Deploying Nginx Container

Let's now create a deployment that will help us to create pods. The command for that would be:

```
kubectl create deployment  demo-nginx --image=nginx --replicas=2 --port=80
```

The above command uses kubectl to create the **deployment** with the name **demo-nginx** and pulls image **nginx** from the DockerHub.Also, it creates two **replicas** for high availability and exposes port 8080.

```
[root@ip-172-31-92-254 ~]# kubectl create deployment  demo-nginx --
image=nginx --replicas=2 --port=80
deployment.apps/demo-nginx created
```

The above output also verifies the successful creation of our deployment by using the command "**kubectl get deployments**".

We can also verify the creation of two replicaset in the background:

```
[root@ip-172-31-92-254 ~]# kubectl get replicaset
NAME                     DESIRED   CURRENT   READY   AGE
demo-nginx-699bd94686   2         2         2       3m7s
```

Also, we can check our newly created two pods :

```
[root@ip-10-0-0-6 ec2-user]# kubectl get pods
NAME                          READY   STATUS    RESTARTS   AGE
demo-nginx-5c97459668-mwspm   1/1     Running   0          5m1s
demo-nginx-5c97459668-njb4g   1/1     Running   0          5m1s
[root@ip-10-0-0-6 ec2-user]#
```

Let's now expose this application to the external network by using the command:

```
kubectl expose deployment demo-nginx --port=80 --type=LoadBalancer

[root@ip-172-31-92-254 ~]# kubectl expose deployment demo-nginx --port=80
--type=LoadBalancer
service/demo-nginx exposed
```

Finally, let's verify all our resources created so far in our cluster:

```
[root@ip-10-0-0-6 ec2-user]# kubectl get svc
NAME         TYPE           CLUSTER-IP      EXTERNAL-IP                                                    PORT(S)        AGE
demo-nginx   LoadBalancer   10.100.130.255  ad2efa0a130c44efdad9e91b44689373-30243379.us-east-1.elb.amazonaws.com   80:31879/TCP   3m
kubernetes   ClusterIP      10.100.0.1      <none>                                                         443/TCP        26m
[root@ip-10-0-0-6 ec2-user]#
```

We can verify the Nginx default page from our browser also: