

KUBERNETES ASSIGNMENT 2

Exercise 1: Create a Pod using a YAML Manifest

Step 1: Create a YAML file (nginx-pod.yaml):

Step 2: Apply the YAML file:

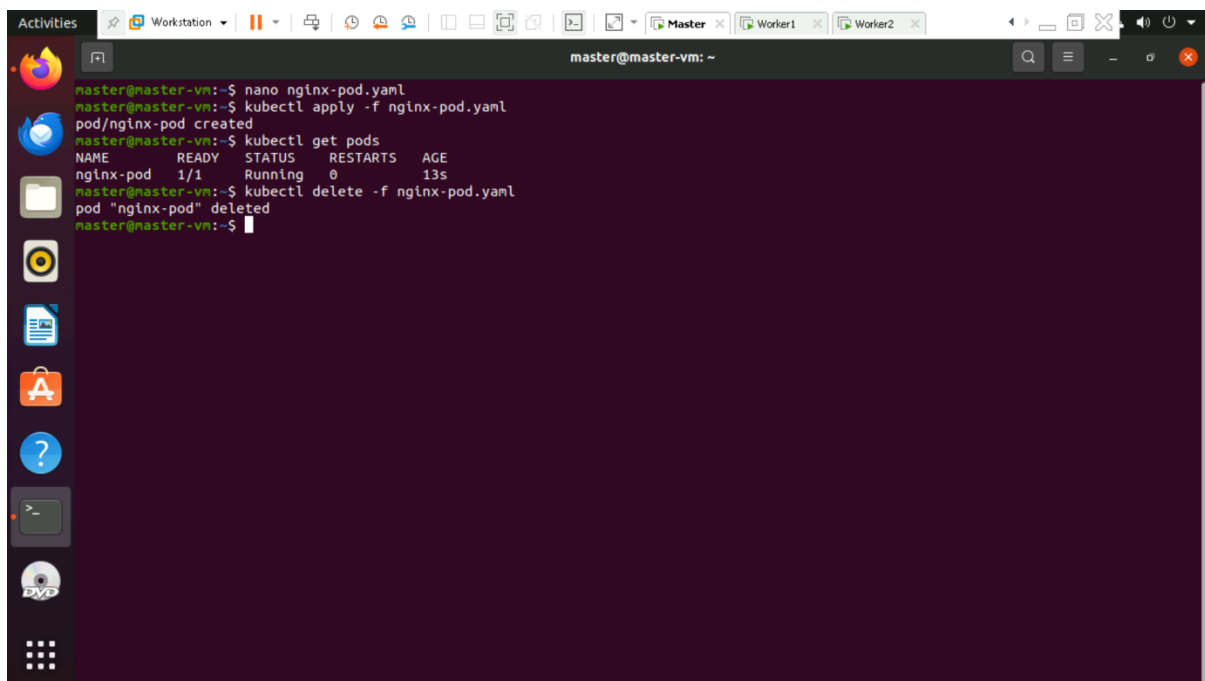
```
kubectl apply -f nginx-pod.yaml
```

Step 3: Check if the pod is running:

```
kubectl get pods
```

Step 4: Delete the pod using YAML:

```
kubectl delete -f nginx-pod.yaml
```

A screenshot of a terminal window titled 'master@master-vm: ~'. The terminal shows the following commands and output:

```
master@master-vm:~$ nano nginx-pod.yaml
master@master-vm:~$ kubectl apply -f nginx-pod.yaml
pod/nginx-pod created
master@master-vm:~$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
nginx-pod  1/1     Running   0           13s
master@master-vm:~$ kubectl delete -f nginx-pod.yaml
pod "nginx-pod" deleted
master@master-vm:~$
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for various applications like a file manager, web browser, and terminal. The top of the window shows a 'Workstation' menu and several open tabs labeled 'Master', 'Worker1', and 'Worker2'.

Exercise 2: Create and Use a ConfigMap

Step 1: Create a ConfigMap:

```
kubectl create configmap app-config --from-literal=APP_ENV=production
```

Step 2: Verify ConfigMap:

```
kubectl get configmaps app-config -o yaml
```

Step 3: Create a pod that uses the ConfigMap (nginx-config-pod.yaml):

Step 4: Deploy the pod:

```
kubectl apply -f nginx-config-pod.yaml
```

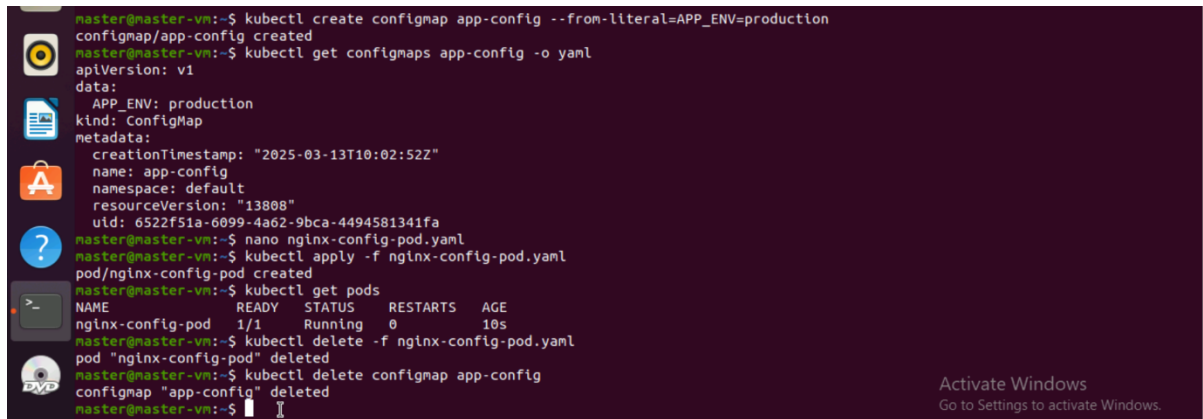
Step 5: Check if the pod is running:

```
kubectl get pods
```

Step 6: Delete the pod and ConfigMap:

```
kubectl delete -f nginx-config-pod.yaml
```

```
kubectl delete configmap app-config
```



```
master@master-vn:~$ kubectl create configmap app-config --from-literal=APP_ENV=production
configmap/app-config created
master@master-vn:~$ kubectl get configmaps app-config -o yaml
apiVersion: v1
data:
  APP_ENV: production
kind: ConfigMap
metadata:
  creationTimestamp: "2025-03-13T10:02:52Z"
  name: app-config
  namespace: default
  resourceVersion: "13808"
  uid: 6522f51a-6099-4a62-9bca-4494581341fa
master@master-vn:~$ nano nginx-config-pod.yaml
master@master-vn:~$ kubectl apply -f nginx-config-pod.yaml
pod/nginx-config-pod created
master@master-vn:~$ kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
nginx-config-pod    1/1     Running   0           10s
master@master-vn:~$ kubectl delete -f nginx-config-pod.yaml
pod "nginx-config-pod" deleted
master@master-vn:~$ kubectl delete configmap app-config
configmap "app-config" deleted
master@master-vn:~$
```

Activate Windows
Go to Settings to activate Windows.