

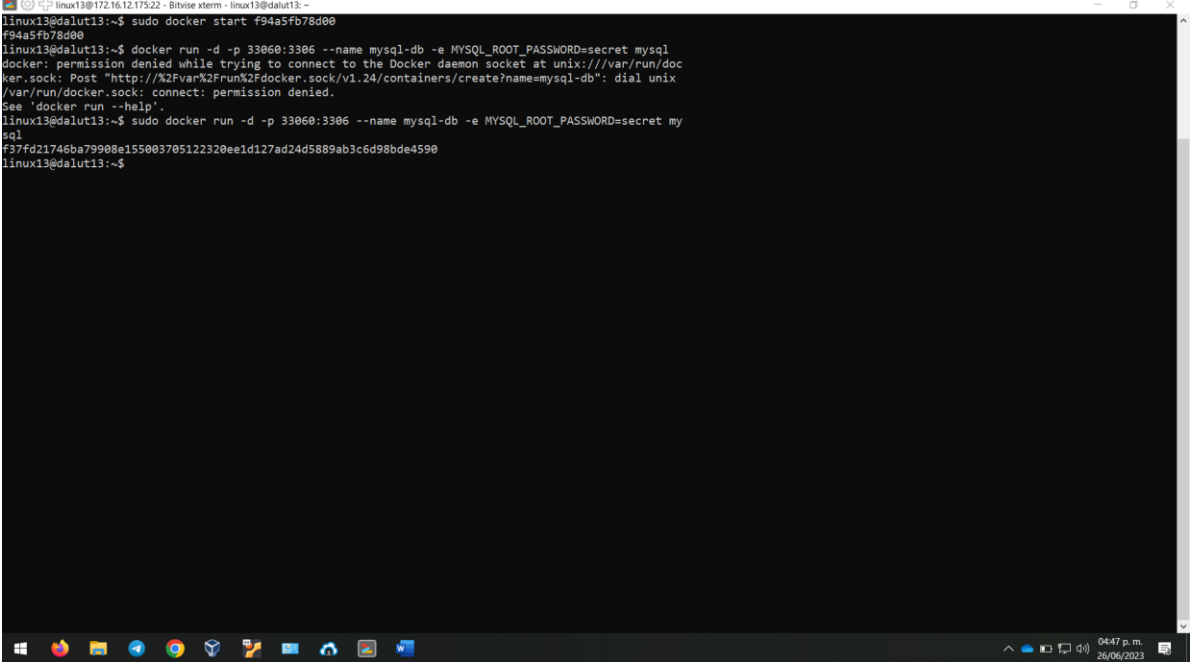
Práctica 05 Contenedor Docker para MySQL

Objetivo

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

Instrucciones

1. Descargar contenedor Docker de MySql.



```
linux13@172.16.12.17522 - Bitvise xterm - linux13@dalu13: ~  
linux13@dalu13:~$ sudo docker start f94a5fb78d00  
f94a5fb78d00  
linux13@dalu13:~$ docker run -d -p 33060:3306 --name mysql-db -e MYSQL_ROOT_PASSWORD=secret mysql  
docker: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/doc  
ker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/create?name=mysql-db": dial unix  
/var/run/docker.sock: connect: permission denied.  
See 'docker run --help'.  
linux13@dalu13:~$ sudo docker run -d -p 33060:3306 --name mysql-db -e MYSQL_ROOT_PASSWORD=secret my  
sql  
f37fd21746ba79908e155083705122320ee1d127ad24d5889ab3c6d98bde4590  
linux13@dalu13:~$
```

2. Ingresar al contenedor.

```
linux13@dalut13:~$ sudo docker exec -it mysql-db mysql -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

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
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>
```

3. Montar volumen para persistir los datos.

```
linux13@dalut13:~$ sudo docker rm -f mysql-db
mysql-db
linux13@dalut13:~$ docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] y
permission denied while trying to connect to the Docker daemon socket at unix:///var/
run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/volumes/prune": dial u
nix /var/run/docker.sock: connect: permission denied
linux13@dalut13:~$ sudo docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] y
Deleted Volumes:
6283515f9c182ffa8dccc108e8465078d89e0ee937b44d9070b2ffefde360d3c
b0b0b5c80474449a4b96dc7ffafe2b6f30c38a408f72b84a404b9ef5df823d93

Total reclaimed space: 405.2MB
linux13@dalut13:~$ docker volume create mysql-db-data
permission denied while trying to connect to the Docker daemon socket at unix:///var/
run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/volumes/create": dial
unix /var/run/docker.sock: connect: permission denied
linux13@dalut13:~$ sudo docker volume create mysql-db-data
mysql-db-data
linux13@dalut13:~$ docker volume ls
permission denied while trying to connect to the Docker daemon socket at unix:///var/
run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/volumes": dial unix /va
r/run/docker.sock: connect: permission denied
linux13@dalut13:~$ sudo docker volume ls
DRIVER      VOLUME NAME
local      mysql-db-data
linux13@dalut13:~$
```

4. Administrar red a través de comando: [Docker network](#)

```
linux13@daltut13:~$ sudo docker network create network-mysql-db
1352454ec6833cf853d1a6c8b096729524250c04d0d56be3325949f0e8321a1f
linux13@daltut13:~$ sudo docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
e69fa28eae6df       bridge             bridge             local
c71901b85687        host               host               local
1352454ec683        network-mysql-db   bridge             local
d71467c05d6f        none              null               local
linux13@daltut13:~$ sudo docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
linux13@daltut13:~$ sudo docker image
Usage: docker image COMMAND
Manage images
Commands:
  build      Build an image from a Dockerfile
  history    Show the history of an image
  import     Import the contents from a tarball to create a filesystem image
  inspect    Display detailed information on one or more images
  load       Load an image from a tar archive or STDIN
  ls         List images
  prune      Remove unused images
  pull       Download an image from a registry
  push       Upload an image to a registry
  rm         Remove one or more images
  save       Save one or more images to a tar archive (streamed to STDOUT by default)
  tag        Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
Run 'docker image COMMAND --help' for more information on a command.
linux13@daltut13:~$ sudo docker images
REPOSITORY    TAG       IMAGE ID       CREATED          SIZE
mysql          latest   91b53e2624b4  10 days ago     565MB
linux13@daltut13:~$
```

```
linux13@daltut13:~$ sudo docker run --name mysql-db -e MYSQL_ROOT_PASSWORD=secret -d -v mysql-db:/var/lib/mysql --network network-mysql-db mysql:latest
3dc8be2feba6c6bf751232a12fac7ff83337b6d67532c239eb77d97816a4b74b
linux13@daltut13:~$ sudo docker inspect -f '{{range.NetworkSettings.Networks}}{{.IPAddress}}{{end}}' mysql-db
172.18.0.2
linux13@daltut13:~$
```

5. Una vez ingresado al gestor de MySql deberá de crear base de datos llamada [practica04](#)

```
linux13@dalut13:~$ sudo docker run --name mysql-db -e MYSQL_ROOT_PASSWORD=secret -d -v mysql-db:/var/lib/mysql --network network-mysql-db mysql:latest
3dc8be2feba6cfb751232a12fac7ff83337b6d67532c239eb77d97816a4b74b
linux13@dalut13:~$ sudo docker inspect -f '{{range.NetworkSettings.Networks}}{{.IPAddress}}{{end}}' mysql-db
172.18.0.2
linux13@dalut13:~$ mysql -h 172.18.0.2 -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

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
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>
```

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

```
mysql> create database ventamoda;
Query OK, 1 row affected (0,01 sec)

mysql> use ventamoda;
Database changed
mysql> CREATE TABLE usuarios (
  -> id BIGINT UNSIGNED AUTO_INCREMENT PRIMARY KEY,
  -> name VARCHAR(150),
  -> email VARCHAR(100),
  -> user_name VARCHAR(15)
  -> );
Query OK, 0 rows affected (0,03 sec)
```

```
mysql> CREATE TABLE producto (  
-> productid BIGINT UNSIGNED AUTO_INCREMENT PRIMARY KEY,  
-> name VARCHAR(100),  
-> type_product VARCHAR(20),  
-> Description VARCHAR(500),  
-> state VARCHAR(10)  
-> );  
Query OK, 0 rows affected (0,03 sec)  
  
mysql>
```

7. Ejecutar operaciones:

- Insertar al menos cinco registros distintos a la tabla recién creada en paso anterior.
- Listar todos los registros de la tabla.
- Modificar al menos dos registros
- Eliminar el último registro insertado en la tabla

```
mysql> INSERT INTO producto(productid,name,type_product,Description,state) values
-> (1,"Sueter","Ropa","Sueter color rojo elegante","Terminado"),
-> (2,"Abrigo","Ropa","Es un abrigo muy comodo de color negro","En venta"),
-> (3,"Tennis","Calzado","Tennis blancos marca patito","En venta"),
-> (4,"Pantalon Vaquero","Ropa","Pantalones de mezquilla color azul","En venta"),
-> (5,"Sudadera","Ropa","Sudadera color gris talla maediana para mujer","En venta")
-> ;
Query OK, 5 rows affected (0,02 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql>
```

```
mysql> SELECT*FROM producto
-> ;
```

productid	name	state	type_product	Description
1	Sueter	Terminado	Ropa	Sueter color rojo elegnate
2	Abrigo	En venta	Ropa	Es un abrigo muy comodo de color negr
3	Tennis	En venta	Calzado	Tennis blancos marca patito
4	Pantalon Vaquero	En venta	Ropa	Pantalones de mezquilla color azul
5	Sudadera	En venta	Ropa	Sudadera color gris talla maediana pa

```
ra mujer
5 rows in set (0,00 sec)

mysql>
```


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](#).