KUBERNETES INSTALLATION

DevOps Certification Training

support@intellipaat.com
+91-7022374614
US: 1-800-216-8930(Toll Free)

INSTALLING KUBERNETES

Steps for Both Master and Slave

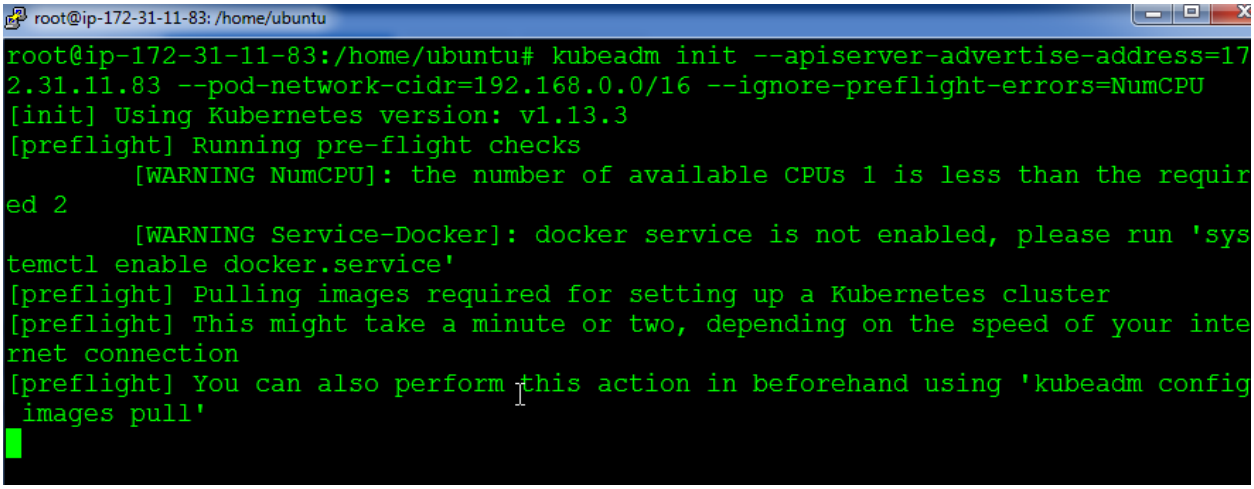
Step 1: Run the following commands for installing kubeadm as root

```
$ apt-get update

$ apt-get install docker.io

$ apt-get update && apt-get install -y apt-transport-https curl

$ curl -s https://packages.cloud.google.com/apt/doc/apt-key.gpg |
apt-key add -

$ cat <<EOF >/etc/apt/sources.list.d/kubernetes.list

deb https://apt.kubernetes.io/ kubernetes-xenial main

EOF

$ apt-get update

$ apt-get install -y kubelet kubeadm kubectl
```

Steps for Kubernetes Master

Step 1: Initialize kubeadm using the following command:

```
$ kubeadm init –apiserver-advertise-address=<ip-address-of-master> --pod-network-cidr=192.168.0.0/16 --ignore-preflight-errors=NumCPU
```



Step 2: In the output of the previous command, you will get a command, take this command and run it in the slave

```
Your Kubernetes master has initialized successfully!

To start using your cluster, you need to run the following as a regular user:

  mkdir -p $HOME/.kube
  sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
  sudo chown $(id -u):$(id -g) $HOME/.kube/config

You should now deploy a pod network to the cluster.
Run "kubectl apply -f [podnetwork].yaml" with one of the options listed at:
  https://kubernetes.io/docs/concepts/cluster-administration/addons/

You can now join any number of machines by running the following on each node
as root:

  kubeadm join 172.31.11.83:6443 --token a63940.44jgu0dr0ky3madf --discovery-tok
en-ca-cert-hash sha256:4fd605b80394d81fdbd02cd71a05441238ded7b78f57cbd7e113d2ce1
0f2d7ad
```

```
This node has joined the cluster:
* Certificate signing request was sent to apiserver and a response was rec
* The Kubelet was informed of the new secure connection details.

Run 'kubectl get nodes' on the master to see this node join the cluster.

root@ip-172-31-6-60:/home/ubuntu#
```

Step 3: On the master, exit to the normal user, and execute the following commands:

```
$  mkdir -p $HOME/.kube

$ sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config

$  sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

Step 4: Next, let's install the network plugin. Execute the following commands:

```
$  kubectl apply -f https://docs.projectcalico.org/v3.3/getting-started/kubernetes/installation/hosted/rbac-kdd.yaml

$ kubectl apply -f https://docs.projectcalico.org/v3.3/getting-started/kubernetes/installation/hosted/kubernetes-datastore/calico-networking/1.7/calico.yaml
```

Step 5: The previous command will take some time to take effect. After 4-5 mins, try the following command, if both the nodes are in the ready state, Installation is successful!

```
$  kubectl get nodes
```