

Module 7: Kubernetes Assignment -2

Tasks To Be Performed:

1. Use the previous deployment
2. Create a service of type NodePort for NGINX deployment
3. Check the NodePort service on a browser to verify

SOLUTION:

1. Use the previous deployment

2. Create a service of type NodePort for NGINX deployment

```
ubuntu@ip-172-31-4-255:~$ sudo nano nginx-service.yaml
```

i-0868263520b95d509 (K8S-M)

PublicIPs: 54.241.63.85 PrivateIPs: 172.31.4.255

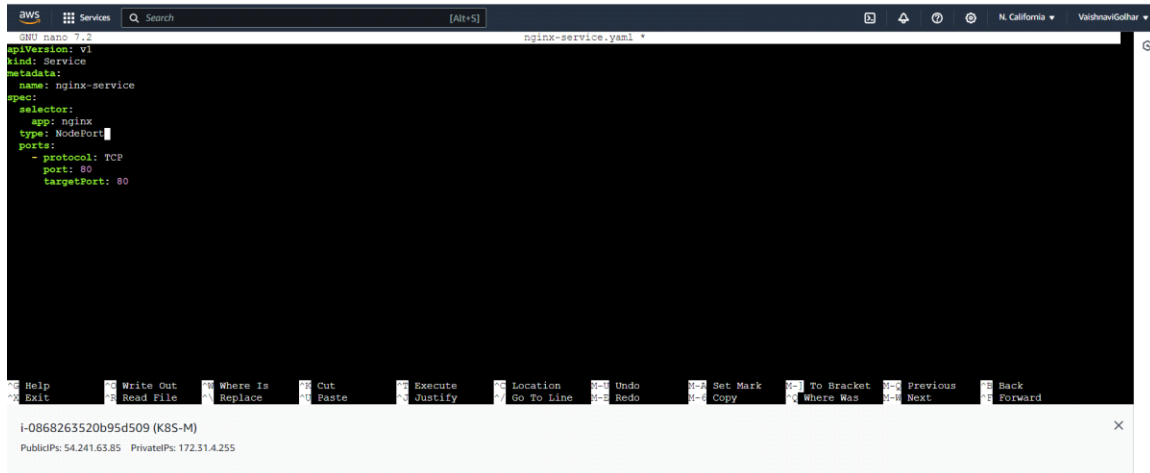
The screenshot shows the Kubernetes documentation website. The left sidebar contains a navigation menu with categories like Documentation, Getting started, Concepts, and Services, Load Balancing, and Networking. The main content area is titled "Service" and includes a YAML manifest for a Service named "my-service". The manifest specifies the API version, kind, metadata, spec, selector, and ports. The right sidebar contains a list of links for further reading, including "Service API reference", "Edit this page", "Create child page", "Create an issue", and "Print entire section".

Service

```
apiVersion: v1
kind: Service
metadata:
  name: my-service
spec:
  selector:
    app.kubernetes.io/name: MyApp
  ports:
    - protocol: TCP
      port: 80
      targetPort: 9376
```

Applying this manifest creates a new Service named "my-service" with the default ClusterIP service type. The Service targets TCP port 9376 on any Pod with the app.kubernetes.io/name: MyApp label.

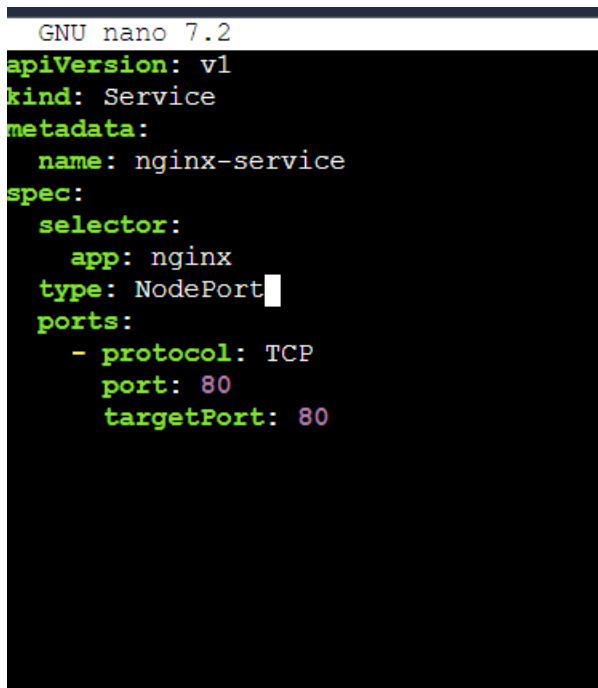
Kubernetes assigns this Service an IP address (the cluster IP), that is used by the virtual IP address mechanism. For more details on that mechanism, read [Virtual IPs and Service Proxies](#).



The screenshot shows a terminal window with the AWS logo and 'Services' tab at the top. The nano editor is open, editing a file named 'nginx-service.yaml'. The content of the file is a Kubernetes Service manifest for 'nginx-service'. The terminal window title is 'i-0868263520b95d509 (K8S-M)' and it shows public and private IP addresses.

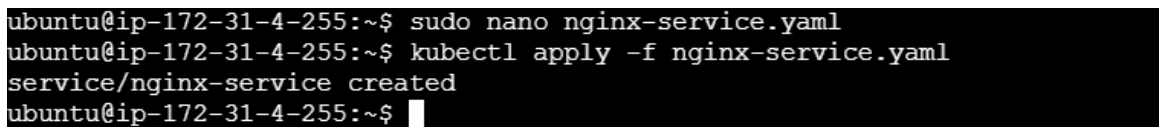
```
GNU nano 7.2 nginx-service.yaml
apiVersion: v1
kind: Service
metadata:
  name: nginx-service
spec:
  selector:
    app: nginx
  type: NodePort
  ports:
    - protocol: TCP
      port: 80
      targetPort: 80
```

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PublicIPs: 54.241.63.85 PrivateIPs: 172.31.4.255



This is a close-up view of the nano editor's content, showing the same Kubernetes Service manifest as the first screenshot.

```
GNU nano 7.2
apiVersion: v1
kind: Service
metadata:
  name: nginx-service
spec:
  selector:
    app: nginx
  type: NodePort
  ports:
    - protocol: TCP
      port: 80
      targetPort: 80
```



The terminal shows the execution of two commands: 'sudo nano nginx-service.yaml' and 'kubectl apply -f nginx-service.yaml'. The output of the second command is 'service/nginx-service created'.

```
ubuntu@ip-172-31-4-255:~$ sudo nano nginx-service.yaml
ubuntu@ip-172-31-4-255:~$ kubectl apply -f nginx-service.yaml
service/nginx-service created
ubuntu@ip-172-31-4-255:~$
```

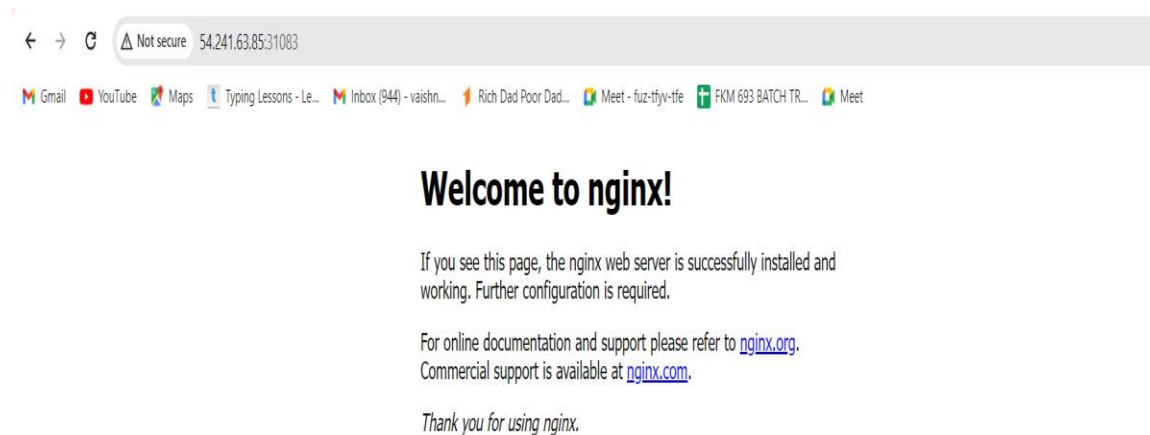
i-0868263520b95d509 (K8S-M)
PublicIPs: 54.241.63.85 PrivateIPs: 172.31.4.255

```
ubuntu@ip-172-31-4-255:~$ kubectl get service
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
kubernetes           ClusterIP   10.96.0.1     <none>         443/TCP          36m
nginx-service        NodePort    10.105.225.162 <none>         80:31083/TCP     30s
ubuntu@ip-172-31-4-255:~$
```

i-0868263520b95d509 (K8S-M)

PublicIPs: 54.241.63.85 PrivateIPs: 172.31.4.255

3. Check the NodePort service on a browser to verify



```
ubuntu@ip-172-31-4-255:~$ kubectl get svc nginx-service
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
nginx-service        NodePort    10.105.225.162 <none>         80:31083/TCP     3m8s
ubuntu@ip-172-31-4-255:~$
```

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PublicIPs: 54.241.63.85 PrivateIPs: 172.31.4.255

