



INSTITUTO TECNOLÓGICO SUPERIOR DE JEREZ

6to Semestre



Ingeniería en Sistemas Computacionales

ADMINISTRACIÓN DE BASES DE DATOS

Actividad: Reporte de práctica “Instalación de BD en
Debian”

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04/03/ 2020

INTRODUCCIÓN

En el presente documento, se planea dar a conocer algunas instrucciones que se realizaron para la instalación en el DEBIAN propio, de las bases de datos de ejemplo que tiene MySQL.

Así mismo, se muestran los comandos que fueron utilizados a través de capturas de pantalla.

Y finalmente, se da una conclusión personal.

OBJETIVO

*Instalar en el DEBIAN propio las bases de ejemplo que tiene MySQL.

PROCEDIMIENTO

1. Tomar captura de la pantalla y la descripción de los pasos realizados para la instalación de cada base de datos.

RESULTADOS

Para realizar el procedimiento, fue necesario lo siguiente:

```
OpenSSH SSH client
Microsoft Windows [Versión 10.0.18362.657]
(c) 2019 Microsoft Corporation. Todos los derechos reservados.

C:\Users\acer>ssh root@176.48.16.12
root@176.48.16.12's password:

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Wed Mar  4 14:31:56 2020 from 176.48.16.1
root@gulf:~# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 38
Server version: 5.5.62-0+deb8u1 (Debian)

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owners.

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

root@localhost[(none)]>CREATE DATABASE world;
Query OK, 1 row affected (0.00 sec)
```

```
OpenSSH SSH client

root@localhost[(none)]>CREATE DATABASE world;
Query OK, 1 row affected (0.00 sec)

root@localhost[(none)]>
root@localhost[(none)]>CREATE DATABASE world_x;
Query OK, 1 row affected (0.00 sec)

root@localhost[(none)]>CREATE DATABASE sakila;
Query OK, 1 row affected (0.00 sec)

root@localhost[(none)]>CREATE DATABASE menagerie;
Query OK, 1 row affected (0.00 sec)

root@localhost[(none)]>CREATE DATABASE employees;
Query OK, 1 row affected (0.00 sec)
```

Ilustración 1. Creación de bases de datos

```
OpenSSH SSH client

root@localhost[(none)]>CREATE DATABASE employees;
Query OK, 1 row affected (0.00 sec)

root@localhost[(none)]>exit
Bye
root@gulf:~# mysql -p -u usuario world </root/world.sql
Enter password:
ERROR 1045 (28000): Access denied for user 'usuario'@'localhost' (using password: YES)
root@gulf:~# mysql -p -u root world </root/world.sql
Enter password:
root@gulf:~# mysql -p -u root world_x </root/world_x-db/world_x.sql
Enter password:
ERROR 1064 (42000) at line 36: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'json DEFAULT NULL,
PRIMARY KEY (`ID`)'
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4' at line 6
root@gulf:~# mysql -p -u root sakila </root/sakila-db/sakila-data.sql
Enter password:
ERROR 1146 (42S02) at line 45: Table 'sakila.actor' doesn't exist
root@gulf:~# mysql -p -u root sakila </root/sakila-db/sakila-schema.sql
Enter password:
root@gulf:~# mysql -p -u root sakila </root/sakila-db/sakila-data.sql
Enter password:
```

Ilustración 2. Creación de base de datos world y sakila

```
OpenSSH SSH client

root@gulf:~# mysql -p -u root employees </root/test_db-master/employees.sql
Enter password:
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
INFO
LOADING employees
INFO
LOADING dept_emp
INFO
LOADING dept_manager
INFO
LOADING titles
INFO
LOADING salaries
ERROR at line 127: Failed to open file 'show_elapsed.sql', error: 2
root@gulf:~# mysql -p -u root employees </root/test_db-master/employees.sql
Enter password:
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
INFO
LOADING employees
INFO
```

```

OpenSSH SSH client
root@gulf:~# mysql -p -u root employees </root/test_db-master/employees_partitioned.sql
Enter password:
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
ERROR at line 163: Failed to open file 'load_departments.dump', error: 2
root@gulf:~# mysql -p -u root employees </root/test_db-master/employees_partitioned.sql
Enter password:
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
INFO
LOADING employees
INFO
LOADING dept_emp
INFO
LOADING dept_manager
INFO
LOADING titles
INFO
LOADING salaries
data_load_time_diff
NULL
root@gulf:~#

```

```

OpenSSH SSH client
oot@gulf:~# mysql -p -u root employees </root/test_db-master/employees_partitioned_5.1.sql
Enter password:
INFO
CREATING DATABASE STRUCTURE
INFO
storage engine: InnoDB
INFO
LOADING departments
INFO
LOADING employees
INFO
LOADING dept_emp
INFO
LOADING dept_manager
INFO
LOADING titles
INFO
LOADING salaries
data_load_time_diff
NULL
oot@gulf:~#

```

```

OpenSSH SSH client
oot@gulf:~# mysql -p -u root employees </root/test_db-master/objects.sql
Enter password:
oot@gulf:~# mysql -p -u root employees </root/test_db-master/show_elapsed.sql
Enter password:
data_load_time_diff
NULL
oot@gulf:~# mysql -p -u root employees </root/test_db-master/test_employees_md5.sql
Enter password:
INFO
ESTING INSTALLATION
table_name      expected_records  expected_crc
employees       300024            4ec56ab5ba37218d187cf6ab09ce1aa1
departments     9                 d1af5e170d2d1591d776d5638d71fc5f
dept_manager    24                8720e2f0853ac9096b689c14664f847e
dept_emp        331603            cc6fe516f990bdaa49713fc478701b7
titles 443308        bfa016c472df68e70a03facafa1bc0a8
salaries        2844047           fd220654e95aea1b169624ffe3fca934
table_name      found_records     found_crc
employees       300024            4ec56ab5ba37218d187cf6ab09ce1aa1
departments     9                 d1af5e170d2d1591d776d5638d71fc5f
dept_manager    24                8720e2f0853ac9096b689c14664f847e
dept_emp        331603            cc6fe516f990bdaa49713fc478701b7
titles 443308        bfa016c472df68e70a03facafa1bc0a8
salaries        2844047           fd220654e95aea1b169624ffe3fca934
table_name      records_match     crc_match
employees       OK                ok
departments     OK                ok
dept_manager    OK                ok
dept_emp        OK                ok
titles OK         ok

```

```

OpenSSH SSH client
root@gulf:~# mysql -p -u root employees </root/test_db-master/test_employees_sha.sql
Enter password:
INFO
TESTING INSTALLATION
table_name      expected_records      expected_crc
employees       300024  4d4aa689914d8fd41db7e45c2168e7dcb9697359
departments     9      4b315afa0e35ca6649df897b958345bcb3d2b764
dept_manager    24      9687a7d6f93ca8847388a42a6d8d93982a841c6c
dept_emp        331603  d95ab9fe07df0865f592574b3b33b9c741d9fd1b
titles  443308  d12d5f746b88f07e69b9e36675b6067abb01b60e
salaries        2844047  b5a1785c27d75e33a4173aaa22ccf41ebd7d4a9f
table_name      found_records      found_crc
employees       300024  4d4aa689914d8fd41db7e45c2168e7dcb9697359
departments     9      4b315afa0e35ca6649df897b958345bcb3d2b764
dept_manager    24      9687a7d6f93ca8847388a42a6d8d93982a841c6c
dept_emp        331603  d95ab9fe07df0865f592574b3b33b9c741d9fd1b
titles  443308  d12d5f746b88f07e69b9e36675b6067abb01b60e
salaries        2844047  b5a1785c27d75e33a4173aaa22ccf41ebd7d4a9f
table_name      records_match      crc_match
employees       OK      ok
departments     OK      ok
dept_manager    OK      ok
dept_emp        OK      ok
titles  OK      ok
salaries        OK      ok
computation_time
00:00:17
summary result
CRC      OK

```

```

OpenSSH SSH client
root@gulf:~# mysql -p -u root menagerie </root/menagerie-db/cr_event_tbl.sql
Enter password:
root@gulf:~# mysql -p -u root menagerie </root/menagerie-db/cr_pet_tbl.sql
Enter password:
root@gulf:~# mysql -u root -p --local-infile menagerie
Enter password:
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
root@gulf:~# mysql -u root -p --local-infile menagerie
Enter password:
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 64
Server version: 5.5.62-0+deb8u1 (Debian)

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owners.

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

root@localhost[menagerie]>LOAD DATA LOCAL INFILE '/root/menagerie-db/pet.txt' INTO TABLE peet;
ERROR 1146 (42S02): Table 'menagerie.peet' doesn't exist
root@localhost[menagerie]>LOAD DATA LOCAL INFILE '/root/menagerie-db/pet.txt' INTO TABLE pet;
Query OK, 8 rows affected (0.04 sec)
Records: 8  Deleted: 0  Skipped: 0  Warnings: 0

```

Ilustración 3. Creación de base de datos menagerie

```
OpenSSH SSH client
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
root@gulf:~# mysql -u root -p --local-infile menagerie
Enter password:
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 64
Server version: 5.5.62-0+deb8u1 (Debian)

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owners.

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

root@localhost[menagerie]>LOAD DATA LOCAL INFILE '/root/menagerie-db/pet.txt' INTO TABLE peet;
ERROR 1146 (42S02): Table 'menagerie.peet' doesn't exist
root@localhost[menagerie]>LOAD DATA LOCAL INFILE '/root/menagerie-db/pet.txt' INTO TABLE pet;
Query OK, 8 rows affected (0.04 sec)
Records: 8 Deleted: 0 Skipped: 0 Warnings: 0

root@localhost[menagerie]>LOAD DATA LOCAL INFILE '/root/menagerie-db/event.txt' INTO TABLE event;
Query OK, 10 rows affected, 2 warnings (0.03 sec)
Records: 10 Deleted: 0 Skipped: 0 Warnings: 2

root@localhost[menagerie]>_
```

1. Captura de pantalla de la conexión a cada BD desde MySQL, donde aparezca su conexión a través de su cliente SSH (por ejemplo, Putty).

```
OpenSSH SSH client

C:\Users\acer>ssh root@176.48.16.12
root@176.48.16.12's password:

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permitted by applicable law.
Last login: Wed Mar  4 15:17:59 2020 from 176.48.16.1
root@gulf:~# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 65
Server version: 5.5.62-0+deb8u1 (Debian)

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owners.

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

2. Además de una consulta de todas las bases de datos.

```
OpenSSH SSH client

C:\Users\acer>ssh root@176.48.16.12
root@176.48.16.12's password:

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
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Last login: Wed Mar  4 15:17:59 2020 from 176.48.16.1
root@gulf:~# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 65
Server version: 5.5.62-0+deb8u1 (Debian)

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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.

root@localhost[(none)]>show databases;
+-----+
| Database |
+-----+
| information_schema |
| employees |
```

```
OpenSSH SSH client

Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 65
Server version: 5.5.62-0+deb8u1 (Debian)

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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.

root@localhost[(none)]>show databases;
+-----+
| Database |
+-----+
| information_schema |
| employees |
| menagerie |
| mysql |
| performance_schema |
| sakila |
| usuarios_sistema |
| world |
| world_x |
+-----+
rows in set (0.00 sec)

root@localhost[(none)]>
```

3. Una consulta de todas las tablas de las 5 bases de datos.

```
root@localhost[(none)]>use employees
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
root@localhost[employees]>show tables;
+-----+
| Tables_in_employees |
+-----+
| current_dept_emp     |
| departments          |
| dept_emp             |
| dept_emp_latest_date |
| dept_manager         |
| employees            |
| salaries             |
| titles               |
| v_full_departments   |
| v_full_employees     |
+-----+
10 rows in set (0.00 sec)

root@localhost[employees]>_
```

Ilustración 4. BD employees

```
root@localhost[employees]>use menagerie;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
root@localhost[menagerie]>show tables;
+-----+
| Tables_in_menagerie |
+-----+
| event                |
| pet                  |
+-----+
2 rows in set (0.00 sec)

root@localhost[menagerie]>
```

Ilustración 5. BD menagerie

```
root@localhost[menagerie]>use world;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
root@localhost[world]>show tables;
+-----+
| Tables_in_world      |
+-----+
| city                 |
| country              |
| countrylanguage      |
+-----+
3 rows in set (0.00 sec)

root@localhost[world]>_
```

Ilustración 6. BD world


```

OpenSSH SSH client
root@localhost[sakila]>show tables;
+-----+
| Tables_in_sakila |
+-----+
| actor              |
| actor_info         |
| address            |
| category           |
| city               |
| country            |
| customer           |
| customer_list      |
| film               |
| film_actor         |
| film_category      |
| film_list          |
| film_text          |
| inventory          |
| language           |
| nicer_but_slower_film_list |
| payment            |
| rental             |
| sales_by_film_category |
| sales_by_store     |
| staff              |
| staff_list         |
| store              |
+-----+
23 rows in set (0.00 sec)

root@localhost[sakila]>

```

Ilustración 7. Sakila

- Una consulta de todos los registros de una tabla, para cada una de las BD.

```

OpenSSH SSH client
root@localhost[sakila]>select * from actor;
+-----+-----+-----+-----+
| actor_id | first_name | last_name | last_update |
+-----+-----+-----+-----+
| 1 | PENELOPE | GUINNESS | 2006-02-15 04:34:33 |
| 2 | NICK | WAHLBERG | 2006-02-15 04:34:33 |
| 3 | ED | CHASE | 2006-02-15 04:34:33 |
| 4 | JENNIFER | DAVIS | 2006-02-15 04:34:33 |
| 5 | JOHNNY | LOLLOBRIGIDA | 2006-02-15 04:34:33 |
| 6 | BETTE | NICHOLSON | 2006-02-15 04:34:33 |
| 7 | GRACE | MOSTEL | 2006-02-15 04:34:33 |
| 8 | MATTHEW | JOHANSSON | 2006-02-15 04:34:33 |
| 9 | JOE | SWANK | 2006-02-15 04:34:33 |
| 10 | CHRISTIAN | GABLE | 2006-02-15 04:34:33 |
| 11 | ZERO | CAGE | 2006-02-15 04:34:33 |
| 12 | KARL | BERRY | 2006-02-15 04:34:33 |
| 13 | UMA | WOOD | 2006-02-15 04:34:33 |
| 14 | VIVIEN | BERGEN | 2006-02-15 04:34:33 |
| 15 | CUBA | OLIVIER | 2006-02-15 04:34:33 |
| 16 | FRED | COSTNER | 2006-02-15 04:34:33 |
| 17 | HELEN | VOIGHT | 2006-02-15 04:34:33 |
| 18 | DAN | TORN | 2006-02-15 04:34:33 |
| 19 | BOB | FAWCETT | 2006-02-15 04:34:33 |
| 20 | LUCILLE | TRACY | 2006-02-15 04:34:33 |
| 21 | KIRSTEN | PALTROW | 2006-02-15 04:34:33 |
| 22 | ELVIS | MARX | 2006-02-15 04:34:33 |
| 23 | SANDRA | KILMER | 2006-02-15 04:34:33 |
| 24 | CAMERON | STREEP | 2006-02-15 04:34:33 |
| 25 | KEVIN | BLOOM | 2006-02-15 04:34:33 |
| 26 | RIP | CRAWFORD | 2006-02-15 04:34:33 |
| 27 | JULIA | MCQUEEN | 2006-02-15 04:34:33 |
+-----+-----+-----+-----+

```

Ilustración 8. Sakila

```

mysql> use employees;
mysql> select * from employees;
+-----+-----+-----+-----+-----+
443308 rows in set (0.39 sec)

root@localhost[employees]>_

```

Ilustración 9. Employees

```

mysql> use menagerie;
mysql> show tables;
+-----+
Tables_in_menagerie |
+-----+
event                |
pet                  |
+-----+
rows in set (0.00 sec)

mysql> select * from pet;
+-----+-----+-----+-----+-----+-----+
name | owner | species | sex | birth | death |
+-----+-----+-----+-----+-----+-----+
Fluffy | Harold | cat | f | 1993-02-04 | NULL |
Claws | Gwen | cat | m | 1994-03-17 | NULL |
Buffy | Harold | dog | f | 1989-05-13 | NULL |
Fang | Benny | dog | m | 1990-08-27 | NULL |
Bowser | Diane | dog | m | 1979-08-31 | 1995-07-29 |
Chirpy | Gwen | bird | f | 1998-09-11 | NULL |
Whistler | Gwen | bird | NULL | 1997-12-09 | NULL |
Slim | Benny | snake | m | 1996-04-29 | NULL |
+-----+-----+-----+-----+-----+-----+
rows in set (0.00 sec)

mysql>_

```

Ilustración 10. Menagerie

```

mysql> select * from world;
+-----+-----+-----+-----+-----+
4079 rows in set (0.03 sec)

root@localhost[world]>_

```

Ilustración 11. World

CONCLUSIÓN

De manera general, se puede concluir que una vez que se investigó la manera en qué se instalan las bases en Debian, fue mucho más sencillo instalar las bases de datos, sin embargo, lo que me demoró un poco más fue las consultas, pero a la hora de capturarlas, no porque hayan sido complicadas.

Cabe mencionar, que al inicio se me complicó un poco el encontrar los comandos adecuados, sin embargo, la instalación se logró.

REFERENCIAS

José M^a Baquero José M^a Baquero García Alberto Blanch Alberto Blanch Manuel León Manuel León María García Ruesgas María García Ruesgas Sergio Arias Sergio Arias. (Desconocido). Cómo utilizar el comando SCP para transferir archivos hacia y desde los servidores. 04/03/2020, de arsys Sitio web: <https://www.arsys.es/blog/programacion/utilizar-comando-scp/>

Imagina. (2018). Importar o Exportar base de datos Mysql via SSH. 04/03/2020, de Imagina Sitio web: <https://clientes.imaginacolombia.com/knowledgebase/158/Importar-o-Exportar-base-de-datos-Mysql-via-SSH.html>