
  labels:
    app: my-service
spec:
  type: NodePort
  ports:
    - targetPort: 8080
      port: 9008
      nodePort: 30008
  selector:
    apptype: web-backend
```

```

nandhu2645@LAPTOP-1TV8ND28:~$ 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" ...
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
  * Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: default-storageclass, storage-provisioner
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
0322 06:05:57.597826    1133 logFile.go:53] failed to close the audit log: invalid argument
nandhu2645@LAPTOP-1TV8ND28:~$ ls
jenkinsfile  config  deployment.yml  devops_main  pod.yml  rs-test.yml
nandhu2645@LAPTOP-1TV8ND28:~$ kubectl get pod
No resources found in default namespace.
nandhu2645@LAPTOP-1TV8ND28:~$ sudo nano deployment.yml
[sudo] password for nandhu2645:
nandhu2645@LAPTOP-1TV8ND28:~$ kubectl apply -f deployment.yml
deployment.apps/my-deploy created
service/my-service created
nandhu2645@LAPTOP-1TV8ND28:~$ minikube service my-service

```

NAMESPACE	NAME	TARGET PORT	URL
default	my-service	9008	http://192.168.58.2:30008

```

Starting tunnel for service my-service.

```

NAMESPACE	NAME	TARGET PORT	URL
default	my-service		http://127.0.0.1:34969

```

Opening service default/my-service in default browser...
http://127.0.0.1:34969
Because you are using a Docker driver on linux, the terminal needs to be open to run it.
Stopping tunnel for service my-service.
0322 06:11:30.563315    1835 logFile.go:53] failed to close the audit log: invalid argument
nandhu2645@LAPTOP-1TV8ND28:~$ kubectl port-forward svc/my-service 9008:9008
Forwarding from 127.0.0.1:9008 -> 8080
Forwarding from [::1]:9008 -> 8080

```



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: nandhita22cse126/mysimplewebapp:latest
          ports:
            - containerPort: 9008
```

```
apiVersion: v1
kind: Service
metadata:
  name: my-service
labels:
```

app: my-service

spec:

type: NodePort