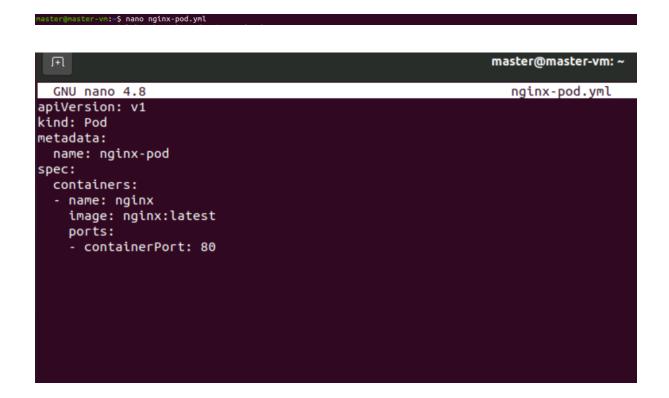
ASSIGNMENT 2

Exercise 3: Create a Pod using a YAML Manifest.

Objective: Define and deploy a pod using YAML.

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



Step 2: Apply the YAML file:

Step 3: Check if the pod is running:

Step 4: Delete the pod using YAML:

Exercise 4: Create and Use a ConfigMap

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

Step 1: Create a ConfigMap:

```
master@master-vm:-$ kubectl create configmap app-config --from-literal=APP_ENV=production configmap/app-config created
```

Step 2: Verify ConfigMap:

```
master@master-vm:~$ kubectl get configmaps app-config -o yaml
aptVersion: v1
data:
APP_ENV: production
kind: ConfigMap
metadata:
creationTimestamp: "2025-03-13T10:13:45Z"
name: app-config
namespace: default
resourceVersion: "10226"
uid: 8cea966a-26cb-4b9d-929b-8a204346022e
```

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

```
master@master-vm:~$ nano nginx-config-pod.yaml
  GNU nano 4.8
                                                              nginx-config-po
apiVersion: v1
kind: Pod
metadata:
  name: nginx-config-pod
spec:
 containers:
 - name: nginx
   image: nginx
   - name: APP_ENV
     valueFrom:
      configMapKeyRef:
         name: app-config
         key: APP_ENV
```

Step 4: Deploy the pod:

```
master@master-vm:~$ kubectl apply -f nginx-config-pod.yaml
pod/nginx-config-pod created
```

Step 5: Check if the pod is running:

```
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 0/1 ContainerCreating 0 4s
master@master-vm:-$ kubectl get pods

NAME READY STATUS RESTARTS AGE
nginx-config-pod 1/1 Running 0 18s
```

Step 6: Delete the pod and ConfigMap: