

```
sudo su
```

```
apt-get update
```

```
apt-get install apt-transport-https
```

```
apt install docker.io -y
```

```
docker --version
```

```
systemctl start docker
```

```
systemctl enable docker
```

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

```
nano /etc/apt/sources.list.d/kubernetes.list
```

```
deb http://apt.kubernetes.io/ kubernetes-xenial main
```

```
apt-get update
```

```
apt-get install -y kubelet kubeadm kubectl kubernetes-cni
```

BOOTSTRAPPING THE MASTER NODE (IN MASTER)

```
kubeadm init
```

COPY THE COMMAND TO RUN IN NODES & SAVE IN NOTEPAD

```
mkdir -p $HOME/.kube
```

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

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

```
kubectl apply -f https://raw.githubusercontent.com/cor...
```

```
kubectl apply -f https://raw.githubusercontent.com/cor...
```

CONFIGURE WORKER NODES (IN NODES)

COPY LONG CODE PROVIDED MY MASTER IN NODE NOW LIKE CODE GIVEN BELOW

```
e.g-    kubeadm    join    172.31.6.165:6443    --token    kl9fhu.co2n90v3rxtqllrs
--discovery-token-ca-cert-hash
```

```
sha256:b0f8003d23dbf445e0132a53d7aa1922bdef8d553d9eca06e65c928322b3e7c0
```

GO TO MASTER AND RUN THIS COMMAND

```
kubectl get nodes
```

```
sudo su
```

Now install docker

```
sudo apt update && apt -y install docker.io
```

install Kubectl

```
curl          -LO          https://storage.googleapis.com/kubern...          -s
https://storage.googleapis.com/kubern... && chmod +x ./kubectl && sudo mv ./kubectl
/usr/local/bin/kubectl
```

install Minikube

```
curl -Lo minikube https://storage.googleapis.com/miniku... && chmod +x minikube &&
sudo mv minikube /usr/local/bin/
```

apt install Contrack

```
minikubr start -vm-driver=none                                     //next time minikube
start only
```

```
minikube status
```

```
*****
```

```
kind: Pod
```

```
apiVersion: v1
```

metadata:

name: testpod

spec:

containers:

name: c00

image: ubuntu

command: ["/bin/bash", "-c", "while true; do echo Hello-Bhupinder; sleep 5 ; done"]

restartPolicy: Never # Defaults to Always

kubectl apply -f pod1.yml

MULTI CONTAINER POD ENVIRONMENT

kind: Pod

apiVersion: v1

metadata:

name: testpod3

spec:

containers:

name: c00

image: ubuntu

command: ["/bin/bash", "-c", "while true; do echo Technical-Guftgu; sleep 5 ; done"]

name: c01

image: ubuntu

```
command: ["/bin/bash", "-c", "while true; do echo Hello-Bhupinder; sleep 5 ; done"]
```

```
*****
```

```
*****
```

POD ENVIRONMENT VARIABLES

```
kind: Pod
```

```
apiVersion: v1
```

```
metadata:
```

```
  name: environments
```

```
spec:
```

```
  containers:
```

```
name: c00
```

```
  image: ubuntu
```

```
  command: ["/bin/bash", "-c", "while true; do echo Hello-Bhupinder; sleep 5 ; done"]
```

```
  env:          # List of environment variables to be used inside the pod
```

```
name: MYNAME
```

```
  value: BHUPINDER
```

```
*****
```

```
*****
```

POD WITH PORTS

```
kind: Pod
```

```
apiVersion: v1
```

```
metadata:
```

```
  name: testpod4
```

```
spec:
```

containers:

name: c00

image: httpd

ports:

containerPort: 80