Step1: On Master Node Only

## Install Docker

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installDocker.sh -P /tmp

sudo chmod 755 /tmp/installDocker.sh

sudo bash /tmp/installDocker.sh

sudo systemctl restart docker.service

## Install CRI-Docker

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installCRIDockerd.sh -P /tmp

sudo chmod 755 /tmp/installCRIDockerd.sh

sudo bash /tmp/installCRIDockerd.sh

sudo systemctl restart cri-docker.service

## Install kubernetes

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installK8S-v1-23.sh -P /tmp

sudo chmod 755 /tmp/installK8S-v1-23.sh

sudo bash /tmp/installK8S-v1-23.sh

# Validate (optional)

docker -v

cri-dockerd --version

kubeadm version -o short

kubelet --version

kubectl version --short --client

## Initialize kubernetes Master Node

sudo kubeadm init --cri-socket unix:///var/run/cri-dockerd.sock --ignore-preflight-errors=all

sudo mkdir -p $HOME/.kube

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

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

## install networking driver -- Weave/flannel/canal/calico etc...

## below installs calico networking driver

kubectl apply -f https://raw.githubusercontent.com/projectcalico/calico/v3.24.1/manifests/calico.yaml

# Validate: kubectl get nodes

Step2: On All Worker Nodes

## Install Docker

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installDocker.sh -P /tmp

sudo chmod 755 /tmp/installDocker.sh

sudo bash /tmp/installDocker.sh

sudo systemctl restart docker.service

## Install CRI-Docker

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installCRIDockerd.sh -P /tmp

sudo chmod 755 /tmp/installCRIDockerd.sh

sudo bash /tmp/installCRIDockerd.sh

sudo systemctl restart cri-docker.service

## Install kuubernetes

sudo wget https://raw.githubusercontent.com/lerndevops/labs/master/scripts/installK8S-v1-23.sh -P /tmp

sudo chmod 755 /tmp/installK8S-v1-23.sh

sudo bash /tmp/installK8S-v1-23.sh

# Validate

11 docker -v

12 cri-dockerd --version

13 kubeadm version -o short

14 kubelet --version

15 kubectl version --short --client

## Run Below on Master Node to get join token

kubeadm token create --print-join-command

copy the kubeadm join token from master & ensure to add --cri-socket unix:///var/run/cri-dockerd.sock as below & then run on worker nodes

Ex: kubeadm join 10.128.15.231:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token mks3y2.v03tyyru0gy12mbt \

--discovery-token-ca-cert-hash sha256:3de23d42c7002be0893339fbe558ee75e14399e11f22e3f0b34351077b7c4b56

kubeadm join 172.31.46.119:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token rm387s.97cq0l2f8vi0cai5 --discovery-token-ca-cert-hash sha256:6bb8d9daa1e06f28ffe8d82de309c0fad938f3f2647d14be89793b046663fe57

kubeadm join 172.31.44.0:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token itapbw.novci4lsav0i5ux6 --discovery-token-ca-cert-hash sha256:c91ff24ef13dd37afff1542d2b5349cfa732492f58a8d4a0f1f65e84286bac58

kubeadm join 172.31.46.162:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token 2cm2od.ooqafcwls0j77u8a --discovery-token-ca-cert-hash sha256:9be6b546ead5021fad8dc1210f8777f754f94096b7752a9ea4e358cf86a5a6a5

kubeadm join 172.31.3.17:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token 1keyby.5mnh4u7r1yy0l736 \

--discovery-token-ca-cert-hash sha256:81d3d5808730be6b688e811c20c24bbf5138ad8bec0f2c1400a8a1328c02193e

kubeadm join 172.31.95.79:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token 4fkuth.jfdi1fd0beykzqt7 --discovery-token-ca-cert-hash sha256:5161a22906df112afcb49a085bbff348cfac020fcc583d75e4a3e663e2f93936

kubeadm join 172.31.39.181:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token ucxbtc.8j9lv32sk6ezrpog --discovery-token-ca-cert-hash sha256:8d5ca1d3bc7dcfe8cf41ec01c7423526e89cd302dfdb0847a364aa9fdfc8e25c

kubeadm join 172.31.47.7:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token rruv5e.qy0jugqn4ah2fap8 --discovery-token-ca-cert-hash sha256:327de1f4bb93c0b23a920d8b87fe1e91f7c659ae9d5aaa4aef71ab58be3db95c