Date: 02.07.2025



Copyright @ 2024 PibyThree.com All Rights Reserved

Write the YAML manifest files to deploy an Nginx web server in a Kubernetes cluster and expose it via a Service.

Contents

[1. Manifest Files 2](#_Toc202366317)

[nginx-deployment.yaml 2](#_Toc202366318)

[nginx-service.yaml 2](#_Toc202366319)

[2. Terminal Commands 2](#_Toc202366320)

# 1. Manifest Files

|  |  |
| --- | --- |
| nginx-deployment.yaml | nginx-service.yaml |
| apiVersion: apps/v1  kind: Deployment  metadata:  name: nginx-deployment  labels:  app: nginx  spec:  replicas: 2  selector:  matchLabels:  app: nginx  template:  metadata:  labels:  app: nginx  spec:  containers:  - name: nginx  image: nginx:latest  ports:  - containerPort: 80 | apiVersion: v1  kind: Service  metadata:  name: nginx-service  spec:  selector:  app: nginx  type: LoadBalancer  ports:  - protocol: TCP  port: 80  targetPort: 80 |

# 2. Terminal Commands

|  |  |
| --- | --- |
| Terminal 1 | Terminal 2 |
| 01 minikube start  02 minikube status  04 kubectl apply -f nginx-deployment.yaml  05 kubectl apply -f nginx-service.yaml  06 kubectl get svc nginx-service  07 sudo socat TCP-LISTEN:8080,fork TCP:<External\_IP>:80 | 03 minikube tunnel |

Access via: http://<EC2\_IP>:8080

Other commands to verify if everything is running as expected

* kubectl get pods
* kubectl get svc
* kubectl get deployment
* kubectl get replicaset
* curl $(minikube service nginx-service --url) 🡨 does not require external IP or minikube tunnel to run in background