

Tasks To Be Performed:

1. Use the previous deployment
2. Deploy an NGINX deployment of 3 replicas
3. Create an NGINX service of type ClusterIP
4. Create an ingress service/ Apache to Apache service/ NGINX to NGINX service

1. Use the previous deployment

```
EKS $kubectl create deployment nginx --image=nginx --replicas=3
deployment.apps/nginx created
EKS $kubectl expose deployment nginx --type=LoadBalancer --port=80
service/nginx exposed
EKS $kubectl get deployment nginx
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
nginx     3/3     3            3           82s
EKS $
```

2. Deploy an NGINX deployment of 3 replicas

```
kind: Deployment
metadata:
  name: nginx-deployment
  labels:
    app: nginx
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: nginx:latest
          ports:
            - containerPort: 80
```

```
EKS $vi nginx-deployment.yaml
EKS $kubectl apply -f nginx-deployment.yaml
deployment.apps/nginx-deployment created
EKS $kubectl get deployments
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
nginx	5/5	5	5	32m
nginx-deployment	3/3	3	3	11s

```
EKS $
```

3. Create an NGINX service of type ClusterIP

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

```
EKS $vi nginx-service.yaml
EKS $kubectl apply -f nginx-service.yaml
service/nginx-service created
EKS $kubectl get svc
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
kubernetes	ClusterIP	10.100.0.1	<none>	443/TCP	58m
nginx	LoadBalancer	10.100.20.13	af788c154bf1448d29284dbcc9f7581b-1109873422.ap-south-1.elb.amazonaws.com	80:30194/TCP	37m
nginx-nodeport-service	ClusterIP	10.100.253.161	<none>	80/TCP	29m
nginx-service	ClusterIP	10.100.210.180	<none>	80/TCP	11s

```
EKS $
```

4. Create an ingress service/ Apache to Apache service/ NGINX to NGINX service

```
EKS $kubectl apply -f https://raw.githubusercontent.com/kubernetes/ingress-nginx/main/deploy/static/provider/cloud/deploy.yaml
namespace/ingress-nginx created
serviceaccount/ingress-nginx created
serviceaccount/ingress-nginx-admission created
role.rbac.authorization.k8s.io/ingress-nginx created
role.rbac.authorization.k8s.io/ingress-nginx-admission created
clusterrole.rbac.authorization.k8s.io/ingress-nginx created
clusterrole.rbac.authorization.k8s.io/ingress-nginx-admission created
rolebinding.rbac.authorization.k8s.io/ingress-nginx created
rolebinding.rbac.authorization.k8s.io/ingress-nginx-admission created
clusterrolebinding.rbac.authorization.k8s.io/ingress-nginx created
clusterrolebinding.rbac.authorization.k8s.io/ingress-nginx-admission created
configmap/ingress-nginx-controller created
service/ingress-nginx-controller created
service/ingress-nginx-controller-admission created
deployment.apps/ingress-nginx-controller created
job.batch/ingress-nginx-admission-create created
job.batch/ingress-nginx-admission-patch created
ingressclass.networking.k8s.io/nginx created
validatingwebhookconfiguration.admissionregistration.k8s.io/ingress-nginx-admission created
EKS $
```

```
EKS $kubectl get pods -n ingress-nginx
NAME                                     READY   STATUS    RESTARTS   AGE
ingress-nginx-controller-86559dfd66-ggqdvz 1/1     Running   0           57s
EKS $vi nginx-ingress.yaml
EKS $kubectl apply -f nginx-ingress.yaml
ingress.networking.k8s.io/nginx-ingress created
EKS $
```

```
EKS $kubectl get ingress
NAME      CLASS  HOSTS      ADDRESS                                                                 PORTS   AGE
nginx-ingress  nginx  nginx.local a5f639397da7c40ed8b2b6d56a92db2f-1217989043.ap-south-1.elb.amazonaws.com 80      30s
EKS $
```

```
EKS $kubectl get pods -n ingress-nginx
NAME                                     READY   STATUS    RESTARTS   AGE
ingress-nginx-controller-86559dfd66-ggqdvz 1/1     Running   0           5m12s
EKS $kubectl get svc -n ingress-nginx
NAME      AGE      TYPE      CLUSTER-IP      EXTERNAL-IP      PORT(S)
ingress-nginx-controller  LoadBalancer  10.100.53.145    a5f639397da7c40ed8b2b6d56a92db2f-1217989043.ap-south-1.elb.amazonaws.com 80:32342/TCP,443:32423/TCP
ingress-nginx-controller-admission  ClusterIP      10.100.210.233  <none>           443/TCP
EKS $kubectl get ingress
NAME      CLASS  HOSTS      ADDRESS                                                                 PORTS   AGE
nginx-ingress  nginx  nginx.local a5f639397da7c40ed8b2b6d56a92db2f-1217989043.ap-south-1.elb.amazonaws.com 80      3m49s
EKS $
```