Deploy Nginx using kubernete – namespace, pod and service

Create 3 yaml files

1. **namespace.yaml**

apiVersion: v1

kind: Namespace

metadata:

name: task1

1. **nginx.yaml**

apiVersion: v1

kind: Pod

metadata:

name: nginx-pod

namespace: task1

labels:

app: nginx # Add this label to match the service selector

spec:

containers:

- name: nginx

image: nginx:latest

ports:

- containerPort: 80

1. **service.yaml**

apiVersion: v1

kind: Service

metadata:

name: nginx-service

namespace: task1

spec:

selector:

app: nginx # Matches the label of the pods created by the deployment

ports:

- protocol: TCP # Protocol for the service

port: 80 # Port exposed by the service

targetPort: 80 # Port exposed by the container in the pod

nodePort: 30080 # The fixed port on the node to access the service

type: NodePort # Exposes the service on a static port on all cluster nodes

After all 3 YAML has been created, deploy them on minikube

kubectl apply -f namespace.yaml

kubectl apply -f nginx.yaml

kubectl apply -f service.yaml

Check if all this has been deployed

kubectl get all -A

kubectl get all -n task1 or

kubectl get pods -n task1

kubectl get svc -n task1

Now access Nginx default webpage using minikube IP

minikube ip

On browser: minikube-ip:30080

192.168.49.2:30080