

Kubernetes

1)Deploy a Nginx pod

```
root@master-vm:/home/master/newtest# kubectl run nginx-pod --image=nginx --restart=Never
pod/nginx-pod created
root@master-vm:/home/master/newtest# kubectl get pods
```

| NAME | READY | STATUS | RESTARTS | AGE |
|-----------------------------------|-------|---------|----------|------|
| nginx-deployment-7854ff8877-mkkwb | 1/1 | Running | 0 | 117s |
| nginx-deployment-7854ff8877-v4tkc | 1/1 | Running | 0 | 117s |
| nginx-deployment-7854ff8877-zgdtm | 1/1 | Running | 0 | 117s |
| nginx-pod | 1/1 | Running | 0 | 12s |

2)Now Forward the port to access Nginx

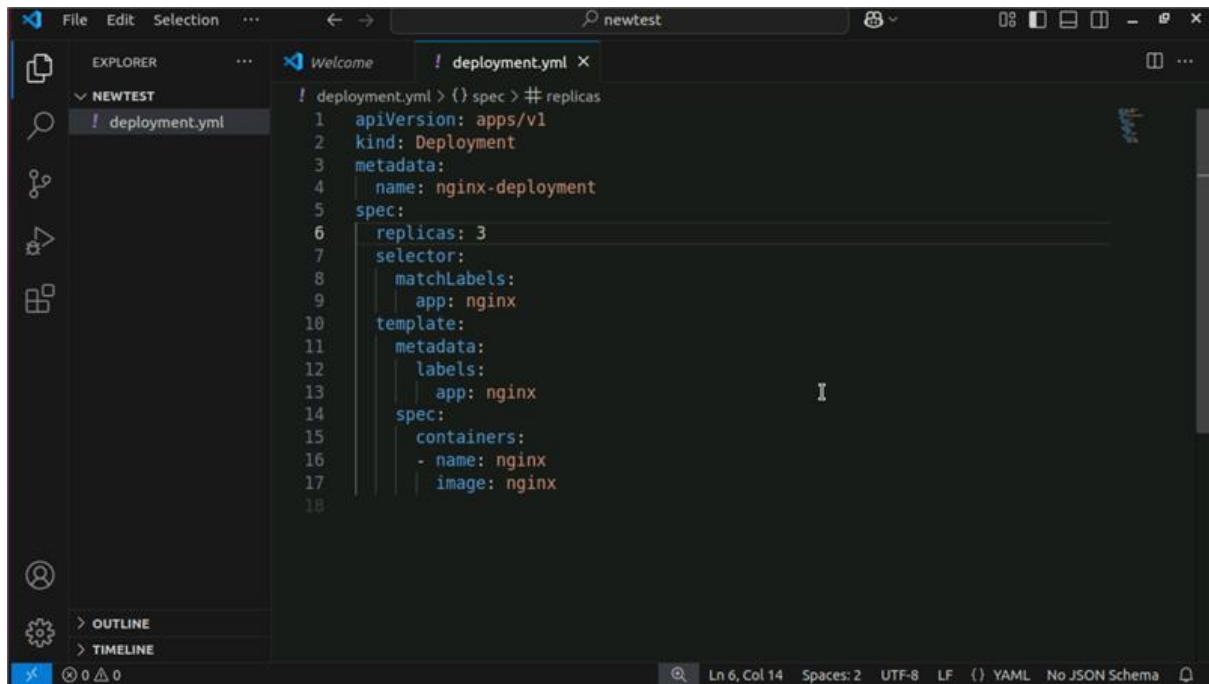
```
root@master-vm:/home/master/newtest# kubectl port-forward pod/nginx-pod 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
```

3)So the port is running successfully as we can see nginx default page



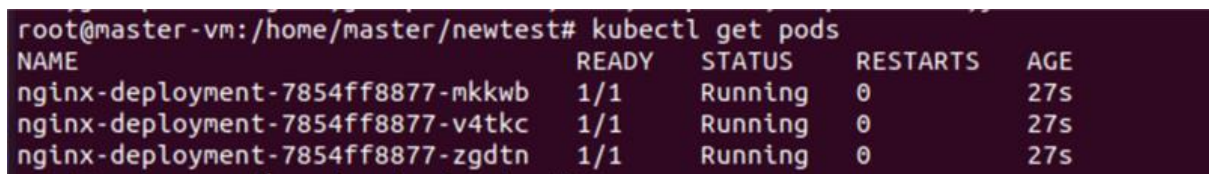
Scale the Deployment

4) create deployment.yml file with replicas



The screenshot shows a Visual Studio Code editor window with a file named `deployment.yml` open. The file contains a Kubernetes Deployment manifest for an nginx application, configured with 3 replicas. The Explorer sidebar on the left shows the project structure with a folder named `NEWTEST` containing the `deployment.yml` file. The status bar at the bottom indicates the file is in YAML format.

```
! deployment.yml > {} spec > # replicas
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: nginx-deployment
5  spec:
6    replicas: 3
7    selector:
8      matchLabels:
9        app: nginx
10   template:
11     metadata:
12       labels:
13         app: nginx
14     spec:
15       containers:
16       - name: nginx
17         image: nginx
18
```



The screenshot shows a terminal window where the command `kubectl get pods` has been executed. The output displays three pods in a 'Running' state, each with 1/1 ready containers and 0 restarts. The pods are named `nginx-deployment-7854ff8877-mkkwb`, `nginx-deployment-7854ff8877-v4tkc`, and `nginx-deployment-7854ff8877-zgdtu`.

```
root@master-vm:/home/master/newtest# kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-7854ff8877-mkkwb   1/1     Running   0           27s
nginx-deployment-7854ff8877-v4tkc   1/1     Running   0           27s
nginx-deployment-7854ff8877-zgdtu   1/1     Running   0           27s
```