**Environment Variables**

Create a pod with below configurations:

Image: gcr.io/google-samples/node-hello:1.0

Set below environment variables

DEMO\_GREETING = Hello Simplilearn

DEMO\_FAREWELL = Bye SImplilearn

Either use kubectl run or the yaml

kubectl run envvar-demo --image gcr.io/google-samples/node-hello:1.0 --env “DEMO\_GREETING=Hello Simplilearn” --env “DEMO\_FAREWELL=Bye SImplilearn”

Print environment variables

kubectl exec <podname> -- printenv

| **apiVersion**: v1  **kind**: Pod  **metadata**:  **name**: envar-demo  **labels**:  **purpose**: demonstrate-envars  **spec**:  **containers**:  **- name**: envar-demo-container  **image**: gcr.io/google-samples/node-hello:1.0  **env**:  **- name**: DEMO\_GREETING  **value**: "Hello Simplilearn"  **- name**: DEMO\_FAREWELL  **value**: "Bye Simplilearn" |
| --- |

**Secrets**

Create a secret

kubectl create secret generic --from-literal password=simplilearn mysql-secret

Use the secret in pod:

| **apiVersion**: v1  **kind**: Pod  **metadata**:  **name**: mysql-pod  **spec**:  **containers**:  **- name**: mysql  **image**: mysql  **env**:  **- name**: MYSQL\_ROOT\_PASSWORD  **valueFrom**:  **secretKeyRef**:  **name**: mysql-secret  **key**: password |
| --- |

Verify:

sudo apt update && sudo apt install mysql-client-core-8.0

mysql -h <Pod IP Address> --password=simplilearn --user=root

**ConfigMap**

Create a file called max\_packets.cnf with following content:

[mysqld]

max\_allowed\_packet = 100M

Create a configmap

kubectl create configmap --from-file=max\_packets.cnf mysql-config

Use the configMap in a pod

| **apiVersion**: v1  **kind**: Pod  **metadata**:  **name**: mysql-pod  **spec**:  **containers**:  **- name**: mysql  **image**: mysql  **volumeMounts**:  **- name**: config-file  **mountPath**: /etc/mysql/conf.d  **env**:  **- name**: MYSQL\_ROOT\_PASSWORD  **valueFrom**:  **secretKeyRef**:  **name**: mysql-secret  **key**: password  **volumes**:  **- name**: config-file  **configMap**:  **name**: mysql-config  **items**:  **- key**: max\_packets.cnf  **path**: max\_allowed\_packets.cnf |
| --- |

Verify

kubectl exec mysql-pod -- cat /etc/mysql/conf.d/max\_allowed\_packets.cnf

**Jobs:**

Print a hello statement using ubuntu image; job should be executed 10 times

Image: ubuntu

Command: /bin/sh echo Hello

Completions: 10

| **apiVersion**: batch/v1  **kind**: Job  **metadata**:  **name**: hello-job  **spec**:  **completions**: 10  **template**:  **spec:**  **containers**:  **- name**: ubuntu  **image**: ubuntu  **command**: ["echo" ,"Hello"]  **restartPolicy**: Never |
| --- |

kubectl get pods --watch

**CronJob**

| **apiVersion**: batch/v1beta1  **kind**: CronJob  **metadata**:  **name**: my-cron  **spec**:  **schedule**: "\* \* \* \* \*"  **jobTemplate**:  **spec**:  **template**:  **spec**:  **containers**:  **- name**: ubuntu  **image**: ubuntu  **command**: ["echo" ,"Hello"]  **restartPolicy**: Never |
| --- |

kubectl get pods --watch