**Kubernetes**

* Four nodes with docker and kunernetes(kubeadm, kubelet, kubectl installed).
* You can choose your own On-premise or Cloud(AWS, Google Cloud) for servers.

Follow the commands to install.

**Change hostname and hosts:**

$ sudo hostnamectl set-hostname kubernetes-master

**Docker Installation:**

$ sudo apt install docker.io

$ sudo service docker start

$ sudo systemctl enable docker

$ sudo service docker restart

$ sudo gpasswd –a user docker

$ sudo reboot

**Kubernetes:**

**Debian:**

**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**

**apt-mark hold kubelet kubeadm kubectl**

**Centos,RHEL:**

**cat <<EOF > /etc/yum.repos.d/kubernetes.repo**

**[kubernetes]**

**name=Kubernetes**

**baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-x86\_64**

**enabled=1**

**gpgcheck=1**

**repo\_gpgcheck=1**

**gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg**

**exclude=kube\***

**EOF**

***# Set SELinux in permissive mode (effectively disabling it)***

**setenforce 0**

**sed -i 's/^SELINUX=enforcing$/SELINUX=permissive/' /etc/selinux/config**

**yum install -y kubelet kubeadm kubectl --disableexcludes=kubernetes**

**systemctl enable --now kubelet**

**Kubernetes Cluster Setup:**

* **Ssh to master and then execute the command to initialize as k8s master.**

$ sudo kubeadm init --pod-network-cidr=10.244.0.0/16

After executing the command it gives a token for nodes gto join in cluster after flannel network setup .

**Flannel network:**

**To get flannel netwok:**

In master exec the command to get flannel net

$ kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml

The ssh to the nodes and exec the respective token.

To Confirm the Cluster creation:

In master exec the command:

$ kubectl get nodes

You can refer this site too.

**https://linuxconfig.org/how-to-install-kubernetes-on-ubuntu-18-04-bionic-beaver-linux**