

5) Create and Use a Secret

```
master@master-vm: ~/Desktop
master@master-vm:~/Desktop$ kubectl create secret generic db-secret --from-literal=DB_USER=admin --from-literal=DB_PASS=password123
secret/db-secret created
master@master-vm:~/Desktop$ kubectl get secrets
NAME      TYPE      DATA   AGE
db-secret Opaque    2       15s
master@master-vm:~/Desktop$ kubectl describe secret db-secret
Name:      db-secret
Namespace: default
Labels:    <none>
Annotations: <none>

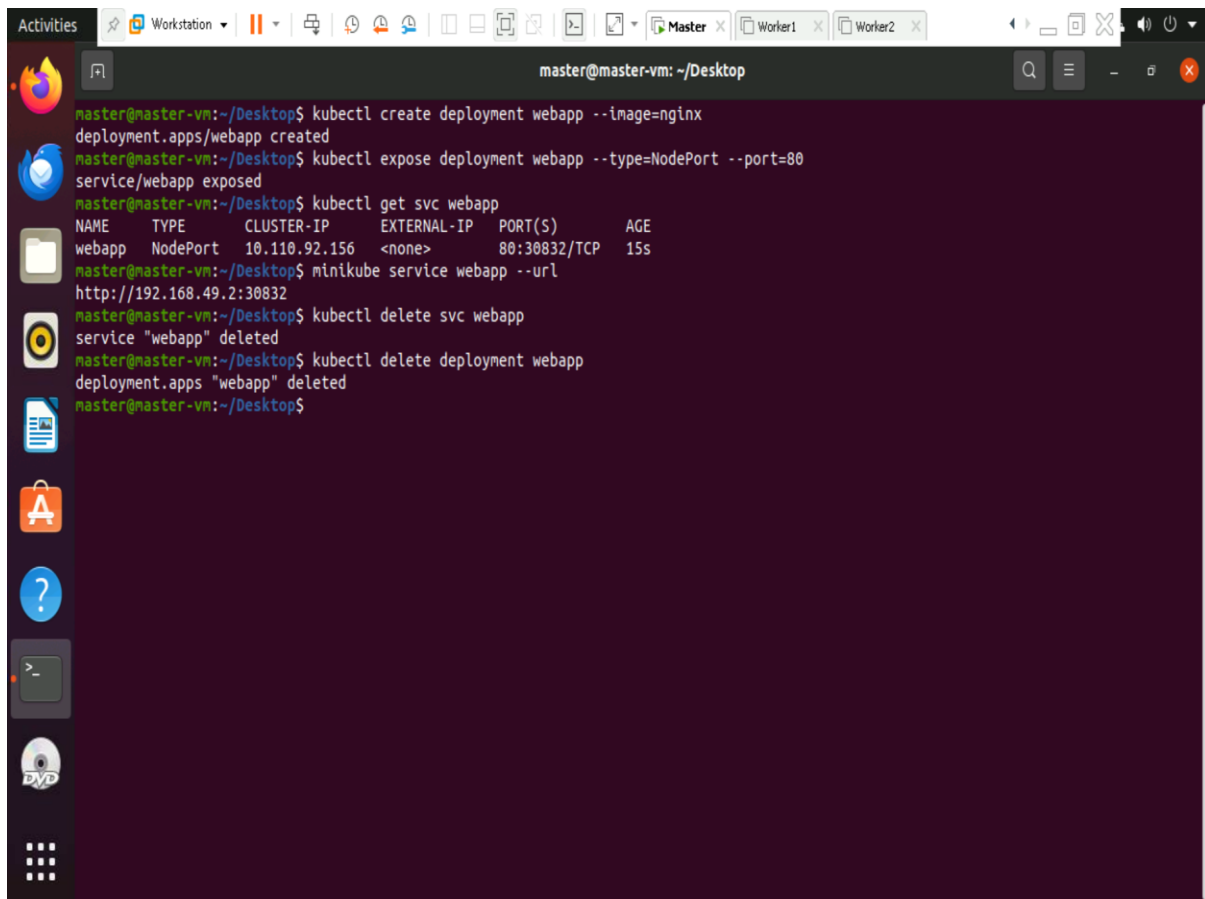
Type: Opaque

Data
====
DB_USER:  5 bytes
DB_PASS:  11 bytes
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-secret-pod 1/1     Running   0          14s
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 04:17:14 [notice] 1#1: using the "epoll" event method
2025/03/14 04:17:14 [notice] 1#1: nginx/1.27.4
2025/03/14 04:17:14 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
```

```
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DB_PASS:  11 bytes
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-secret-pod 1/1     Running   0          14s
master@master-vm:~/Desktop$ kubectl logs nginx-secret-pod
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
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2025/03/14 04:17:14 [notice] 1#1: using the "epoll" event method
2025/03/14 04:17:14 [notice] 1#1: nginx/1.27.4
2025/03/14 04:17:14 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
2025/03/14 04:17:14 [notice] 1#1: OS: Linux 5.15.0-134-generic
2025/03/14 04:17:14 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/03/14 04:17:14 [notice] 1#1: start worker processes
2025/03/14 04:17:14 [notice] 1#1: start worker process 29
2025/03/14 04:17:14 [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$
```

6) Create and Expose a Service



```
master@master-vm: ~/Desktop
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    10.110.92.156 <none>        80:30832/TCP    15s
master@master-vm:~/Desktop$ minikube service webapp --url
http://192.168.49.2:30832
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$
```

