Application Containerization and

Orchestration Lab

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Experiment 8

Aim: -   Working with Kubernetes

```
vishalthakur@vishals-MacBook-Air Exp8 % ls
EXPERIMENT 8 (Kubernetes Single Node Cluster).pdf        replicaset.yml
deployment.yml                                           service.yml
pod.yml
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl apply -f pod.yml
pod/my-nginx-pod1 created
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl apply -f service.yml
service/my-nginx-service1 created
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl apply -f replicaset.yml
replicaset.apps/nginx-rs created
vishalthakur@vishals-MacBook-Air Exp8 % kubectl apply -f deployment.yml
deployment.apps/apache-deployment created
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl get all
NAME                                       READY    STATUS             RESTARTS    AGE
pod/apache-deployment-8f458dc5b-8svjv      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-9ww77      1/1      Running            0           28s
pod/apache-deployment-8f458dc5b-bf76w      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-cs6w7      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-fvswl      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-hrspw      1/1      Running            0           28s
pod/apache-deployment-8f458dc5b-j9n2w      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-kxrsv      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-mxdcl      0/1      ContainerCreating  0           28s
pod/apache-deployment-8f458dc5b-r5r5b      0/1      ContainerCreating  0           28s
pod/my-nginx-pod1                          1/1      Running            0           116s
pod/nginx-rs-g27pn                         1/1      Running            0           41s
pod/nginx-rs-hddmq                         1/1      Running            0           41s
pod/nginx-rs-pm7h9                         1/1      Running            0           41s
pod/nginx-rs-rf76g                         1/1      Running            0           41s

NAME                        TYPE        CLUSTER-IP       EXTERNAL-IP    PORT(S)         AGE
service/kubernetes          ClusterIP   10.96.0.1        <none>         443/TCP         36d
service/my-nginx-service1   NodePort    10.108.172.30    <none>         80:30005/TCP    72s

NAME                                READY    UP-TO-DATE    AVAILABLE    AGE
deployment.apps/apache-deployment   2/10     10            2            28s

NAME                                           DESIRED    CURRENT    READY    AGE
replicaset.apps/apache-deployment-8f458dc5b    10         10         2        28s
replicaset.apps/nginx-rs                       5          5          5        41s
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl delete -f pod.yml
pod "my-nginx-pod1" deleted
vishalthakur@vishals-MacBook-Air Exp8 % kubectl delete -f service.yml
service "my-nginx-service1" deleted
vishalthakur@vishals-MacBook-Air Exp8 % kubectl delete -f replicaset.yml
replicaset.apps "nginx-rs" deleted
vishalthakur@vishals-MacBook-Air Exp8 % kubectl delete -f deployment.yml
deployment.apps "apache-deployment" deleted
vishalthakur@vishals-MacBook-Air Exp8 %
```

```
vishalthakur@vishals-MacBook-Air Exp8 % kubectl get all
NAME                 TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
service/kubernetes   ClusterIP   10.96.0.1     <none>         443/TCP    36d
vishalthakur@vishals-MacBook-Air Exp8 %
```