

Module 7: Kubernetes Assignment - 2

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Course Offered: -Advanced Cloud Computing and Devops

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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

1. Use the previous deployment

This is my previous deployment.

```
ubuntu@ip-172-31-30-75:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-576c6b7b6-jh55k   1/1     Running   0           4m48s
nginx-deployment-576c6b7b6-qwq7d   1/1     Running   0           4m48s
nginx-deployment-576c6b7b6-vql56   1/1     Running   0           4m48s
ubuntu@ip-172-31-30-75:~$ kubectl get nodes
NAME                                STATUS   ROLES    AGE   VERSION
ip-172-31-19-153                    Ready   <none>   12m   v1.30.10
ip-172-31-19-163                    Ready   <none>   14m   v1.30.10
ip-172-31-30-75                    Ready   control-plane 23m   v1.30.10
ubuntu@ip-172-31-30-75:~$
```

2. Create a service of type NodePort for NGINX deployment

In this we need to create the file service.yml and paste the below code in this yml

```
apiVersion: v1
kind: Service
metadata:
  name: my-service
spec:
  type: NodePort
  selector:
    app: nginx
  ports:
    - port: 80
      # By default and for convenience, the `targetPort` is set to
      # the same value as the `port` field.
      targetPort: 80
      # Optional field
      # By default and for convenience, the Kubernetes control plane
      # will allocate a port from a range (default: 30000-32767)
      nodePort: 30007
```

Now I go to master server and create new file name is service.yml and paste above code in this file.

```
GNU nano 7.2 service.yml *
apiVersion: v1
kind: Service
metadata:
  name: my-service
spec:
  type: NodePort
  selector:
    app.kubernetes.io/name: MyApp
  ports:
    - port: 80
      # By default and for convenience, the `targetPort` is set to
      # the same value as the `port` field.
      targetPort: 80
      # Optional field
      # By default and for convenience, the Kubernetes control plane
      # will allocate a port from a range (default: 30000-32767)
      nodePort: 30007
```

Now We need to apply this service in our master node.
So command is **kubectl apply -f service.yml**

```
ubuntu@ip-172-31-30-75:~$ kubectl apply -f service.yml
service/my-service created
ubuntu@ip-172-31-30-75:~$
```

The service successfully deployed now we need to check the services

So need to run this command

Kubectl get svc

```
ubuntu@ip-172-31-30-75:~$ kubectl get svc
NAME                TYPE          CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
kubernetes          ClusterIP    10.96.0.1       <none>        443/TCP          28m
my-service          NodePort     10.103.231.121  <none>        80:30007/TCP    68s
ubuntu@ip-172-31-30-75:~$
```

You will see there is two service running here.

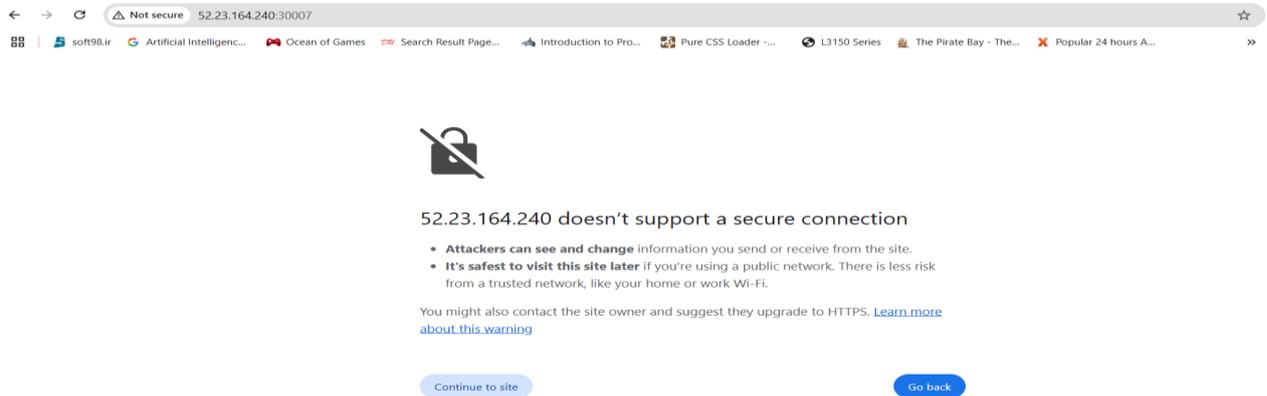
Now we have just created my-service in our infra

Now you can see this service which node has running so this command will help you to check which service which ip address and which node so command give you detailed information.

```
ubuntu@ip-172-31-30-75:~$ kubectl get pods -o wide
NAME                                READY   STATUS    RESTARTS   AGE   IP              NODE                NOMINATED NODE   READINESS GATES
nginx-deployment-576c6b7b6-jh55k    1/1     Running  0          11m   10.244.2.3     ip-172-31-19-153   <none>           <none>
nginx-deployment-576c6b7b6-qwq7d    1/1     Running  0          11m   10.244.1.2     ip-172-31-19-163   <none>           <none>
nginx-deployment-576c6b7b6-vql56    1/1     Running  0          11m   10.244.2.2     ip-172-31-19-153   <none>           <none>
ubuntu@ip-172-31-30-75:~$
```

Now we need to access this service as public ip address with port number.
Port no is 30007.we deployed as a type node port.

3. Check the NodePort service on a browser to verify



Click Continue to site

This is my master web page



This is my worker node1 web page



This is my worker node 2 web page

