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School of Technology

Department of Computer Science & Engineering

Cloud Computing Lab (20CP322P)

B.Tech-Computer Science & Engineering (Sem-VI)

Lab 8 Assignment: Working with DOCKER.

Aim:

- Create mysql container with some specific version with Volume named mysql-db
- After Starting the Container Verify Container Status
- Go to Database and Create Some Data
- Stop and remove the Container
- Start new MqSQL Container with existing Volume and Verify the Data

Step 1: Create mysql container with some specific version with Volume named mysql-db.

```
pdev2@Dev MINGW64 /  
$ docker run -d --name mysql-container -v mysql-db:/var/lib/mysql -e MYSQL_ROOT_PASSWORD=password -e MYSQL_DATABASE=mydb -e MYSQL_USER=root -e MYSQL_PASSWORD=password mysql:latest  
bd169187fc198e2b1973282e89ee91a96d8d2c319b1b076a4edac93c0ff9596e
```

Step 2: After Starting the Container Verify Container Status

```
pdev2@Dev MINGW64 /  
$ docker ps -a | grep mysql-container  
bd169187fc19  mysql:latest  "docker-entrypoint.s..."  2 minutes ago  Exited (1) 2 minutes ago  mysql-container
```

Step 3: Go to Database and Create Some Data.

```
$ mysql -u root -p  
Enter password: *****  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 11  
Server version: 8.0.31 MySQL Community Server - GPL  
  
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affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| c_d      |  
| client   |  
| clothstore |  
| dataconstraints |  
| exp5     |  
| fixitfleet |  
| information_schema |  
| mydb     |  
| mysql    |  
| osms_db  |  
| performance_schema |  
| supplier |  
| sys      |  
+-----+  
13 rows in set (0.03 sec)  
  
mysql> use mydb;  
Database changed
```

```
mysql> CREATE TABLE students(  
-> id INT AUTO_INCREMENT PRIMARY KEY,  
-> name VARCHAR(255) NOT NULL  
-> );  
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> INSERT INTO students (name) VALUES ('Dev Panchal');  
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from students;
+----+-----+
| id | name      |
+----+-----+
|  1 | Dev Panchal |
+----+-----+
1 row in set (0.00 sec)
```

Step 4: Stop and remove the Container

```
pdev2@Dev MINGW64 /
$ docker stop mysql-container
mysql-container

pdev2@Dev MINGW64 /
$ docker rm mysql-container
mysql-container
```

Step 5: Start new MqSQL Container with existing Volume and Verify the Data

```
pdev2@Dev MINGW64 /
$ docker run -d --name mysql-container -v mysql-db:/var/lib/mysql -e MYSQL_PASSWORD=password mysql:8.0
Unable to find image 'mysql:8.0' locally
8.0: Pulling from library/mysql
2ba873cb070a: Pull complete
64073634efcc: Pull complete
ca025b52c777: Pull complete
091a1e5789d4: Pull complete
15ab1febf123: Pull complete
e0c05e4058de: Pull complete
83c6654d8546: Pull complete
972ceacaa396: Pull complete
b9cf75b54f0c: Pull complete
5c407b83071d: Pull complete
dd699dd4735c: Pull complete
Digest: sha256:ce628295ff5aa269e4d0241e0552476fa0de3af263daedf196ccb6fc0834fa6b
Status: Downloaded newer image for mysql:8.0
0f1f8642b2add6524f469ef0d958652bd729b2b3f05a19020dc4ccf8a1362f35
```