## **To Set up the cluster**

**To install Docker:**

sudo apt-get update –y

sudo apt-get install docker.io

**To Install Kubeadm:**

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

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

cat <<EOF | sudo tee /etc/apt/sources.list.d/kubernetes.list

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

EOF

sudo apt-get update

sudo apt-get install -y kubelet kubeadm kubectl

**To Initialize master:**

kubeadm init --pod-network-cidr=192.168.0.0/16

**To Join Worker nodes:**

Add token which is generated by initialize master:

kubeadm join 172.31.0.164:6443 --token s0eaxr.5md1h8qp889dnc2h \

--discovery-token-ca-cert-hash sha256:45af42b268cdeb48f9cda1f3cafbc36da923340cdbbda71e43d7d26528bd010

**To start using the cluster set the environment variable on the master**

mkdir -p $HOME/.kube

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

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

export KUBECONFIG=$HOME/admin.conf

**To install CNI so that pods can communicate across nodes and also Cluster DNS to start functioning. Apply weave CNI on the master node:**

kubectl apply -f [https://cloud.weave.works/k8s/net?k8s-version=$(kubectl version | base64 | tr -d '\n')](https://cloud.weave.works/k8s/net?k8s-version=$(kubectl%20version%20|%20base64%20|%20tr%20-d%20'\n'))

**Check that pods in kube-system:**

Kubectl get pods –n kube-system