Yaml’s Files

Before this, we need to deploy the project in Docker Hub, and this is Spring boot and mysql (Student Registration Portal)

1. Pod

Create a namespace

**kubectl create ns bhavana**

**app-pod.yaml**

apiVersion: v1

kind: Pod

metadata:

name: student-app

namespace: bhavana

spec:

containers:

- name: student-app

image: bhavana686/student-app:v1

ports:

- containerPort: 80

**kubectl apply -f app-pod.yaml**

**kubectl get pods -o wide -n bhavana**

**kubectl get all -n bhavana**

2.ReplicaSet:

app-replicas.yaml

apiVersion: apps/v1

kind: ReplicaSet

metadata:

name: student-app

namespace: bhavana

spec:

replicas: 2

selector:

matchLabels:

app: student-app

template:

metadata:

labels:

app: student-app

spec:

containers:

- name: student-app

image: bhavana686/student-app:v1

ports:

- containerPort: 80

**kubectl apply -f app-replicas.yaml**

**kubectl get rs -n bhavana**

**kubectl get pods -n bhavana**

**kubectl describe rs student-app -n bhavana**

3. Deployment:

app-deployment.yaml

apiVersion: apps/v1

kind: Deployment

metadata:

name: student-app

namespace: bhavana

spec:

replicas: 2

selector:

matchLabels:

app: student-app

template:

metadata:

labels:

app: student-app

spec:

containers:

- name: student-app

image: bhavana686/student-app:v1

ports:

- containerPort: 80

env:

- name: MYSQL\_PORT

valueFrom:

configMapKeyRef:

name: student-app

key: MYSQL\_PORT

- name: MYSQL\_HOST

valueFrom:

configMapKeyRef:

name: student-app

key: MYSQL\_HOST

- name: MYSQL\_USER

valueFrom:

configMapKeyRef:

name: student-app

key: MYSQL\_USER

- name: MYSQL\_PASSWORD

valueFrom:

configMapKeyRef:

name: student-app

key: MYSQL\_PASSWORD

- name: MYSQL\_DB

valueFrom:

configMapKeyRef:

name: student-app

key: MYSQL\_DB

**kubectl apply -f app-deployment.yaml**

**kubectl get deployments -n bhavana**

**kubectl get pods -n bhavana**

**kubectl describe deployment student-app -n bhavana**

4. Service

app-service.yaml

apiVersion: v1

kind: Service

metadata:

name: student-app

namespace: bhavana

spec:

selector:

app: student-app

ports:

- port: 8081 // I have used 8081 port in project

targetPort: 80

type: LoadBalancer

**kubectl apply -f app-service.yaml**

**kubectl get svc -n bhavana**

**kubectl describe svc student-app -n bhavana**

5. ConfigMap

app-configmap.yaml

apiVersion: v1

kind: ConfigMap

metadata:

name: student-app

namespace: bhavana

data:

MYSQL\_PORT: "3306"

MYSQL\_HOST: "mysql"

MYSQL\_USER: "root"

MYSQL\_PASSWORD: "1234"

MYSQL\_DB: "bh"

**kubectl apply -f app-configmap.yaml**

**kubectl get configmap -n bhavana**

**kubectl describe configmap student-app -n bhavana**

6. PVC

app-pvc.yaml

apiVersion: v1

kind: PersistentVolumeClaim

metadata:

name: student-app

namespace: bhavana

spec:

accessModes:

- ReadWriteOnce

resources:

requests:

storage: 1Gi

**kubectl apply -f app-pvc.yaml**

**kubectl get pvc -n bhavana**

**kubectl describe pvc student-app -n bhavana**