Config Maps and Secrets

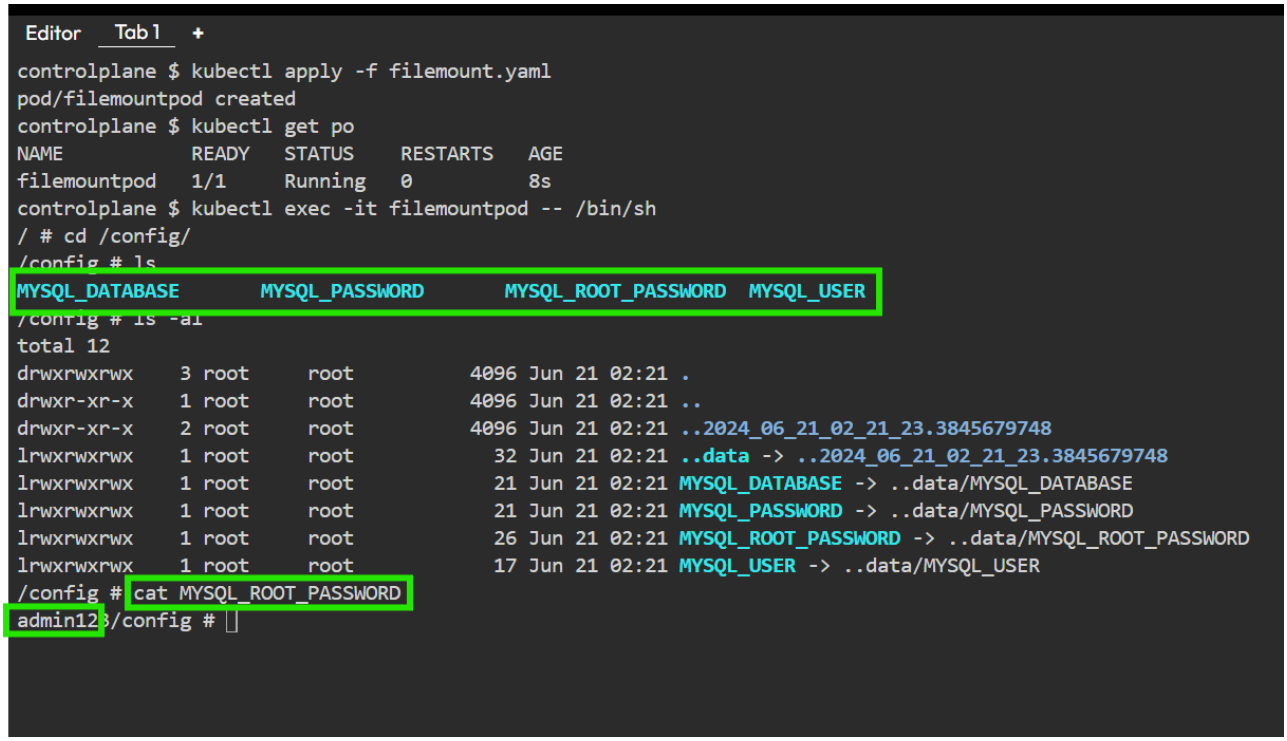
- Refer Here for official docs of config maps

Activity: Config map for mysql details and use it in mysql container

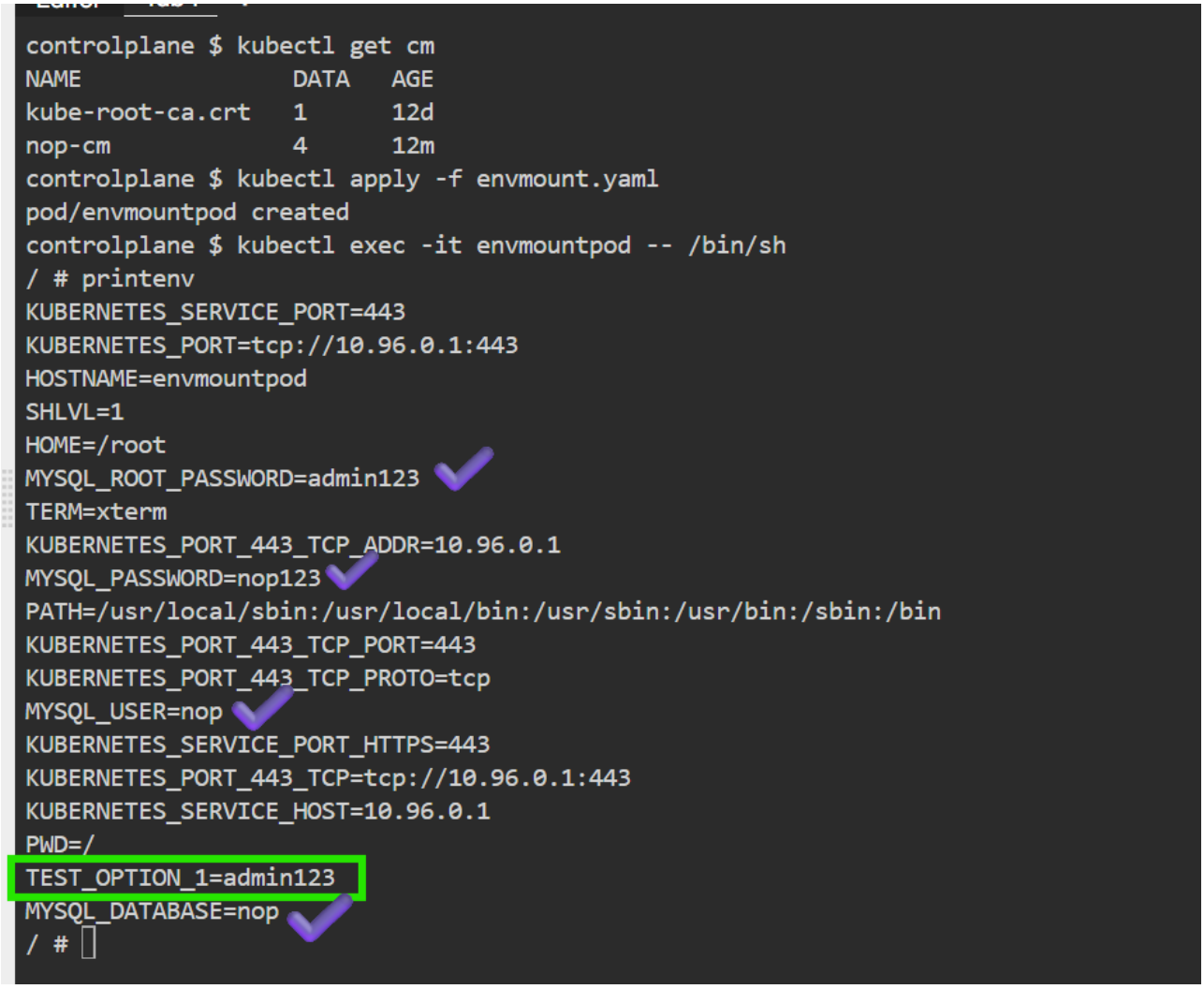
- Refer Here for the config map written and apply to the k8s cluster

```
controlplane $ kubectl apply -f nop-cm.yaml
configmap/nop-cm created
controlplane $ kubectl describe configmaps nop-cm
Name:         nop-cm
Namespace:    default
Labels:       <none>
Annotations:  <none>

Data
====
MYSQL_DATABASE:
----
nop
MYSQL_PASSWORD:
----
nop123
MYSQL_ROOT_PASSWORD:
----
admin123
MYSQL_USER:
----
nop

BinaryData
====

Events:  <none>
controlplane $
```

- Now lets mount this configmap as a folder in k8s pod. Refer Here for the pod spec



- Now lets mount this configmap as environmental variables in a pod Refer Here



- now lets create a mysql pod with all values from config map loaded as environmental variables which are critical to start the mysql container

```
controlplane $ kubectl apply -f nopdb.yaml
pod/nopdb created
controlplane $ kubectl get po
NAME    READY   STATUS              RESTARTS   AGE
nopdb   0/1     ContainerCreating   0          5s
controlplane $ kubectl get po
NAME    READY   STATUS              RESTARTS   AGE
nopdb   0/1     ContainerCreating   0          8s
controlplane $ kubectl get po
NAME    READY   STATUS              RESTARTS   AGE
nopdb   0/1     ContainerCreating   0          11s
controlplane $ kubectl get po
NAME    READY   STATUS              RESTARTS   AGE
nopdb   0/1     ContainerCreating   0          13s
controlplane $ kubectl get po
NAME    READY   STATUS    RESTARTS   AGE
nopdb   1/1     Running   0          14s
controlplane $
```

```
controlplane $ kubectl exec -it nopdb -- mysql -u nop -p
mysql: [Warning] World-writable config file '/etc/mysql/my.cnf' is ignored.
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.37 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| nop                |
| performance_schema |
+--------------------+
3 rows in set (0.00 sec)

mysql>
```
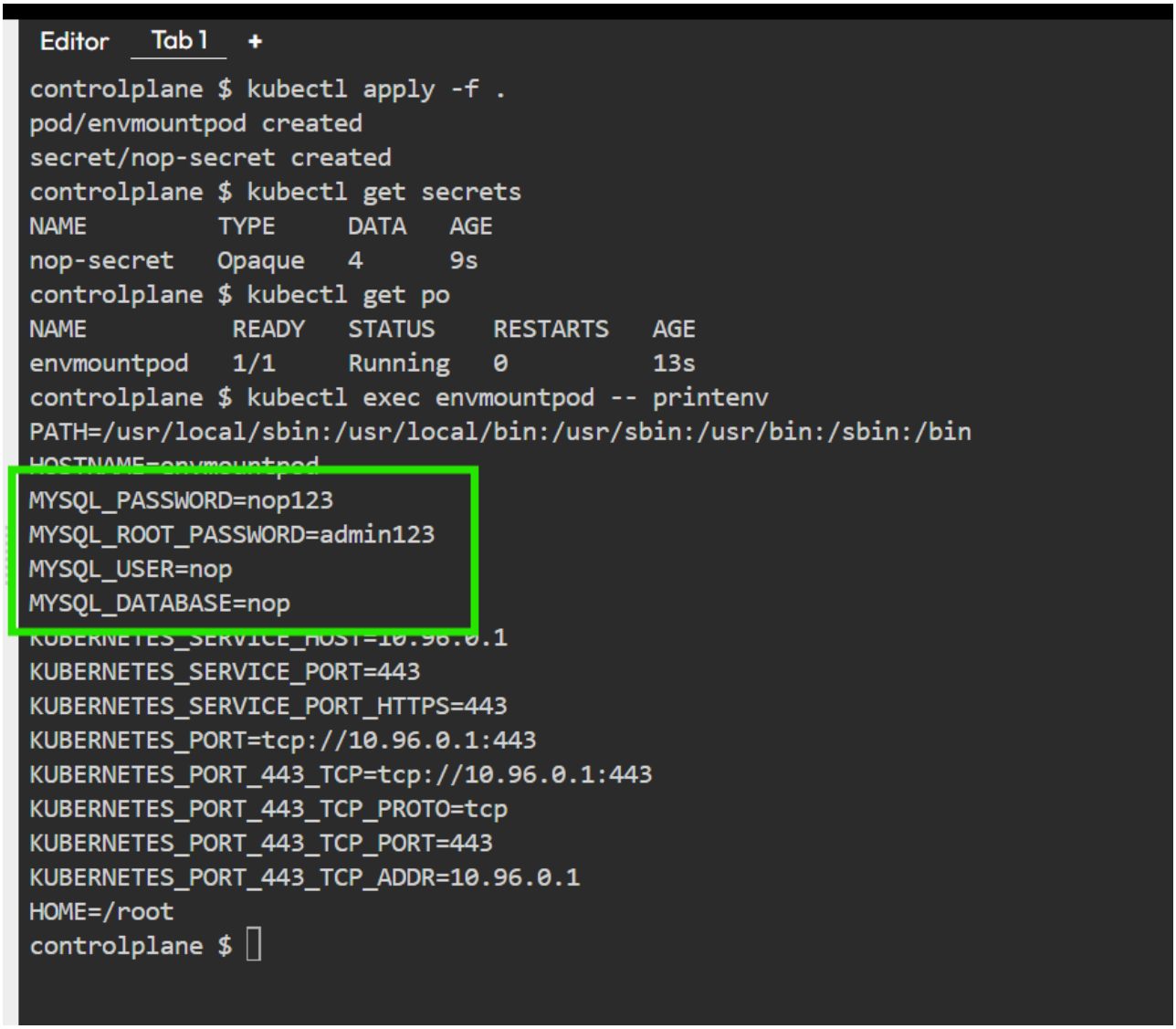

- Refer Here for the pod specification

- Secrets: Refer Here for official docs. Refer Here for the changes done



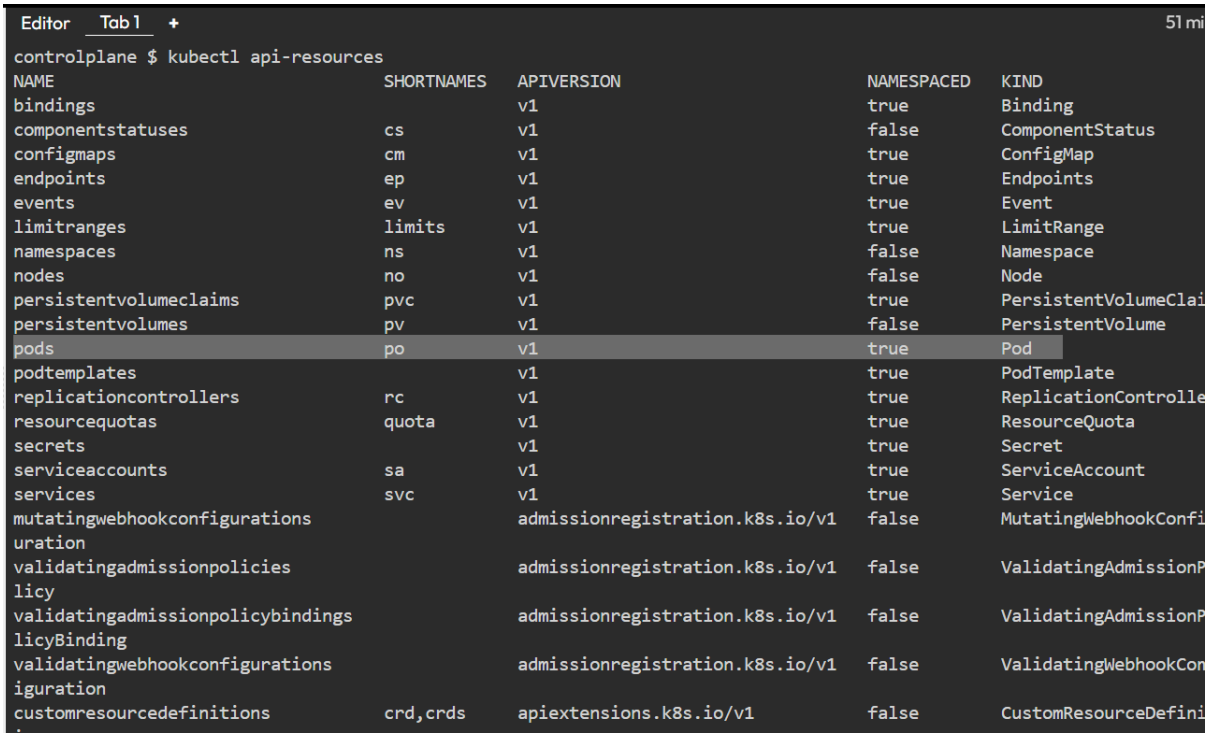
Namespace

- Refer Here for official docs

Scopes in kuberentes

- In k8s we have two types of scopes
  - cluster wide scope

- Namespace wide scope



- Namespaced true belongs to namespace scope and false belongs to cluster scope

Exercises

- try running mysql by passing environmental variables from secrets
- How to use kubectl command to always view the items from dev namespaces