Module 2: Kubernetes Architecture

Demo-2

Setting up Kubernetes Dashboard

To be performed on Master VM

Step 1: Next, we will install the dashboard. To install the Dashboard, run the following command:

```
kubectl create -f
https://raw.githubusercontent.com/kubernetes/dashboard/master/src/deploy/recommended/kubernetes-dashboard.yaml
```

```
edureka@kmaster:~$ kubectl create -f https://raw.githubusercontent.com/kuberne
-dashboard.yaml
secret "kubernetes-dashboard-certs" created
serviceaccount "kubernetes-dashboard" created
role.rbac.authorization.k8s.io "kubernetes-dashboard-minimal" created
rolebinding.rbac.authorization.k8s.io "kubernetes-dashboard-minimal" created
deployment.apps "kubernetes-dashboard" created
service "kubernetes-dashboard" created
```

Step 2: Your dashboard is now ready with it's the pod in the running state.

```
kube-system   etcd-kmaster                          1/1       Running   0
kube-system   kube-apiserver-kmaster                1/1       Running   0
kube-system   kube-controller-manager-kmaster       1/1       Running   0
kube-system   kube-dns-86f4d74b45-ggg8z             3/3       Running   0
kube-system   kube-proxy-85tp2                      1/1       Running   0
kube-system   kube-scheduler-kmaster                1/1       Running   0
kube-system   kubernetes-dashboard-7d5dcdb6d9-bbmmr 1/1       Running   0
```

Step 3:

1. By default dashboard will not be visible on the Master VM. Run the following command in the command line:

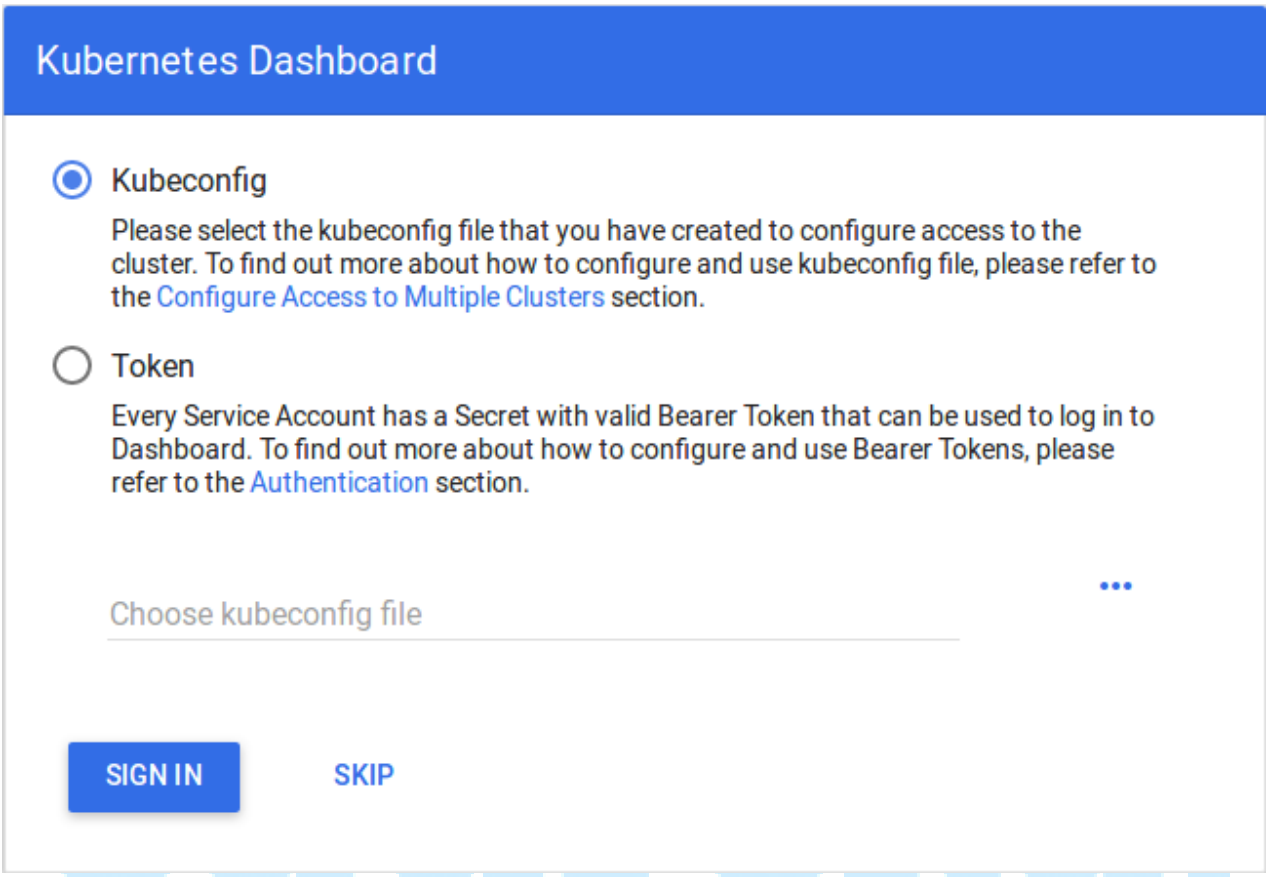
```
kubectl proxy
```

```
edureka@kmaster:~$ kubectl proxy
Starting to serve on 127.0.0.1:8001
```

2. To view the dashboard in the browser, navigate to the following address in the browser of your Master VM.

```
http://localhost:8001/api/v1/namespaces/kube-
system/services/https:kubernetes-dashboard:/proxy/
```

3. You will prompted with this page, to enter the credentials.



Step 4: In this step, we will create the service account for the dashboard and get it's credentials. Run the following commands:

Note: Run all these commands in a new terminal, or your kubectl proxy command will stop.

1. This command will create service account for dashboard in the default namespace.

```
kubectl create serviceaccount dashboard -n default
```

2. This command will add the cluster binding rules to your dashboard account

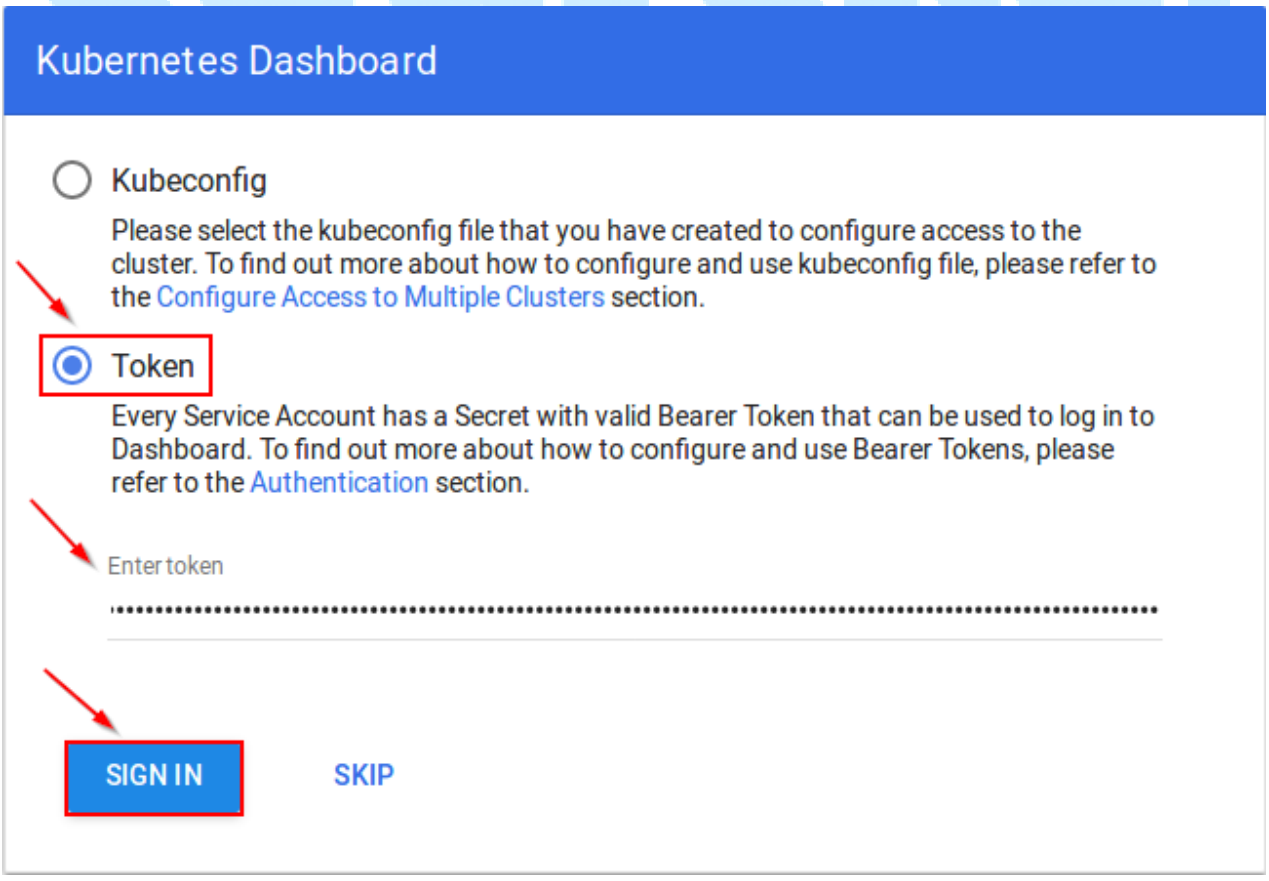
```
kubectl create clusterrolebinding dashboard-admin -n
default \
  --clusterrole=cluster-admin \
  --serviceaccount=default:dashboard
```

3. This command will give you the token required for your dashboard login.

```
kubectl get secret $(kubectl get serviceaccount dashboard -
o jsonpath="{.secrets[0].name}") -o
jsonpath="{.data.token}" | base64 --decode
```

```
edureka@kmaster:~$ kubectl get secret $(kubectl get serviceaccount dashboard -o
jsonpath="{.secrets[0].name}") -o jsonpath="{.data.token}" | base64 --decode
eyJhbGciOiJSUzI1NiIsImtpZCI6IiJ9.eyJpc3MiOiJrdWJlcm5ldGVzL3NlcnZpY2VhY2NvdW50Iiw
ia3ViZXJuZXRlcy5pby9zZXJ2aWNlYWNjb3VudC9uYW1lc3BhY2UiOiJkZWZhdWx0Iiwia3ViZXJuZXR
lcy5pby9zZXJ2aWNlYWNjb3VudC9zZWNyZXQubmFtZSI6ImRhc2hib2FyZC10b2tlbi1iOTRocSIsImt
1YmVybmV0ZXMuaW8vc2VydmljZWFjY291bnQvc2VydmljZS1hY2NvdW50Lm5hbWUiOiJkYXNoYm9hcmQ
iLCJrdWJlcm5ldGVzLmlvL3NlcnZpY2VhY2NvdW50L3NlcnZpY2UtYWNjb3VudC51aWQiOiJhYWY1Yzl
iMS01YWE0LTExZTgtOGY3YS0wODAwMjdmODlkZWQiLCJzdWIiOiJzeXN0ZW06c2VydmljZWFjY291bnQ
6ZGVmYXVsdDpkYXNoYm9hcmQifQ.wKPklOjENDmJ4l74LhQNCHIQ2Gs2jUlo0vYdk4pkU4vN8iB54x7I
9BqOYUIujW_zEZqjnWyQdjnDu2DAMtXwC_5uILo4SaTTl_bVaRVrbOoVCxxElaUyHQfppzEL8-EJNXXG
UuIqzvzYr8zkYRtAqTIcjb3tXBlIcRg5Ru-moN7IdPxXwaeRWjdJWiH96h_VRmO5myiCoX_gTBHztWQ0
0sdgOWuFf2fTodCO-e516vxBzNOThKdzGKBE2m7FenwXcCLTkZwHUhUK6yZuJq_vDpON1P7ARqQYnwXj
h6eHzKgJ9b8rf41D6m6DmlSOvgd0SCPfwjkZ_ppv_tl-XVPdTQedureka@kmaster:~$
```

4. Copy this token and paste it in Dashboard Login Page, by selecting token option.



5. You have successfully logged in your dashboard!