

Module-9: Kubernetes Assignment - 5

You have been asked to:

- Use the previous deployment
- Deploy an nginx deployment of 3 replicas
- Create an nginx service of type clusterip
- Create an ingress service /apache to apache service /nginx to nginx service

```
ubuntu@masternode: ~$ kubectl apply -f https://raw.githubusercontent.com/kubernetes/ingress-nginx/controller-v1.3.0/deploy/static/provider/baremetal/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
ubuntu@masternode: ~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get pods --namespace ingress-nginx  
NAME                                READY    STATUS    RESTARTS   AGE  
ingress-nginx-admission-create-6tspx 0/1      Completed 0           8m20s  
ingress-nginx-admission-patch-16mwd  0/1      Completed 2           8m20s  
ingress-nginx-controller-67fbb95784-77g4k 1/1      Running   0           8m20s  
ubuntu@masternode:~$ kubectl get svc --namespace ingress-nginx  
NAME                                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)  
ingress-nginx-controller            NodePort    10.109.185.51 <none>         80:30934/TCP,443:30554/TCP  
ingress-nginx-controller-admission  ClusterIP   10.109.2.234  <none>         443/TCP  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl scale deployment assignment1-nginx-deployment --replicas 3  
deployment.apps/assignment1-nginx-deployment scaled  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get deploy  
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE  
apache-deployment                  3/3      3              3            116s  
assignment1-nginx-deployment       3/3      3              3            3h27m  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get pods  
NAME                                READY    STATUS    RESTARTS    AGE  
apache-deployment-8c8bd99f6-7fbbc   1/1      Running   0            20s  
apache-deployment-8c8bd99f6-9xfvg   1/1      Running   0            20s  
apache-deployment-8c8bd99f6-bfktz   1/1      Running   0            20s  
assignment1-nginx-deployment-75f5f7957b-9bw6v 1/1      Running   0            3h25m  
assignment1-nginx-deployment-75f5f7957b-mgfkf 1/1      Running   0            3h25m  
assignment1-nginx-deployment-75f5f7957b-q9sc9 1/1      Running   0            171m  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl get svc  
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE  
apache-service      ClusterIP   10.96.187.84   <none>         3001/TCP   43h  
clusterip-service   ClusterIP   10.102.44.255 <none>         3000/TCP   43h  
kubernetes           ClusterIP   10.96.0.1     <none>         443/TCP    47h  
ubuntu@masternode:~$
```

```
ubuntu@masternode: ~  
ubuntu@masternode:~$ kubectl apply -f ingres.yaml  
ingress.networking.k8s.io/ingress created  
ubuntu@masternode:~$
```

```
ubuntu@masternode:~$ cat ingres.yaml
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: ingress
  annotations:
    nginx.ingress.kubernetes.io/rewrite-target: /
spec:
  ingressClassName: nginx
  rules:
  - http:
      paths:
      - path: /nginx
        pathType: Prefix
        backend:
          service:
            name: clusterip-service
            port:
              number: 80
      - path: /apache
        pathType: Prefix
        backend:
          service:
            name: apache-service
            port:
              number: 80
ubuntu@masternode:~$
```

Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3:\$case=tags:true%5Cclient=false:\$regex=tags:false%5Cclient:fa...

Instances (1/3) Info

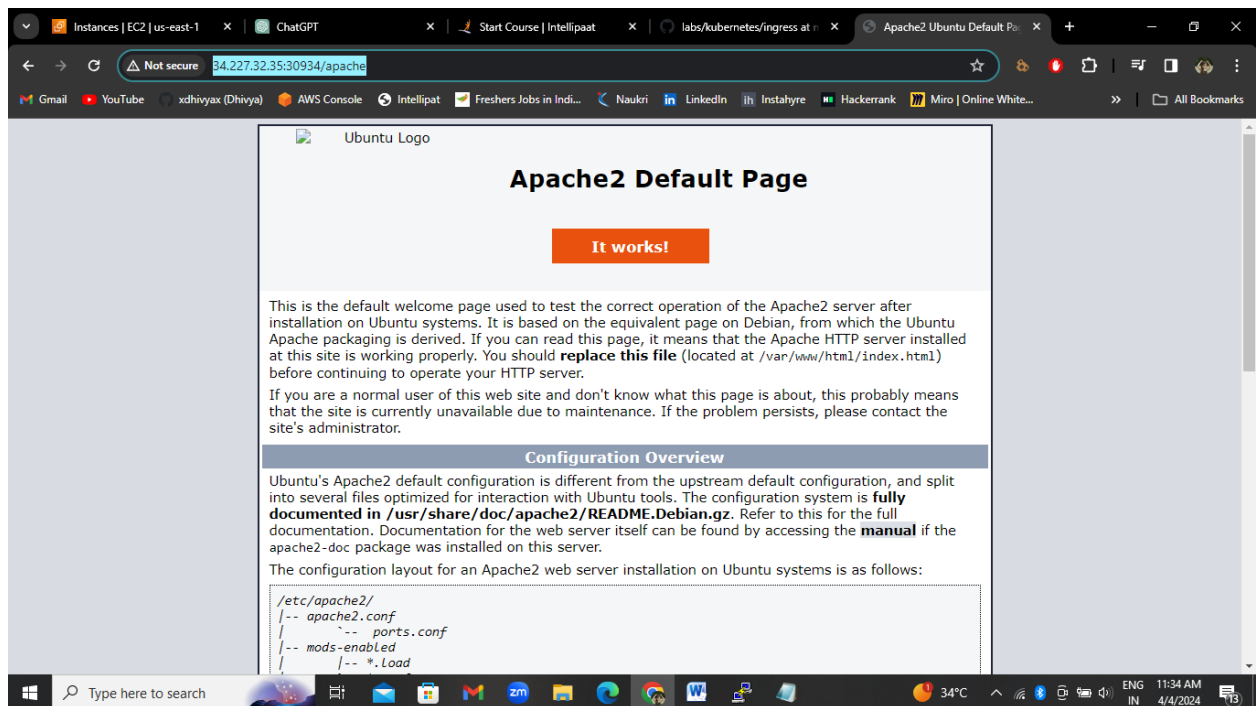
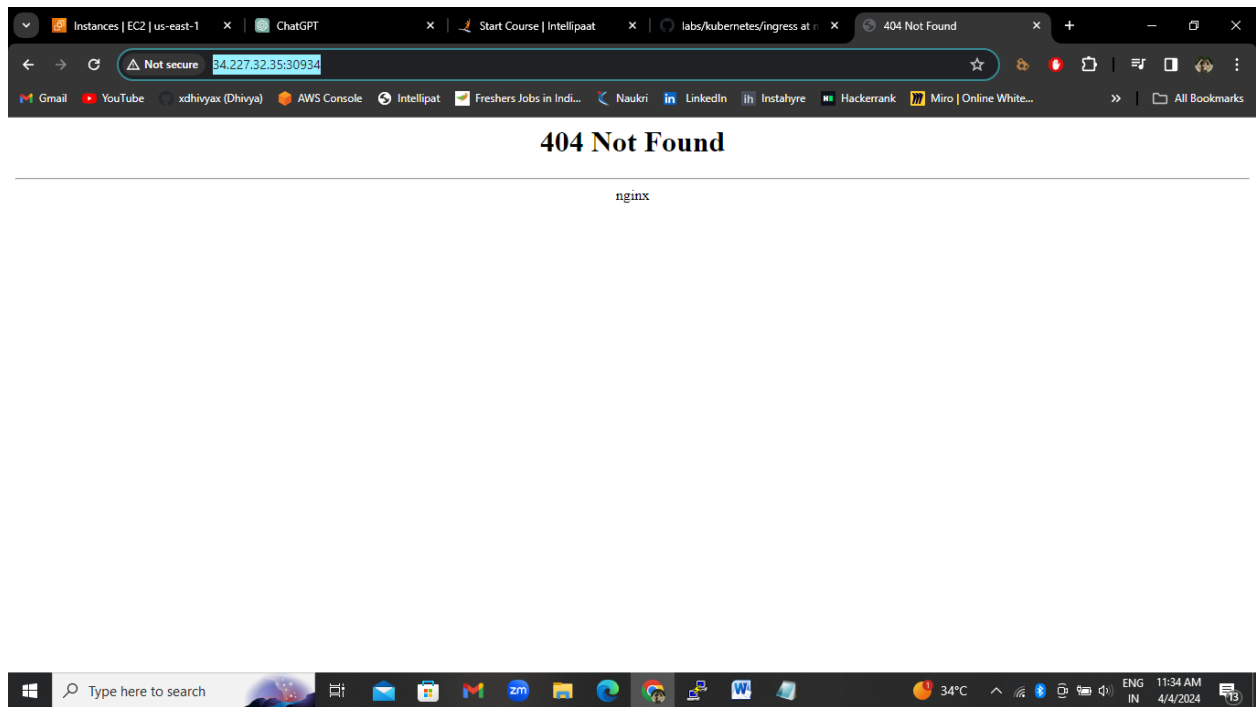
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/> masternode	i-0d82dec701320537a	Running	t2.small	Initializing	View alarms +	us-east-1b
<input type="checkbox"/> workernode1	i-0fd4bb5782d6e9...	Running	t2.small	Initializing	View alarms +	us-east-1b
<input type="checkbox"/> workernode2	i-0c610c4348233ad...	Running	t2.small	Initializing	View alarms +	us-east-1b

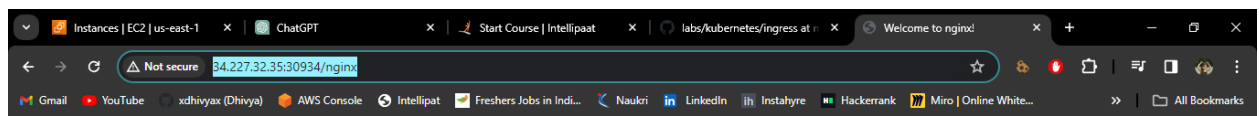
Instance: i-0d82dec701320537a (masternode)

Details | Status and alarms New | Monitoring | Security | Networking | Storage | Tags

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0d82dec701320537a (masternode)	84.227.32.35 open address	172.31.88.113
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-34-227-32-35.compute-1.amazonaws.com open address





Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

