**Step 1 - Creating a Pod with Label NGINX**

**Create a YAML File**

**vi pod.yaml**

apiVersion: v1

kind: Pod

metadata:

name: label-demo

labels:

environment: production

app: nginx

spec:

containers:

- name: nginx

image: nginx

ports:

- containerPort: 80

kubectl create -f pod.yaml



**Valide if Pod is running correctly**

Kubectl get pods



**Step 2 - Creating a Node Port Service**

**vi pod-node-selector.yaml**

apiVersion: v1

kind: Service

metadata:

name: nginx-nodeport

spec:

type: NodePort

ports:

- port: 8080

targetPort: 80

nodePort: 30111

selector:

app: nginx

kubectl create -f nopdeport-service.yaml

**Validate Service is running NodePort**



**Step 3 - Test Node Port Service**

kubectl get nodes -o wide

curl <Kubernetes-master\_IP\_Addr>:30111

curl <Worker-1\_IP\_Addr>:30111

curl <Worker-2\_IP\_Addr>:30111

**Step 4 - Create a Service Cluster-IP**

**Use the same Pod created in the last steps**

**Create a Service Cluster-IP YAML File**

vi cluster-ip-service.yaml

apiVersion: v1

kind: Service

metadata:

name: nginx

spec:

ports:

- port: 8080

targetPort: 80

selector:

app: nginx

kubectl create -f cluster-ip-service.yaml

**Validate the Cluster-IP Service and the IP address**

Nginx - Cluster IP - IP Addres

**Test the access to the Pod with the Cluster-IP Address**

Example:

curl 10.109.82.47:8080

**Step 5 - Delete both services NodePort and Cluster-IP**

kubectl delete svc nginx-nodeport

kubectl delete svc nginx

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