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:
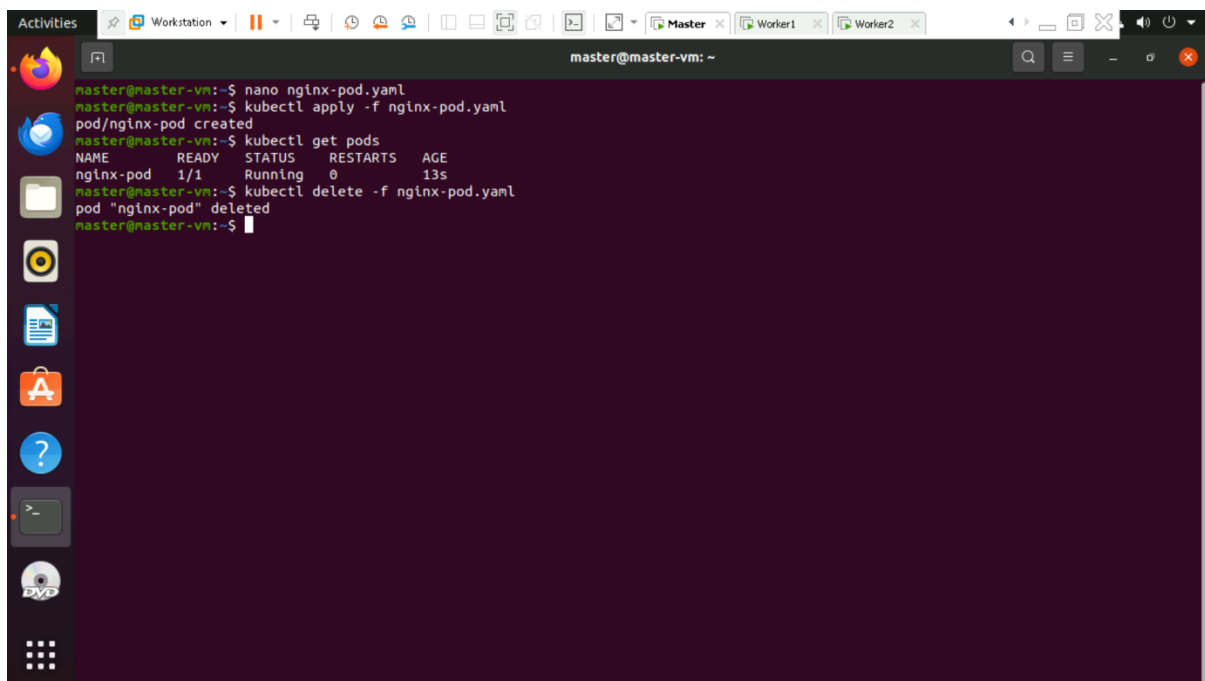
    kubectl apply -f nginx-pod.yaml

Step 3: Check if the pod is running:

    kubectl get pods

Step 4: Delete the pod using YAML:

kubectl delete -f nginx-pod.yaml

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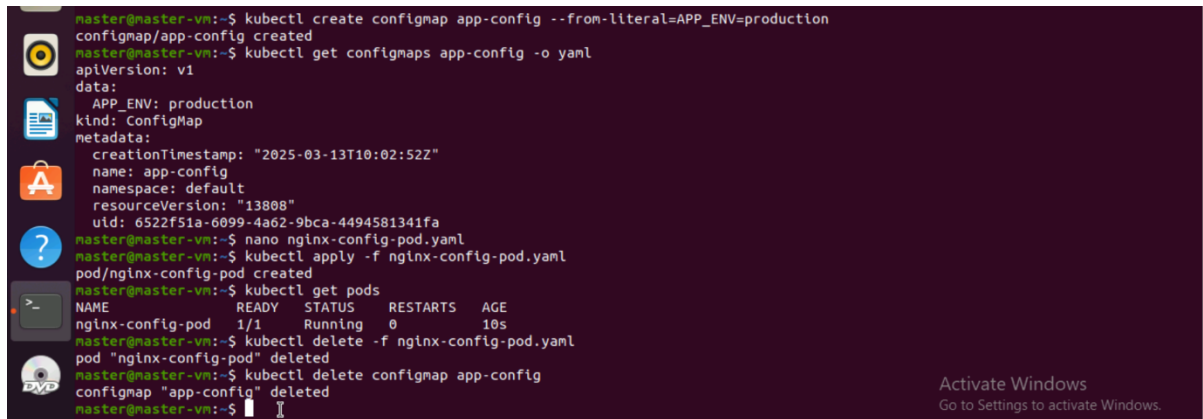
    kubectl apply -f nginx-config-pod.yaml

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

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master@master-vm:~$ kubectl create configmap app-config --from-literal=APP_ENV=production
configmap/app-config created
master@master-vm:~$ 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-vm:~$ nano nginx-config-pod.yaml
master@master-vm:~$ kubectl apply -f nginx-config-pod.yaml
pod/nginx-config-pod created
master@master-vm:~$ kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
nginx-config-pod    1/1     Running   0          10s
master@master-vm:~$ kubectl delete -f nginx-config-pod.yaml
pod "nginx-config-pod" deleted
master@master-vm:~$ kubectl delete configmap app-config
configmap "app-config" deleted
master@master-vm:~$
```