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$
```