EXPERIMENT 8

AIM: Working with Kubernetes (Single Node Cluster)

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```
C:\Users\anmol>cd k8s

C:\Users\anmol\k8s>dir
 Volume in drive C is Windows
 Volume Serial Number is 2E31-173E

 Directory of C:\Users\anmol\k8s

28-09-2022  12:22    <DIR>          .
28-09-2022  12:22    <DIR>          ..
28-09-2022  11:46               292 deployment.yml
28-09-2022  11:46               151 pod.yml
28-09-2022  11:46               257 replicaset.yml
28-09-2022  11:46               174 service.yml
               4 File(s)            874 bytes
               2 Dir(s)  248,992,198,656 bytes free
```

```
C:\Users\anmol\k8s>kubectl apply -f pod.yml
pod/my-nginx-pod1 unchanged

C:\Users\anmol\k8s>kubectl apply -f deployment.yml
deployment.apps/apache-deployment created

C:\Users\anmol\k8s>kubectl apply -f replicaset.yml
replicaset.apps/nginx-rs created

C:\Users\anmol\k8s>kubectl apply -f service.yml
service/my-nginx-service1 created
```

```
C:\Users\anmol\k8s>kubectl get all
NAME                                        READY   STATUS    RESTARTS        AGE
pod/apache-deployment-8f458dc5b-7xtzm       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-8jjqn       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-8m4p6       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-92zzf       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-bwxgb       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-ft799       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-ll4jv       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-lnlcs       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-lwjdv       1/1     Running   0               74s
pod/apache-deployment-8f458dc5b-tpn6n       1/1     Running   0               74s
pod/my-nginx-pod1                           1/1     Running   1 (3m28s ago)   4h12m
pod/nginx-rs-kt5gv                          1/1     Running   0               56s
pod/nginx-rs-lkj65                          1/1     Running   0               56s
pod/nginx-rs-lvp4z                          1/1     Running   0               56s
pod/nginx-rs-xjzqq                          1/1     Running   0               56s

NAME                       TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
service/kubernetes         ClusterIP   10.96.0.1        <none>        443/TCP        5h6m
service/my-nginx-service1  NodePort    10.109.171.104   <none>        80:30005/TCP   39s

NAME                               READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/apache-deployment  10/10   10           10          74s

NAME                                         DESIRED   CURRENT   READY   AGE
replicaset.apps/apache-deployment-8f458dc5b  10        10        10      74s
replicaset.apps/nginx-rs                     5         5         5       56s
```

```
C:\Users\anmol\k8s>kubectl delete -f pod.yml
pod "my-nginx-pod1" deleted

C:\Users\anmol\k8s>kubectl delete -f replicaset.yml
replicaset.apps "nginx-rs" deleted

C:\Users\anmol\k8s>kubectl delete -f service.yml
service "my-nginx-service1" deleted

C:\Users\anmol\k8s>kubectl delete -f deployment.yml
deployment.apps "apache-deployment" deleted
```

```
C:\Users\anmol\k8s>kubectl get all
NAME                                     READY   STATUS        RESTARTS   AGE
pod/apache-deployment-8f458dc5b-7xtzm    1/1     Terminating   0          3m3s
pod/apache-deployment-8f458dc5b-8jjqn    1/1     Terminating   0          3m3s
pod/apache-deployment-8f458dc5b-bwxgb    1/1     Terminating   0          3m3s
pod/apache-deployment-8f458dc5b-ll4jv    1/1     Terminating   0          3m3s
pod/apache-deployment-8f458dc5b-lnlcs    1/1     Terminating   0          3m3s

NAME                 TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP   5h8m
```