

Kubernetes Assignment 5/24/2024

Question:

1. Create a CronJob in Kubernetes named "backup-job" that runs every 5 minutes. Use the mysql:5.7 image for the job and set it to execute the command `mysqldump -h mysql-service -u root -p <database_name> > /backup/backup.sql`. This job should back up a MySQL database named "mydatabase". After running the job, save one of the pod logs to the file path `/home/ubuntu/backup_logs.txt`.

Step 1 – create a cronjob to run every 5 mins with mysql:5.7 image. Job name should be "backup-job"

```
controlplane $ nano 1.yaml
```

The yaml content:

```
GNU nano 4.8 1.yaml
apiVersion: batch/v1
kind: CronJob
metadata:
  name: backup-job
spec:
  schedule: "*/5 * * * *"
  jobTemplate:
    spec:
      template:
        spec:
          containers:
            - name: backup-job
              image: mysql:5.7
              imagePullPolicy: IfNotPresent
              command:
                - /bin/sh
                - -c
                - mysqldump -h mysql-service -u root -p mydatabase > /backup/backup.sql
          restartPolicy: OnFailure
```

Apply the yaml file:

```
controlplane $ kubectl apply -f 1.yaml
cronjob.batch/backup-job created
```

Step 2 - Return the list of all CronJobs defined in the cluster.

```
controlplane $ kubectl get cronjob
NAME          SCHEDULE    SUSPEND   ACTIVE   LAST SCHEDULE   AGE
backup-job    */5 * * * *   False     0        <none>          14s
```

Step 3 - Monitor the status or current state of pods/ any changes such as creation, deletion, or updates.

```
controlplane $ kubectl get pod --watch
NAME                                READY   STATUS    RESTARTS   AGE
backup-job-28609415-7vxjg          0/1     Completed 0           3m25s
```

Step 4 - To retrieve and display logs produced by the ('backup-job-28609365-qz8sp') pod in the terminal in order to inspect the output of the container running inside the pod.

```
^Ccontrolplane $ kubectl logs backup-job-28609415-7vxjg
Fri May 24 15:35:00 UTC 2024
```

Step 5 - print working directory you are in. navigate to the /home/ubuntu dir.

```
controlplane $ pwd
/root
controlplane $ cd /home/ubuntu
controlplane $ pwd
/home/ubuntu
```

Step 6 - Create a new file named "backup_logs.txt"

```
controlplane $ touch backup_logs.txt
controlplane $ ls
backup_logs.txt
```

Step 7 - Redirect the output of the kubectl logs command to a file named "backup_logs.txt" located in the "/home/ubuntu" directory.

```
controlplane $ kubectl logs backup-job-28609415-7vxjg > /home/ubuntu/backup_logs.txt
```

Step 8 - Display the contents of the backup_logs.txt

```
controlplane $ cat /home/ubuntu/backup_logs.txt
Fri May 24 15:35:00 UTC 2024
```