Create master slave trong kubernet

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1. Tạo PV và PVC

Tạo file mysql-pv.yaml

**apiVersion: v1**

**kind: PersistentVolume**

**metadata:**

**name: mysql-pv**

**spec:**

**accessModes:**

**- ReadWriteOnce**

**capacity:**

**storage: 10Gi**

**hostPath:**

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

**storageClassName: manual**

tạo file mysql-pvc.yaml

**apiVersion: v1**

**kind: PersistentVolumeClaim**

**metadata:**

**name: mysql-pvc**

**spec:**

**accessModes:**

**- ReadWriteOnce**

**resources:**

**requests:**

**storage: 10Gi**

**storageClassName: manual**

apply

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

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

1. Tạo deployment và service cho mysql master

Tạo file mysql-master-deployment.yaml

**apiVersion: apps/v1**

**kind: Deployment**

**metadata:**

**name: mysql-master**

**spec:**

**replicas: 1**

**selector:**

**matchLabels:**

**app: mysql-master**

**template:**

**metadata:**

**labels:**

**app: mysql-master**

**spec:**

**containers:**

**- name: mysql**

**image: mysql:8.0**

**env:**

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

**value: root\_password**

**- name: MYSQL\_DATABASE**

**value: your\_database**

**- name: MYSQL\_USER**

**value: replica\_user**

**- name: MYSQL\_PASSWORD**

**value: your\_password**

**ports:**

**- containerPort: 3306**

**volumeMounts:**

**- name: mysql-storage**

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

**volumes:**

**- name: mysql-storage**

**persistentVolumeClaim:**

**claimName: mysql-pvc**

tạo sevice cho deployment file mysql-master-service.yaml

**apiVersion: v1**

**kind: Service**

**metadata:**

**name: mysql-master**

**spec:**

**selector:**

**app: mysql-master**

**ports:**

**- protocol: TCP**

**port: 3306**

**clusterIP: None**

appy

**kubectl apply -f mysql-master-deployment.yaml**

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

1. **Tạo d**eployment cho slave

Tạo file mysql-slave-deployment.yaml

**apiVersion: apps/v1**

**kind: Deployment**

**metadata:**

**name: mysql-slave**

**spec:**

**replicas: 1**

**selector:**

**matchLabels:**

**app: mysql-slave**

**template:**

**metadata:**

**labels:**

**app: mysql-slave**

**spec:**

**containers:**

**- name: mysql**

**image: mysql:8.0**

**env:**

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

**value: root\_password**

**- name: MYSQL\_DATABASE**

**value: your\_database**

**- name: MYSQL\_USER**

**value: replica\_user**

**- name: MYSQL\_PASSWORD**

**value: your\_password**

**- name: MYSQL\_REPLICATION\_MODE**

**value: slave**

**- name: MYSQL\_REPLICATION\_USER**

**value: replica\_user**

**- name: MYSQL\_REPLICATION\_PASSWORD**

**value: your\_password**

**ports:**

**- containerPort: 3306**

**volumeMounts:**

**- name: mysql-storage**

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

**volumes:**

**- name: mysql-storage**

**persistentVolumeClaim:**

**claimName: mysql-pvc**

tạo service cho deployment mysql-slave-service.yaml

**apiVersion: v1**

**kind: Service**

**metadata:**

**name: mysql-slave**

**spec:**

**selector:**

**app: mysql-slave**

**ports:**

**- protocol: TCP**

**port: 3306**

**clusterIP: None**

apply

**kubectl apply -f mysql-slave-deployment.yaml**

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

1. **Cấu** hình replica

Đăng nhập vào mysql master và thực hiện tạo một user

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

**CREATE USER 'replica\_user'@'%' IDENTIFIED BY 'your\_password';**

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

**FLUSH PRIVILEGES;**

**SHOW MASTER STATUS;**

Lưu lại thông tin file binlog và vị trí.

Đăng nhập vào mysql slave

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

**STOP SLAVE;**

**CHANGE MASTER TO**

**MASTER\_HOST='mysql-master',**

**MASTER\_USER='replica\_user',**

**MASTER\_PASSWORD='your\_password',**

**MASTER\_LOG\_FILE='binlog\_file',**

**MASTER\_LOG\_POS=log\_position;**

**START SLAVE;**

1. **Kiểm tra**

**SHOW SLAVE STATUS\G;**

Kiểm tra các trường Slave\_IO\_Running và Slave\_SQL\_Running. Cả hai trường này nên có giá trị Yes nếu replication hoạt động bình thường.