

Kubernetes Assignment-02

Exercise 3: Create a Pod using a YAML Manifest

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

Step 2: Apply the YAML file

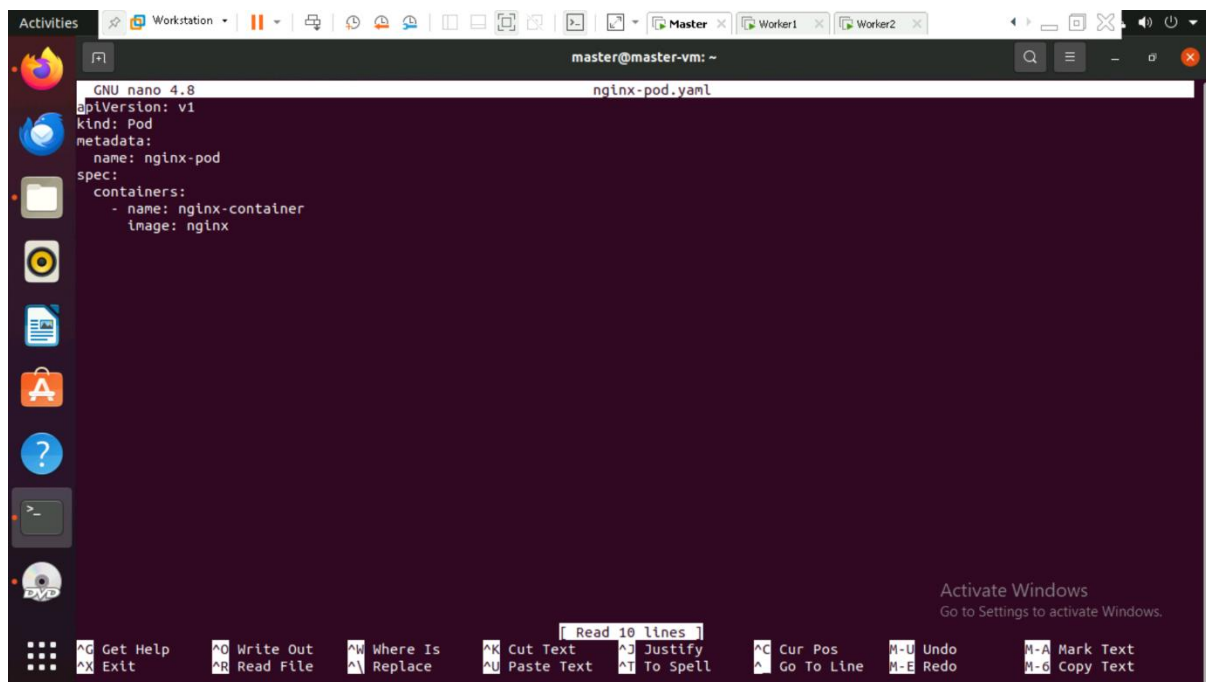
- `kubectl apply -f nginx-pod.yaml`

Step 3: Check if the pod is running

- `kubectl get pods`

Step 4: Delete the pod using YAML

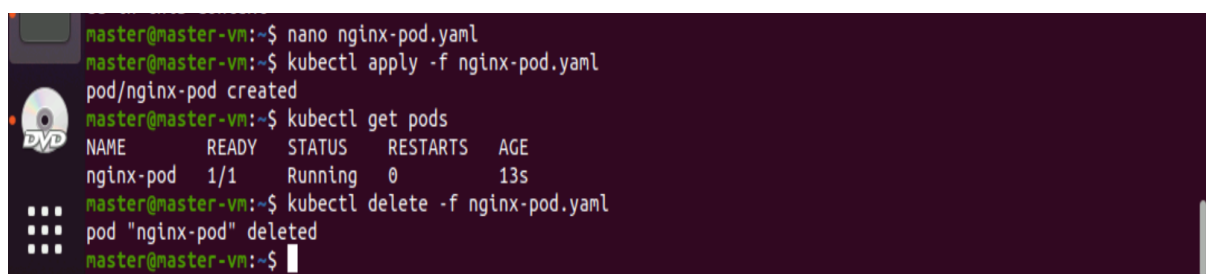
- `kubectl delete -f nginx-pod.yaml`



The screenshot shows a terminal window titled 'master@master-vm: ~' with a dark purple background. The terminal is running the nano text editor to create a file named 'nginx-pod.yaml'. The content of the file is as follows:

```
apiVersion: v1
kind: Pod
metadata:
  name: nginx-pod
spec:
  containers:
  - name: nginx-container
    image: nginx
```

The terminal window includes a sidebar on the left with various application icons and a bottom status bar with keyboard shortcuts like 'Get Help', 'Write Out', 'Where Is', 'Cut Text', 'Paste Text', 'Cur Pos', 'Go To Line', 'Undo', 'Redo', 'Mark Text', and 'Copy Text'. An 'Activate Windows' watermark is visible in the bottom right corner.



The screenshot shows a terminal window titled 'master@master-vm: ~' with a dark purple background. The terminal shows the following commands and their outputs:

```
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:~$
```

Exercise 4: 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
```

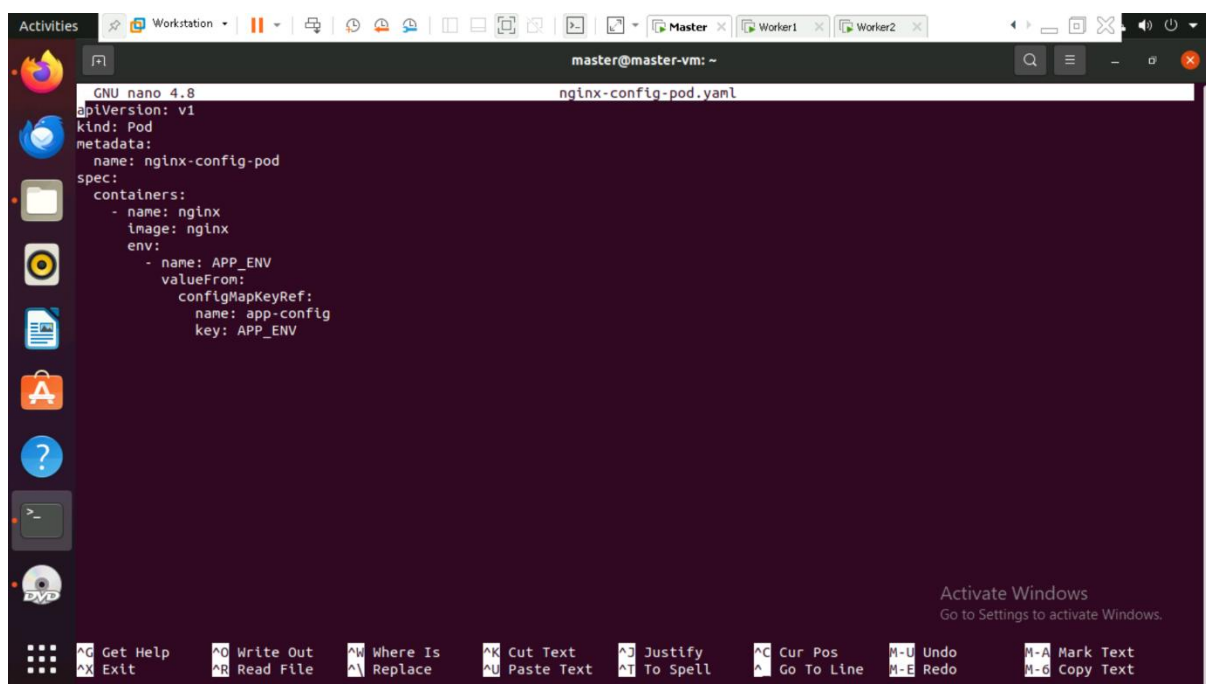
Step 5: Check if the pod is running:

```
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: "2025-03-13T09:58:01Z"
  name: app-config
  namespace: default
  resourceVersion: "13759"
  uid: a11712f9-11a2-425b-8745-f4ddb6710fd2
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           17s
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.