**4. Create Kubernetes Manifests for MySQL Deployment & ClusterIP Service**

--- Reference - <https://github.com/stacksimplify/aws-eks-kubernetes-masterclass/tree/master/04-EKS-Storage-with-EBS-ElasticBlockStore/04-02-SC-PVC-ConfigMap-MySQL>

**Create MySQL Deployment manifest**

--- Environment Variables

--- Volumes

--- Volume Mounts

--- **note** – in this lecture we are going to create mysql deployment, as part of that we are going to create environmental variable related to mysql deployment root password and user. We are going to create volume mounts and also, we will create volumes for our containers.

--- we will also create mysql cluster ip service manifests.

--- **04-mysql-deployment.yml**

apiVersion: apps/v1

kind: Deployment

metadata:

  name: mysql

spec:

  replicas: 1

  selector:

    matchLabels:

      app: mysql

  strategy:

    type: Recreate # whenever the pod terminated then it will recreate the pod

  template:

    metadata:

      labels:

        app: mysql

    spec:

      containers:

        - name: mysql

          image: mysql:5.6

          env:

            - name: MYSQL\_ROOT\_PASSWORD

              value: dbpassword11

          ports:

            - containerPort: 3306

              name: mysql

          volumeMounts:

            - name: mysql-persistent-storage

              mountPath: /var/lib/mysql

            - name: usermanagement-dbcreation-script

              mountPath: /docker-entrypoint-initdb.d

#https://hub.docker.com/\_/mysql Refer Initializing a fresh instance when the docker is starts for the first time, whatever is present in the config, that will be run.

      volumes:

        - name: mysql-persistent-storage

          persistentVolumeClaim:

            claimName: ebs-mysql-pv-claim

        - name: usermanagement-dbcreation-script

          configMap:

            name: usermanagement-dbcreation-script

**Create MySQL ClusterIP Service manifest**

--- At any point of time we are going to have only one mysql pod in this design so ClusterIP: None will use the Pod IP Address instead of creating or allocating a separate IP for MySQL Cluster IP service.

--- **05-mysql-clusterip-service.yml**

apiVersion: v1

kind: Service

metadata:

  name: mysql

spec:

  selector:

    app: mysql # whatever traffic comes to the service, it needs to route the traffic to pod whose selector matches.

  ports:

    - port: 3306

  clusterIP: None # This means we are going to use Pod IP