

SQL Database

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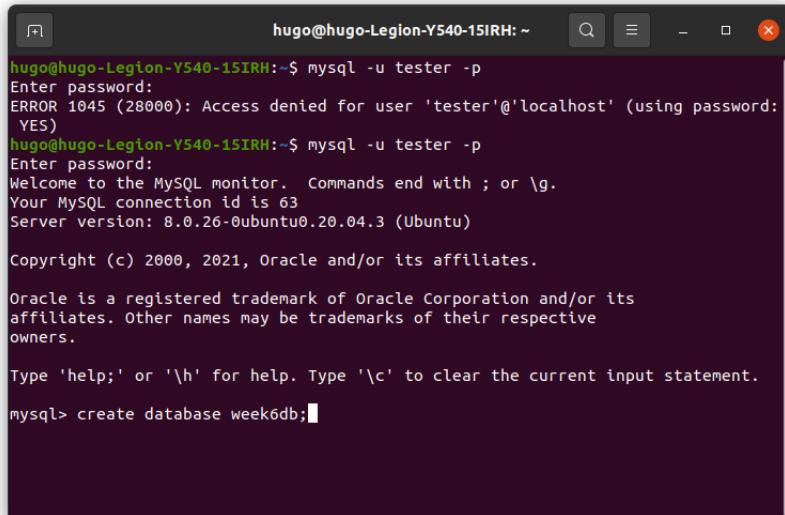
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1 Introduction

This document will describe the work done for week 7. The goal was to get started with Mysql, to do some request to manipulate a database. For this, I have first download a random database on mockaroo. The database is about bank clients and their attribute. There are 50 elements (clients). I worked on linux terminal and visualized operations in phpadmin.

2 Create database : week6db

First step was to start mysql as root and create the database "week6db".



```
hugo@hugo-Legion-Y540-15IRH:~$ mysql -u tester -p
Enter password:
ERROR 1045 (28000): Access denied for user 'tester'@'localhost' (using password:
YES)
hugo@hugo-Legion-Y540-15IRH:~$ mysql -u tester -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 63
Server version: 8.0.26-0ubuntu0.20.04.3 (Ubuntu)

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owners.

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

mysql> create database week6db;
```

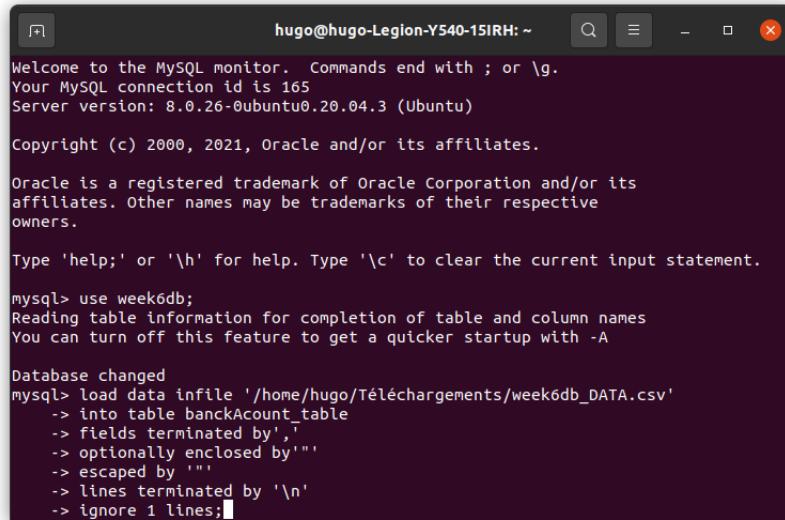
Figure 1: create week6db

Once the database was created we wanted to work on but with a non-root user. Last week we have created a non root user called "tester". In order to use

tester I have to grant him the access to the database and change permissions.
Now we can log in on Mysql as "tester" user.

3 Load table : banckacount table

Next step is to get some data in our database and create a table. I have loaded data from a csv file generated on mockaroo and created the table "banckacount table". Our table is composed of 5 filters (5 columns) : id, Firstname, Latsname, cardnumber and money. We can visualise this table on php and in the terminal with the command 'SELECT * from banckacount table'.



```
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 165
Server version: 8.0.26-0ubuntu0.20.04.3 (Ubuntu)

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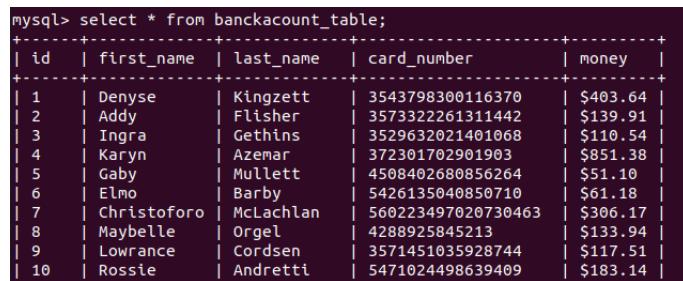
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owners.

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

mysql> use week6db;
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
mysql> load data infile '/home/hugo/Téléchargements/week6db_DATA.csv'
-> into table banckAcoun_table
-> fields terminated by(',')
-> optionally enclosed by'''
-> escaped by ''
-> lines terminated by '\n'
-> ignore 1 lines;
```

Figure 2: load data



id	first_name	last_name	card_number	money
1	Denyse	Kingzett	3543798300116370	\$403.64
2	Addy	Flisher	3573322261311442	\$139.91
3	Ingra	Gethins	3529632021401068	\$110.54
4	Karyn	Azenar	372301702901903	\$851.38
5	Gaby	Mullett	4508402680856264	\$51.10
6	Elmo	Barby	5426135040850710	\$61.18
7	Christoforo	McLachlan	560223497020730463	\$306.17
8	Maybelle	Orgel	4288925845213	\$133.94
9	Lowrance	Cordsen	3571451035928744	\$117.51
10	Rossie	Andretti	5471024498639409	\$183.14

Figure 3: terminal view

phpMyAdmin

Serveur: localhost:3306 > Base de données: week6db > [Structure](#)

Parcourir Structure SQL Rechercher

`SELECT * FROM banckacount_table`

Tout afficher Nombre de lignes : 50 Filtrer les lignes

+ Options

	id	first_name	last_name	card_number	money
1	Denyse	pires	3543798300116370	\$403.64	
2	Addy	pires	3573322261311442	\$139.91	
3	Ingra	pires	3529632021401068	\$110.54	
4	Karyn	pires	372301702901903	\$851.38	
5	Gaby	pires	4508402680856264	\$51.10	
8	Maybelle	pires	4288925845213	\$133.94	
9	Lowrance	pires	3571451035928744	\$117.51	
11	Rog	Plumbe	3565919714406453	\$821.34	
13	Florencia	Ciccarello	201515325233843	\$307.53	
16	Jandy	Beaves	201837427785318	\$311.00	
17	Demetra	Lightfoot	3562499327675417	\$182.55	
18	Angie	Sheylan	3548996696136326	\$600.56	
20	Elisabeth	Fermor	3551109628830560	\$980.51	
21	Brittni	Merwe	201716483889083	\$483.57	
22	Nathalia	Taplow	374288213384034	\$952.59	
23	Nichole	Marshfield	4508667914719286	\$974.41	
24	Zane	Seeks	3531594910673064	\$570.86	
25	Lavinia	Pound	3531085936654295	\$345.45	
26	Missy	Gusney	3584750701225813	\$274.59	
27	Mag	Gerardot	3582483459976419	\$355.92	
28	Orbadiah	Shew	3552650329225450	\$9.59	
29	Addy	Golthorpp	3552249624588249	\$414.06	
30	Mort	Beedle	3563427884338318	\$276.99	
31	Quentin	Spoerl	3548257151358966	\$567.91	
32	Barbee	Jolie	3551913188528906	\$302.61	
36	Trever	Bartholomew	201466684952393	\$697.00	
38	Eadie	Ciabatteri	3574545865292506	\$842.90	
39	Harmony	Ebourne	3562123929775058	\$925.59	
41	Sally	Haxbie	3569210117875734	\$811.71	
42	Alysa	Casaccia	3582854567392923	\$191.14	
43	Markos	Leehane	4041371028762	\$413.39	
46	Fiann	McAline	3564456775851005	\$704.85	
47	Tony	Mulqueeny	3574774499637072	\$173.13	
50	Rois	McMonies	3556623676855381	\$562.77	

Figure 4: php view

4 Update 10 records

With the command 'UPDATE banckacount table SET lastname = pires WHERE id <= 10', I changed the 10 firsts last names records and turned them into "pires".

id	first_name	last_name	card_number	money
1	Denyse	Kingzett	3543798300116370	\$403.64
2	Addy	Flisher	3573322261311442	\$139.91
3	Ingra	Gethins	3529632021401068	\$110.54
4	Karyn	Azemar	372301702901903	\$851.38
5	Gaby	Mullett	4508402680856264	\$51.10
6	Elmo	Barby	5426135040850710	\$61.18
7	Christoforo	McLachlan	560223497020730463	\$306.17
8	Maybelle	Orgel	4288925845213	\$133.94
9	Lowrance	Cordsen	3571451035928744	\$117.51
10	Rossie	Andretti	5471024498639409	\$183.14

Figure 5: before update

```
mysql> UPDATE banckacount_table SET last_name='pires' WHERE id<=10;
Query OK, 10 rows affected (0,95 sec)
Rows matched: 10  Changed: 10  Warnings: 0

mysql> select * from banckacount_table;
+----+-----+-----+-----+-----+
| id | first_name | last_name | card_number | money |
+----+-----+-----+-----+-----+
| 1  | Denyse    | pires     | 3543798300116370 | $403.64 |
| 2  | Addy       | pires     | 3573322261311442 | $139.91 |
| 3  | Ingra      | pires     | 3529632021401068 | $110.54 |
| 4  | Karyn      | pires     | 372301702901903 | $851.38 |
| 5  | Gaby       | pires     | 4508402680856264 | $51.10  |
| 6  | Elmo       | pires     | 5426135040850710 | $61.18  |
| 7  | Christoforo| pires     | 560223497020730463 | $306.17 |
| 8  | Maybelle   | pires     | 4288925845213    | $133.94 |
| 9  | Lowrance   | pires     | 3571451035928744 | $117.51 |
| 10 | Rossie     | pires     | 5471024498639409 | $183.14 |
```

Figure 6: after update

5 Delete 5 records

With the command 'DELETE FROM banckacount table WHERE cardnumber = '5';' I have deleted all the rows whith card number begining by 5. We can see there are now just 34 rows instead of 50.

```

mysql> delete from banckacount_table where card_number like '5%';
Query OK, 16 rows affected (1,01 sec)

mysql> select * from banckacount_table;
+----+-----+-----+-----+-----+
| id | first_name | last_name | card_number | money |
+----+-----+-----+-----+-----+
| 1  | Denyse    | pires     | 3543798300116370 | $403.64 |
| 2  | Addy      | pires     | 3573322261311442 | $139.91 |
| 3  | Ingra     | pires     | 3529632021401068 | $110.54 |
| 4  | Karyn     | pires     | 372301702901903  | $851.38 |
| 5  | Gaby      | pires     | 4508402680856264 | $51.10  |
| 8  | Maybelle  | pires     | 4288925845213   | $133.94 |
| 9  | Lowrance  | pires     | 3571451035928744 | $117.51 |
| 11 | Rog       | Plumbe   | 3565919714406453 | $821.34 |
| 13 | Florencia | Ciccarello | 201513525233843 | $307.53 |
| 16 | Jandy     | Beaves    | 201837427785318 | $311.00 |
| 17 | Demetra   | Lightfoot | 3562499327675417 | $182.55 |
| 18 | Angie     | Shevlan   | 3548996696136326 | $600.56 |
| 20 | Elisabeth | Fermor    | 3551109628830560 | $980.51 |
| 21 | Brittni   | Merwe    | 201716483889083  | $483.57 |
| 22 | Nathalia  | Taplow    | 374288213384034 | $952.59 |
| 23 | Nichole   | Marshfield | 4508667914719286 | $974.41 |
| 24 | Zane      | Seeks    | 3531594910673064 | $570.86 |
| 25 | Lavinia   | Pound     | 3531085936654295 | $345.45 |
| 26 | Missy     | Gusney    | 3584750701225813 | $274.59 |
| 27 | Mag       | Gerardot  | 3582483459976419 | $355.92 |
| 28 | Orbadiah | Shew     | 3552650329225450 | $9.59  |
| 29 | Addy      | Golthorpp | 3552249624588249 | $414.06 |
| 30 | Mort      | Beedle    | 3563427884338318 | $276.99 |
| 31 | Quentin   | Spoerl   | 3548257151358966 | $567.91 |
| 32 | Barbee    | Jollie    | 3551913188528906 | $302.61 |
| 36 | Trever    | Bartholomew | 201466684952393 | $697.00 |
| 38 | Eadie     | Ciabatteri | 3574545865292506 | $842.90 |
| 39 | Harmony   | Ebourne  | 3562123929775058 | $925.59 |
| 41 | Sally     | Haxbie    | 3569210117875734 | $811.71 |
| 42 | Alysa     | Casaccia | 3582854567392923 | $191.14 |
| 43 | Markos   | Leehane   | 4041371028762  | $413.39 |
| 46 | Fiann     | McAline   | 3564456775851005 | $704.85 |
| 47 | Tony      | Mulqueeny | 3574774499637072 | $173.13 |
| 50 | Rois      | McMonies | 3556623676855381 | $562.77 |
+----+-----+-----+-----+-----+
34 rows in set (0,00 sec)

```

Figure 7: delete records

6 Conclusion

In this homework we saw basics commands for manipulation of databases on Mysql. It's interesting to see how it's easy to manage a database and how it could be implemented in bigger project. Next level of command could be to do some group by or joins.