launch 3 ubuntu machines

Step1: On Master Node Only

## Install Docker

sudo wget https://raw.githubusercontent.com/akshu20791/masterlabs/main/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/akshu20791/masterlabs/main/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/akshu20791/masterlabs/main/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/akshu20791/masterlabs/main/installCRIDockerd.sh -P /tmp

sudo chmod 755 /tmp/installCRIDockerd.sh

sudo bash /tmp/installCRIDockerd.sh

sudo systemctl restart cri-docker.service

## Install kubeadm,kubelet,kubectl

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

sudo su

# 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 172.31.84.47:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token xs1ibh.t8dlz2krr3yvbwsw --discovery-token-ca-cert-hash sha256:321c6b001cb39b946d7929df318f801d77b04998e1092467f84b2573ffacb255

kubeadm join 172.31.88.85:6443 --cri-socket unix:///var/run/cri-dockerd.sock --token crnsrm.ewc38drr63ei7ayi --discovery-token-ca-cert-hash sha256:b4f007f3218e21a5001b0e01835e1dd2b681595b716ff8b4ad2088a5d751533e