K8S
INSTALLATION
STEPS

STEP 1: MASTER NODE INSTALLATION

Create EC2 Instance from **UBUNTU AMI** with type **t2.medium** (2 core CPU and

4GB Ram) andGithub URL: https://github.com/adhig93/k8sinstall HYPERLINK

"https://github.com/adhig93/k8sinstall" [use installk8s-1.23.8.sh]

```
git clone
https://github.com/adhig93/k8sinstall.git
cd k8sinstall
sudo sh installk8s-1.23.8.sh
```

STEP 2: Kubernetes node template is now ready create an AMI from this instance to create workernodes.

To create an AMI from an instance

- Right-click on the instance you want to use as the basis for your AMI or Click-on Actions button.
- Action --> Image --> Create Image

Once the Ami is available (usually it takes 2-8 minutes to get ready), create instances with t2.micro tocreate worker nodes.

STEP 3: Login back to Master instance created in STEP 1

Initializing Master Server [Run these commands with root user]

```
sudo su --> To goto root user
kubeadm init --> To initialize Master server

Note: Copy the command along with token generated and keep it in a
separatefile, we need to run this command on worker nodes
```

Configuring Kube [Run these commands with ubuntu user]

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

Installing a CNI network on master node [ubuntu user]

```
sudo sysctl net.bridge.bridge-nf-call-iptables=1
kubectl apply -f
"https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml"kubectl get nodes
```

STEP 4: CREATE WORKER NODES [ssh to worker nodes created from **STEP 2]**

```
sudo su --> To goto root user
kubeadm join <TOKEN> [Command from STEP 3] --> To connect worker node
to Master
```

STEP 5: Login back to Master instance created in STEP 1

```
kubectl get nodes --> To list all the nodes on the cluster
```