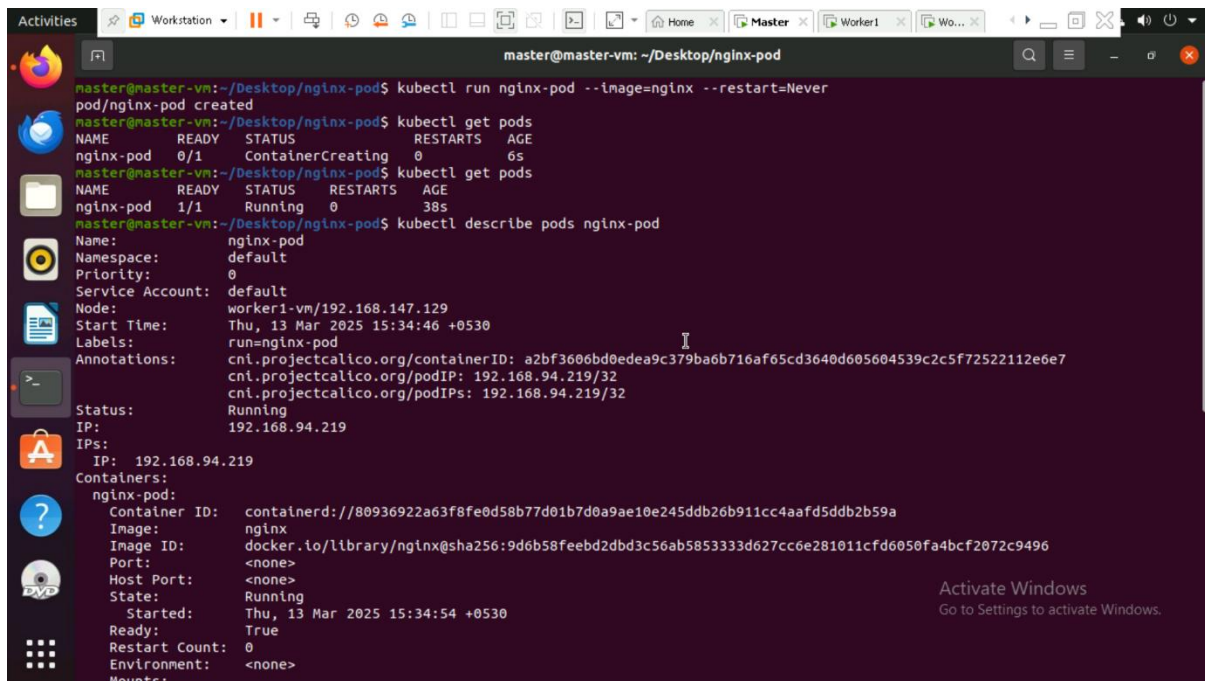


Q. Deploy an Nginx Pod



The screenshot shows a terminal window titled "master@master-vm: ~/Desktop/nginx-pod". The user has executed the following commands and received the following output:

```
master@master-vm:~/Desktop/nginx-pod$ kubectl run nginx-pod --image=nginx --restart=Never
pod/nginx-pod created
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
nginx-pod 0/1     ContainerCreating   0          6s
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
nginx-pod 1/1     Running   0          38s
master@master-vm:~/Desktop/nginx-pod$ kubectl describe pods nginx-pod
Name:         nginx-pod
Namespace:    default
Priority:      0
Service Account: default
Node:         worker1-vm/192.168.147.129
Start Time:   Thu, 13 Mar 2025 15:34:46 +0530
Labels:       run=nginx-pod
Annotations:  cnl.projectcalico.org/containerID: a2bf3606bd0edea9c379ba6b716af65cd3640d605604539c2c5f72522112e6e7
              cnl.projectcalico.org/podIP: 192.168.94.219/32
              cnl.projectcalico.org/podIPs: 192.168.94.219/32
Status:       Running
IP:           192.168.94.219
IPs:          192.168.94.219
Containers:
  nginx-pod:
    Container ID:  containerd://80936922a63f8fe0d58b77d01b7d0a9ae10e245ddb26b911cc4aafd5ddb2b59a
    Image:         nginx
    Image ID:      docker.io/library/nginx@sha256:9d6b58febd2dbd3c56ab585333d627cc6e281011cfd6050fa4bcf2072c9496
    Port:          <none>
    Host Port:     <none>
    State:         Running
      Started:     Thu, 13 Mar 2025 15:34:54 +0530
    Ready:         True
    Restart Count: 0
    Environment:   <none>
    Mounts:         <none>
```

An "Activate Windows" watermark is visible in the bottom right corner of the terminal window.

Q. Create an Nginx Deployment and scale it

```
master@master-vm: ~/Desktop/nginx-pod
master@master-vm:~/Desktop/nginx-pod$ kubectl create deployment nginx-deployment --image=nginx
deployment.apps/nginx-deployment created
master@master-vm:~/Desktop/nginx-pod$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment 0/1     1            0           7s
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-6d6565499c-9vz2r  1/1     Running   0          16s
master@master-vm:~/Desktop/nginx-pod$ kubectl scale deployment nginx-deployment --replicas=3
deployment.apps/nginx-deployment scaled
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-6d6565499c-5b898  0/1     ContainerCreating   0          6s
nginx-deployment-6d6565499c-9vz2r  1/1     Running             0          2m32s
nginx-deployment-6d6565499c-bq4mx  0/1     ContainerCreating   0          6s
master@master-vm:~/Desktop/nginx-pod$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment 2/3     3            2           2m40s
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods -o wide
NAME          READY   STATUS    RESTARTS   AGE   IP              NODE          NOMINATED NODE   READ
nginx-deployment-6d6565499c-5b898  1/1     Running   0          41s   192.168.94.221  worker1-vm    <none>           <non
e>
nginx-deployment-6d6565499c-9vz2r  1/1     Running   0          3m7s  192.168.94.220  worker1-vm    <none>           <non
e>
nginx-deployment-6d6565499c-bq4mx  0/1     ImagePullBackOff  0          41s   192.168.114.89  worker2-vm    <none>           <non
e>
master@master-vm:~/Desktop/nginx-pod$
```

```
master@master-vm: ~/Desktop/nginx-pod
QoS Class:           BestEffort
Node-Selectors:       <none>
Tolerations:          node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                     node.kubernetes.io/unreachable:NoExecute op=Exists for 300s

Events:
Type    Reason      Age    From      Message
----    -
Normal  Scheduled   3m5s   default-scheduler  Successfully assigned default/nginx-deployment-6d6565499c-bq4mx to wo
rker2-vm
Warning  Failed      2m50s   kubelet      Failed to pull image "nginx": failed to pull and unpack image "docke
r.io/library/nginx:latest": failed to resolve reference "docker.io/library/nginx:latest": failed to authorize: failed to fetch oauth
token: Post "https://auth.docker.io/token": net/http: TLS handshake timeout
Warning  Failed      2m50s   kubelet      Error: ErrImagePull
Normal  BackOff     2m49s   kubelet      Back-off pulling image "nginx"
Warning  Failed      2m49s   kubelet      Error: ImagePullBackOff
Normal  Pulling     2m36s (x2 over 3m4s)  kubelet      Pulling image "nginx"
Normal  Pulled      69s     kubelet      Successfully pulled image "nginx" in 1m26.867s (1m26.867s including w
aiting)
Normal  Created     69s     kubelet      Created container nginx
Normal  Started     68s     kubelet      Started container nginx
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-6d6565499c-5b898  1/1     Running   0          3m28s
nginx-deployment-6d6565499c-9vz2r  1/1     Running   0          5m54s
nginx-deployment-6d6565499c-bq4mx  1/1     Running   0          3m28s
master@master-vm:~/Desktop/nginx-pod$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment 3/3     3            3           6m1s
master@master-vm:~/Desktop/nginx-pod$ kubectl get pods -o wide
NAME          READY   STATUS    RESTARTS   AGE   IP              NODE          NOMINATED NODE   READINESS GA
TES
nginx-deployment-6d6565499c-5b898  1/1     Running   0          3m41s  192.168.94.221  worker1-vm    <none>           <none>
nginx-deployment-6d6565499c-9vz2r  1/1     Running   0          6m7s   192.168.94.220  worker1-vm    <none>           <none>
nginx-deployment-6d6565499c-bq4mx  1/1     Running   0          3m41s  192.168.114.89  worker2-vm    <none>           <none>
master@master-vm:~/Desktop/nginx-pod$
```