Sample Tasks

1. Create a new Deployment with the below attributes using your own deployment definition file.

Name: httpd-frontend;  
Replicas: 3;  
Image: httpd:2.4-alpine

The manifest file deployment-definition-httpd.yaml

apiVersion: apps/v1

kind: Deployment

metadata:

name: httpd-frontend

spec:

replicas: 3

selector:

matchLabels:

name: httpd-frontend

template:

metadata:

labels:

name: httpd-frontend

spec:

containers:

- name: httpd-frontend

image: httpd:2.4-alpine

Then run $ $kubectl create -f deployment-definition-httpd.yaml

2. Create a new service to access the web application using the service-definition-1.yaml file

Name: webapp-service  
Type: NodePort  
targetPort: 8080  
port: 8080  
nodePort: 30080  
selector: simple-webapp

The manifest file service-definition.yaml

apiVersion: v1

kind: Service

metadata:

name: webapp-service

spec:

type: NodePort

ports:

- targetPort: 8080

port: 8080

nodePort: 30080

selector:

name: simple-webapp

Then run $kubectl apply -f service-definition.yaml

3. Manually schedule the pod Nginx on node01.

PODName: nginx  
Image: nginx

The manifest file pod-definition.yaml

apiVersion: v1

kind: Pod

metadata:

name: nginx

spec:

nodeName: node01

containers:

- image: nginx

name: nginx

Then run $kubectl apply -f pod-definition.yaml

4. Create a pod with the ubuntu image to run a container to sleep for 5000 seconds.

Pod Name: ubuntu-sleeper  
Command: sleep 5000

The manifest file ubuntu-sleeper.yaml

apiVersion: v1

kind: Pod

metadata:

name: ubuntu-sleeper

spec:

containers:

- name: ubuntu

image: ubuntu

command:

- "sleep"

- "5000"

Then run $kubectl apply -f ubuntu-sleeper.yaml

5. Create a multi-container pod with 2 containers. Use the spec given below.

If the pod goes into the crashloopbackoff then add sleep 1000 in the lemon container.

PODName: yellow  
Container 1 Name: lemon  
Container 1 Image: busybox  
Container 2 Name: gold  
Container 2 Image: redis

The manifest file multi-container.yaml

apiVersion: v1

kind: Pod

metadata:

name: yellow

spec:

containers:

- name: lemon

image: busybox

command:

- sleep

- "1000"

- name: gold

image: redis

Then run $kubectl apply -f multi-container.yaml