Kubernetes Cluster Creation With Kubeadm

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Prerequisites

- Create 3 servers in the AWS console as mentioned in the class.
- Name them 1 as master and others as worker-1 and worker-2
- Connect to all the three servers.

Step - 1

Switch to root user with below command.

```
sudo su -
```

Clone the git repository on to the three servers. Below is the git command.

```
git clone https://github.com/shivagande26/kubeadm-scripts.git
```

Step - 2

Go to the /kubeadm-scripts/scripts directory on all the servers in the cloned repository. Execute common.sh script with below command in all the 3 servers.

```
./common.sh
```

Step - 3

In the master machine, Execute other script name master.sh with below command.

Note: master.sh should only be executed on master.sh

```
./master.sh
```

Step - 4

After the successful execution check the status of the installation on master with the below command.

```
kubectl get --raw=’/ready?verbose’
```

Step - 5

We should join the worker nodes to the cluster, For that follow below. Execute the below command and generate the token on the master node.

```
kubeadm token create --print-join-command
```

Above command will generate the command along with a token.

Step - 6

Execute the above generate command in all the worker nodes to join the worker nodes with master and form a cluster.

Step - 7

On the master node label the worker nodes with below command.

```
kubectl label node <node_name> node-role.kubernetes.io/worker=worker
```

Then you can execute the kubectl command and interact with cluster. For example execute “kubectl get pods”

Step - 8

Once the above step is completed go to kubeadm-scripts/manifests folder in the cloned repo and apply “metrics-server.yaml” with the below command.

```
kubectl apply -f metrics-server.yaml
```

If you want to access the cluster from your local laptop follow below.
Prerequisites

- Install kubectl on the local machine. I have mentioned about installation in the previous document.
- Once installed there will be a ~/.kube/config file. If it is not present, create that file in that path.

Step - 1

On the master node go to /etc/kubernetes/ path with the below command.

```
cd /etc/kubernetes/
```

Display the content of the admin.conf file with the below command.

```
cat admin.conf
```

Step - 2

Copy all the content. Paste the copied content in ~/.kube/config file. You should be able to connect to the cluster with kubectl commands.

For example execute “kubectl get nodes”
