# Module-9: Container Orchestration using Kubernetes Part - II

## Demo Document - 1

# DEMO-1: Services

1. Before creating a new service create an nginx deployment to work upon

   Command: kubectl create deployment nginx –image=nginx

```
edureka@kmaster:~$ kubectl create deployment nginx1 --image=nginx
deployment.apps/nginx1 created
```

   OR you can create a yaml file to create nginx deployment

   create a nginx.yaml file

```
apiVersion: apps/v1beta2
kind: Deployment
metadata:
  name: nginx-deployment
spec:
  selector:
    matchLabels:
      app: nginx
  replicas: 2
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - name: nginx
        image: nginx:1.7.9
        ports:
        - containerPort: 80
```

   Save the file and execute:
   Command: kubectl create -f nginx.yaml

2. Verify that pod is scheduled and running properly

   Command: kubectl get pods

```
edureka@kmaster:~$ kubectl get pods
NAME                                READY     STATUS    RESTARTS   AGE
nginx-deployment-67594d6bf6-crbg9   1/1       Running   0          5m
nginx-deployment-67594d6bf6-hl98c   1/1       Running   0          5m
```

3. Get the deployment details

   Command: kubectl get deployment

```
edureka@kmaster:~$ kubectl get deployments
NAME               DESIRED   CURRENT   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   2         2         2            2           5m
```

4. To create the service execute

   Command: kubectl expose deployment deploymentName –type=NodePort –port=80

```
edureka@kmaster:~$ kubectl expose deployment nginx-deployment --type=NodePort --port=80
service/nginx-deployment exposed
```

5. List all the services and note down the service port by running the get service command

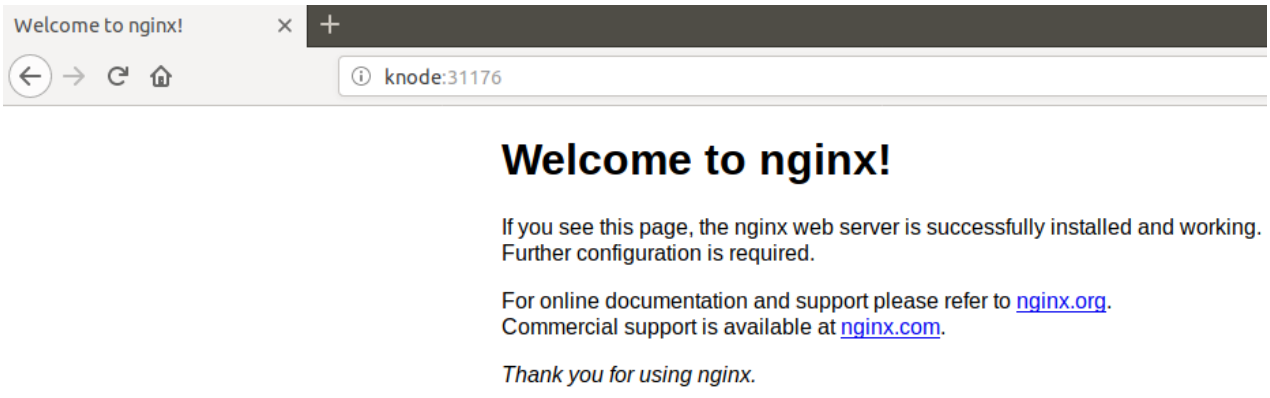
   Command: kubectl get service

```
edureka@kmaster:~$ kubectl get service
NAME               TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)        AGE
kubernetes         ClusterIP   10.96.0.1       <none>        443/TCP        19h
nginx-deployment   NodePort    10.101.47.79    <none>        80:31176/TCP   3m
```

   over here it's using port number 31176

6. Now open the browser and type in:
   nodeName:portNumber

   to verify



7. To get more details about a particular service

   Command: kubectl describe svc <serviceName>

```
edureka@kmaster:~$ kubectl describe svc nginx-deployment
Name:                     nginx-deployment
Namespace:                default
Labels:                   app=nginx
Annotations:              <none>
Selector:                 app=nginx
Type:                     NodePort
IP:                       10.101.47.79
Port:                     <unset>  80/TCP
TargetPort:               80/TCP
NodePort:                 <unset>  31176/TCP
Endpoints:                192.168.177.194:80,192.168.177.195:80
Session Affinity:         None
External Traffic Policy:  Cluster
Events:                   <none>
```