

Module 5: Managing State with Deployments

DEMO-5

edureka!

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DEMO Steps:

Using Secret inside a pod

1. Encode the data you want to inject in your pods using base64 format

Syntax: `echo "your data" | base64`

```
edureka@kmaster:~/kube-demo$ echo edureka123 | base64
ZWR1cmVrYTEyMwo=
```

2. Copy the encoded data and paste in your secret YAML file

```
apiVersion: v1
kind: Secret
metadata:
  name: ng-secret
type: opaque
data:
  password: ZWR1cmVrYTEyMwo=
```

3. Create the secret by using `kubectl create` or `apply` command

Syntax: `kubectl apply -f ng-secret.yaml`

```
edureka@kmaster:~/kube-demo$ kubectl apply -f ng-secret.yaml
secret/ng-secret created
```

4. Now, use this secret inside of your deployment or pod spec file

```
apiVersion: apps/v1beta2
kind: Deployment
metadata:
  name: nginx-dep
spec:
  replicas: 1
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
      - name: nginx
        image: nginx
        ports:
        - containerPort: 80
        env:
        - name: UPASS
          valueFrom:
            secretKeyRef:
              name: ng-secret
              key: password
```

5. Create the the pod/deployment

Syntax: `kubectl create -f nginx-dep.yaml`

```
edureka@kmaster:~/kube-demo$ kubectl apply -f nginx-dep.yaml
deployment.apps/nginx-dep created
```

```
edureka@kmaster:~/kube-demo$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
httpd-bz7wp                         1/1     Running   1           3d
httpd-sc4tg                         1/1     Running   1           3d
nginx-dep-7476bf8dbc-9qslc         1/1     Running   0           49s
```

6. To verify go inside the pod and check the Environment variables

Syntax: `kubectl exec -it containerID bash`

```
edureka@kmaster:~/kube-demo$ kubectl exec nginx-dep-7476bf8dbc-9qslc -it bash
```

```
root@nginx-dep-7476bf8dbc-9qslc:/# env
HOSTNAME=nginx-dep-7476bf8dbc-9qslc
NJS_VERSION=1.15.3.0.2.3-1~stretch
NGINX_VERSION=1.15.3-1~stretch
KUBERNETES_PORT_443_TCP_PROTO=tcp
KUBERNETES_PORT_443_TCP_ADDR=10.96.0.1
KUBERNETES_PORT=tcp://10.96.0.1:443
PWD=/
HOME=/root
KUBERNETES_SERVICE_PORT_HTTPS=443
KUBERNETES_PORT_443_TCP_PORT=443
KUBERNETES_PORT_443_TCP=tcp://10.96.0.1:443
TERM=xterm
SHLVL=1
UPASS=edureka123
KUBERNETES_SERVICE_PORT=443
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
KUBERNETES_SERVICE_HOST=10.96.0.1
_=/usr/bin/env
```