

Kubernetes Assignment – 3

1. Create and use a Secret

```
master@master-vm:~/Desktop$ nano nginx-secret-pod.yaml
master@master-vm:~/Desktop$ kubectl apply -f nginx-secret-pod.yaml
pod/nginx-secret-pod created
master@master-vm:~/Desktop$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-pod     1/1     Running   1 (4m26s ago)   18h
nginx-secret-pod 1/1     Running   0           20s
nginxpod      0/1     Completed 0           18h
master@master-vm:~/Desktop$ kubectl logs nginx-secret-pod
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2025/03/14 04:35:54 [notice] 1#1: using the "epoll" event method
2025/03/14 04:35:54 [notice] 1#1: nginx/1.27.4
2025/03/14 04:35:54 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
2025/03/14 04:35:54 [notice] 1#1: OS: Linux 5.15.0-134-generic
2025/03/14 04:35:54 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/03/14 04:35:54 [notice] 1#1: start worker processes
2025/03/14 04:35:54 [notice] 1#1: start worker process 29
2025/03/14 04:35:54 [notice] 1#1: start worker process 30
master@master-vm:~/Desktop$ kubectl delete -f nginx-secret-pod.yaml
pod "nginx-secret-pod" deleted
master@master-vm:~/Desktop$ kubectl delete secret db-secret
secret "db-secret" deleted
master@master-vm:~/Desktop$
```

2. Create and expose a Service

```
master@master-vm:~/Desktop$ kubectl create deployment webapp --image=nginx
deployment.apps/webapp created
master@master-vm:~/Desktop$ kubectl expose deployment webapp --type=NodePort --port=80
service/webapp exposed
master@master-vm:~/Desktop$ kubectl get svc webapp
NAME    TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
webapp  NodePort    10.106.23.128 <none>        80:31391/TCP     14s
master@master-vm:~/Desktop$ minikube service webapp --url
http://192.168.49.2:31391
master@master-vm:~/Desktop$ kubectl delete svc webapp
service "webapp" deleted
master@master-vm:~/Desktop$ kubectl delete deployment webapp
deployment.apps "webapp" deleted
master@master-vm:~/Desktop$
```

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.