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Sử dụng mysql khi có nhiều ứng dụng cần sử dụng

# Bước 1 : tạo configmap

Tạo một file YAML có tên mysql-configmap.yaml với nội dung sau:

**apiVersion: v1**

**kind: ConfigMap**

**metadata:**

**name: mysql-config**

**data:**

**my.cnf: |**

**[mysqld]**

**server-id = 1**

**log\_bin = /var/log/mysql/mysql-bin.log**

**binlog\_format = row**

**gtid\_mode = ON**

**enforce-gtid-consistency = true**

**transaction\_isolation = READ-COMMITTED**

**group\_replication\_start\_on\_boot = off**

**group\_replication\_bootstrap\_group = off**

**group\_replication\_single\_primary\_mode = on**

**group\_replication\_enforce\_update\_everywhere\_checks = on**

**group\_replication\_ip\_whitelist = 0.0.0.0/0**

**group\_replication\_group\_name = "aaaaaaaa-bbbb-cccc-dddd-eeeeeeeeeeee"**

**group\_replication\_local\_address = "mysql-primary:33061"**

**group\_replication\_group\_seeds = "mysql-primary:33061,mysql-replica1:33061,mysql-replica2:33061"**

**sql\_mode = STRICT\_TRANS\_TABLES,NO\_ENGINE\_SUBSTITUTION**

**áp dụng :**

**kubectl apply -f mysql-configmap.yaml**

# Bước 2 : Tạo PersistentVolume

Tạo một file YAML có tên persistent-volume.yaml với nội dung sau:

**apiVersion: v1**

**kind: PersistentVolume**

**metadata:**

**name: mysql-pv**

**spec:**

**capacity:**

**storage: 10Gi**

**accessModes:**

**- ReadWriteOnce**

**hostPath:**

**path: /mnt/data/mysql**

**storageClassName: manual**

**áp dụng:**

**kubectl apply -f persistent-volume.yaml**

# Bước 3 : tạo PersistentVolumeClaim

Tạo một file YAML có tên persistent-volume-claim.yaml với nội dung sau:

**apiVersion: v1**

**kind: PersistentVolumeClaim**

**metadata:**

**name: mysql-pvc**

**spec:**

**accessModes:**

**- ReadWriteOnce**

**resources:**

**requests:**

**storage: 10Gi**

**storageClassName: manual**

**áp dụng:**

**kubectl apply -f persistent-volume-claim.yaml**

# bước 4 : tạo statefulset

Tạo một file YAML có tên mysql-statefulset.yaml với nội dung sau:

**apiVersion: apps/v1**

**kind: StatefulSet**

**metadata:**

**name: mysql**

**spec:**

**serviceName: "mysql"**

**replicas: 3**

**selector:**

**matchLabels:**

**app: mysql**

**template:**

**metadata:**

**labels:**

**app: mysql**

**spec:**

**containers:**

**- name: mysql**

**image: mysql:8.0**

**ports:**

**- containerPort: 3306**

**- containerPort: 33061**

**volumeMounts:**

**- name: mysql-persistent-storage**

**mountPath: /var/lib/mysql**

**- name: mysql-config**

**mountPath: /etc/mysql/my.cnf**

**subPath: my.cnf**

**env:**

**- name: MYSQL\_ROOT\_PASSWORD**

**value: "your-root-password"**

**- name: MYSQL\_DATABASE**

**value: "your-database"**

**- name: MYSQL\_USER**

**value: "your-username"**

**- name: MYSQL\_PASSWORD**

**value: "your-password"**

**volumeClaimTemplates:**

**- metadata:**

**name: mysql-persistent-storage**

**spec:**

**accessModes: ["ReadWriteOnce"]**

**resources:**

**requests:**

**storage: 10Gi**

**apply:**

**kubectl apply -f mysql-statefulset.yaml**

# **Bước 5 : tạo service mysql**

Tạo một file YAML có tên mysql-service.yaml với nội dung sau:

**apiVersion: v1**

**kind: Service**

**metadata:**

**name: mysql**

**spec:**

**ports:**

**- port: 3306**

**name: mysql**

**- port: 33061**

**name: group-replication**

**clusterIP: None**

**selector:**

**app: mysql**

**apply:**

**kubectl apply -f mysql-service.yaml**

# **Bước 6 : cấu hình group replica**

**kubectl get pods -l app=mysql**

**kubectl exec -it <mysql-pod-name> -- mysql -u root -p**

**thực hiện lệnh:**

**-- Cài đặt Group Replication**

**SET SQL\_LOG\_BIN = 0;**

**CREATE USER 'replication'@'%' IDENTIFIED WITH mysql\_native\_password BY 'your-replication-password';**

**GRANT REPLICATION SLAVE ON \*.\* TO 'replication'@'%';**

**SET SQL\_LOG\_BIN = 1;**

**-- Đặt cấu hình cho nhóm replication**

**SET GLOBAL group\_replication\_group\_name = 'aaaaaaaa-bbbb-cccc-dddd-eeeeeeeeeeee';**

**SET GLOBAL group\_replication\_local\_address = 'mysql-0.mysql:33061';**

**SET GLOBAL group\_replication\_group\_seeds = 'mysql-0.mysql:33061,mysql-1.mysql:33061,mysql-2.mysql:33061';**

**-- Bắt đầu replication**

**START GROUP\_REPLICATION;**

**Thực thi .**