Installation of kubeadm on ubuntu 22.04

Run this command in Master node:

hostnamectl set-hostname Master

exec bash

Run this command in Worker node:

exec bash

Run below commands in both master and worker node:

 # Add Docker's official GPG key:

sudo apt-get update

sudo apt-get install ca-certificates curl

sudo install -m 0755 -d /etc/apt/keyrings

sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc

sudo chmod a+r /etc/apt/keyrings/docker.asc

 # Add the repository to Apt sources:

**echo **

**"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu **

**$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | **

sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

```
sudo apt install -y curl gnupg2 software-properties-common apt-transport-https ca-certificates
```

```
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmour -o /etc/apt/trusted.gpg.d/docker.gpg
```

```
sudo add-apt-repository "deb [arch=amd64]
https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"

sudo apt update
sudo apt install -y containerd.io

containerd config default | sudo tee /etc/containerd/config.toml >/dev/null
2>&1

sudo sed -i 's/SystemdCgroup \= false/SystemdCgroup \= true/g'
/etc/containerd/config.toml

sudo systemctl restart containerd
sudo systemctl enable containerd


sudo apt-get update

sudo apt-get install -y apt-transport-https ca-certificates curl gpg

curl -fsSL https://pkgs.k8s.io/core:/stable:/v1.29/deb/Release.key | sudo gpg --
dearmor -o /etc/apt/keyrings/kubernetes-apt-keyring.gpg

echo 'deb [signed-by=/etc/apt/keyrings/kubernetes-apt-keyring.gpg]
https://pkgs.k8s.io/core:/stable:/v1.29/deb/ /' | sudo tee
/etc/apt/sources.list.d/kubernetes.list

sudo apt-get update
sudo apt-get install -y kubelet kubeadm kubectl
sudo apt-mark hold kubelet kubeadm kubectl
```

Initialize Kubernetes Cluster with Kubeadm (master node)

Sign out as a root user:

```
Sudo kubeadm init

After executing above command this will generate kubeadm join token command
save that we will use it later.


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

Initialize this command in Worker Node:

```
Execute the command in root user:

Run the command where we have saved the kubeadm join token command:
```

Initialize this command in Master Node:

```
kubectl apply -f https://raw.githubusercontent.com/projectcalico/calico/v3.25.0/manifests/calico.yaml
```

```
kubectl get nodes
```