

Práctica 05 Contenedor Docker para MySQL

Objetivo

El alumnado deberá de generar contenedor para la base de datos en MySql utilizando Docker.

Instrucciones:

1. Descargar contenedor Docker de MySql.

```
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# docker pull mysql:latest
latest: Pulling from library/mysql
46ef68baacb7: Pull complete
94c1114b2e9c: Pull complete
ff05e3f38802: Pull complete
41cc3fcd9912: Pull complete
07bbc8bdf52a: Pull complete
6d88f83726a9: Pull complete
cf5c7d5d33f7: Pull complete
9db3175a2a66: Pull complete
feaedeb27fa9: Pull complete
cf91e7784414: Pull complete
b1770db1c329: Pull complete
Digest: sha256:15f069202c46cf861ce429423ae3f8dfa6423306fbf399eaeef36094ce30dd75c
Status: Downloaded newer image for mysql:latest
docker.io/library/mysql:latest
```

2. Ingresar al contenedor.

```
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# docker run --name mysql-demo -e MYSQL_ROOT_PASSWORD=demo -d -v mysql-demo:/var/lib/mysql mysql:latest
db988821b41617ecb40435e0c0189f3610c9278a7e47d979f254a4f8996c103f
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# docker inspect -f '{{range.NetworkSettings.Networks}}{{.IPAddress}}{{end}}' mysql-demo
172.17.0.2
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# mysql -h 172.17.0.2 -P 3306 --protocol=tcp -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.33 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

3. Montar volumen para persistir los datos.

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

mysql>
```

4. Administrar red a través de comando: Docker network

```
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# docker network create network-mysql
421eda9365bf95e47034da7798715a72941fdf129017aa9ef6886f8973178c0
root@lab12:/home/lab1_12/Documentos/unidad2_mgsl/pract05# docker run --name mysql-demo -e MYSQL_ROOT_PASSWORD=demo -d -v mysql-demo:/var/lib/mysql --network network-mysql mysql:latest
98a3842afb606d66a2b7b31cfb1eb48141125a34cc77a4fab9a57daa06ccba99
```

5. Una vez ingresado al gestor de mysql deberá de crear base de datos llamada practica05

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| practica05 |
| sys |
+-----+
5 rows in set (0.01 sec)
```

6. Crear al menos una tabla sobre información proporcionada por el equipo de desarrollo. Por ejemplo, Eventos, Usuarios, Productos.

```
mysql> create table users(
-> id int primary key auto_increment,
-> username varchar(50),
-> password varchar(20)
-> );
Query OK, 0 rows affected (0.03 sec)
```

7. Ejecutar operaciones:

- Insertar al menos cinco registros distintos a la tabla recién creada en paso anterior.

```
mysql> INSERT INTO users (username, password) VALUES('admeventick','admeventick');
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO users (username, password) VALUES('admredes','admredes');
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO users (username, password) VALUES('admpage','admpage');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO users (username, password) VALUES('admdatabase','admdatabase');
Query OK, 1 row affected (0.04 sec)

mysql> INSERT INTO users (username, password) VALUES('admproduct','admproduct');
Query OK, 1 row affected (0.02 sec)
```

- Listar todos los registros de la tabla.

```
mysql> select * from users;
+-----+-----+-----+
| id | username | password |
+-----+-----+-----+
| 1 | admeventick | admeventick |
| 2 | admredes | admredes |
| 3 | admpage | admpage |
| 4 | admdatabase | admdatabase |
| 5 | admproduct | admproducts |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

- Modificar al menos dos registros.

```
mysql> UPDATE users SET password = 'admproducts' WHERE id = 5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> UPDATE users SET password = 'admeventicknow' WHERE id = 1;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

- Eliminar el último registro insertado en la tabla.

```
mysql> delete from users where id = 5;
Query OK, 1 row affected (0.04 sec)

mysql> select * from users;
+-----+-----+-----+
| id | username | password |
+-----+-----+-----+
| 1 | admeventick | admeventicknow |
| 2 | admredes | admredes |
| 3 | admpage | admpage |
| 4 | admdatabase | admdatabase |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

8. Crear un documento en formato PDF donde se agreguen las imágenes evidencias de pasos anteriores practica04_[nombre completo].pdf

9. Depositar archivo en carpeta practica04 en repositorio GitHub.