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KUBERNETES ASSIGNMENT -2

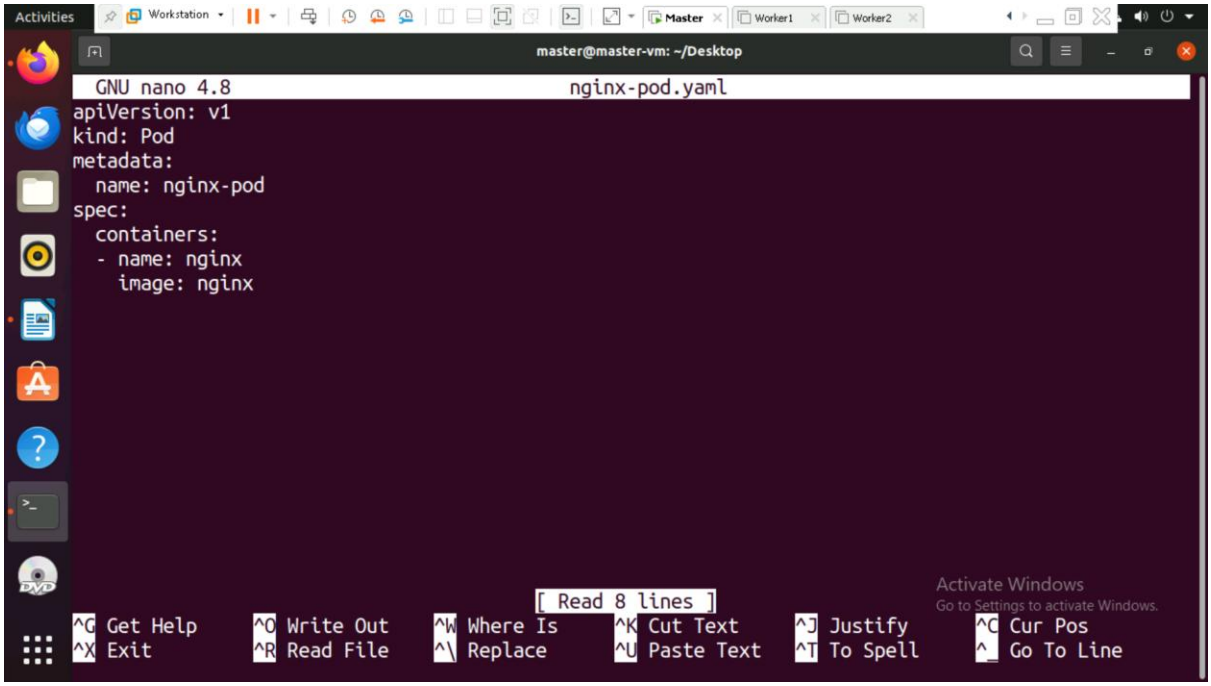
Exercise 3: Create a Pod using a YAML Manifest

Objective: Define and deploy a pod using YAML.

Steps & Commands:

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

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



2. **Apply the YAML file:**

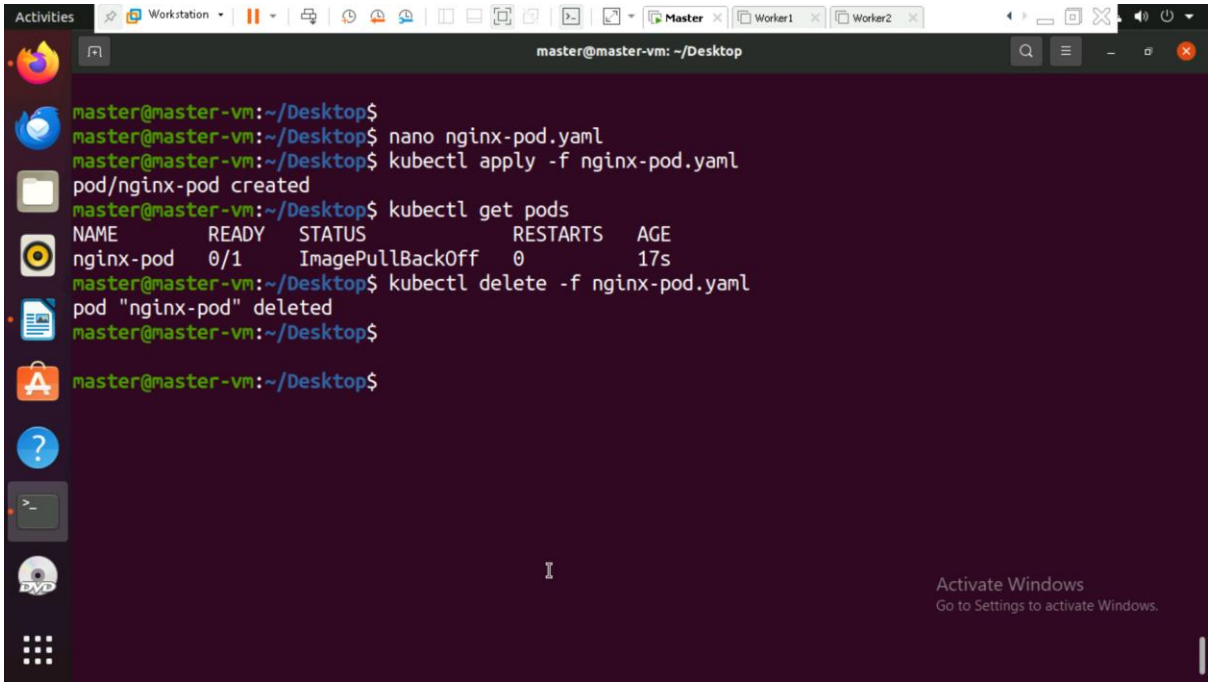
```
kubectl apply -f nginx-pod.yaml
```

3. **Check if the pod is running:**

```
kubectl get pods
```

4. **Delete the pod using YAML:**

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



Exercise 4: Create and Use a ConfigMap

Objective: Store environment variables in a ConfigMap and use it in a pod.

Steps & Commands:

1. **Create a ConfigMap:**

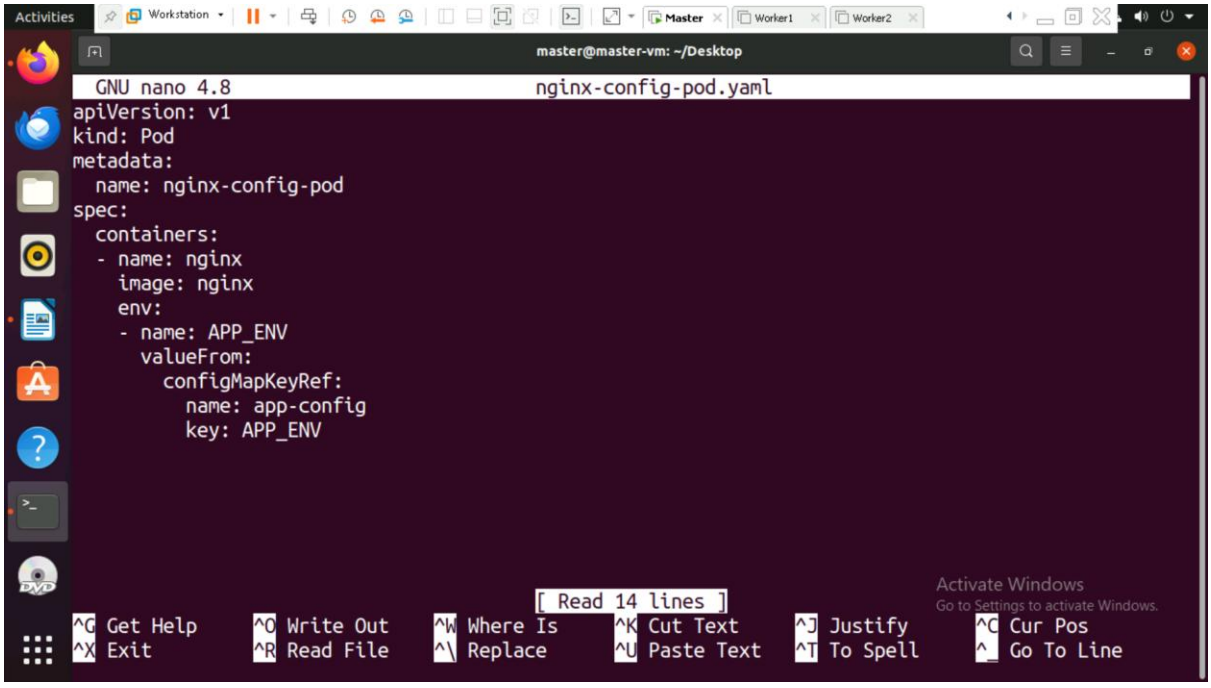
```
kubectl create configmap app-config --from-literal=APP_ENV=production
```

2. **Verify ConfigMap:**

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

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

```
apiVersion: v1
kind: Pod
metadata:
  name: nginx-config-pod
spec:
  containers:
  - name: nginx
    image: nginx
    env:
    - name: APP_ENV
      valueFrom:
        configMapKeyRef:
          name: app-config
          key: APP_ENV
```



4. **Deploy the pod:**

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

5. **Check if the pod is running:**

```
kubectl get pods
```

6. **Delete the pod and ConfigMap:**

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