

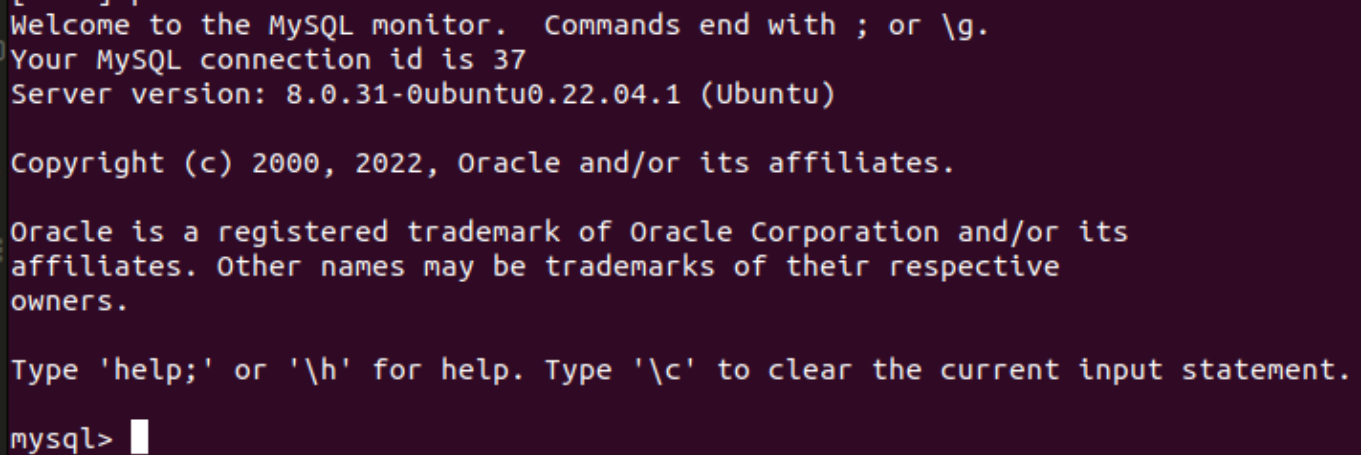
# Install MYSQL

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```
sudo apt-get install mysql-server
```

To test that mysql is well installed :

```
sudo mysql
```



```
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 37
Server version: 8.0.31-0ubuntu0.22.04.1 (Ubuntu)

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owners.

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

mysql> 
```

## Configure MYSQL

Create the database

```
CREATE DATABASE stib;
```

Create users

```
create user 'stib'@'host' identified by 'Stib1234!';
```

```
create user 'stib'@'localhost' identified by 'Stib1234!';
```

Give access

```
grant all privileges on stib.* to 'stib'@'host';
```

```
grant all privileges on stib.* to 'stib'@'localhost';
```

## Create table

Connect yourself to the database

```
use stib;
```

```
CREATE TABLE IF NOT EXISTS trips (  
  route_id INT NOT NULL,  
  service_id INT NOT NULL,  
  trip_id BIGINT PRIMARY KEY,  
  trip_headsign VARCHAR(32) NOT NULL,  
  direction_id INT NOT NULL,  
  block_id INT NOT NULL,  
  shape_id VARCHAR(32) NOT NULL);
```

```
CREATE TABLE IF NOT EXISTS routes (  
  routes_id INT PRIMARY KEY,  
  routes_short_name VARCHAR(8) NOT NULL,  
  routes_long_name VARCHAR(128) NOT NULL,  
  route_type INT NOT NULL,  
  route_color VARCHAR(8) NOT NULL,  
  route_text_color VARCHAR(8) NOT NULL);
```

```
CREATE TABLE IF NOT EXISTS calendar (  
  service_id INT PRIMARY KEY,  
  monday INT NOT NULL,  
  tuesday INT NOT NULL,  
  wednesday INT NOT NULL,  
  thursday INT NOT NULL,  
  friday INT NOT NULL,  
  saturday INT NOT NULL,  
  sunday INT NOT NULL,  
  start_date INT NOT NULL,  
  end_date INT NOT NULL);
```

```
CREATE TABLE IF NOT EXISTS stops (  
  stop_id VARCHAR(8) PRIMARY KEY,  
  stop_name VARCHAR(64) NOT NULL,  
  shape_pt_lat FLOAT(32) NOT NULL,  
  shape_pt_lon FLOAT(32) NOT NULL,  
  location_type INT NOT NULL,  
  parent_station FLOAT(8));
```

```
CREATE TABLE IF NOT EXISTS stop_times (  
  trip_id BIGINT NOT NULL,  
  arrival_time VARCHAR(32) NOT NULL,
```

```
departure_time VARCHAR(32) NOT NULL,  
stop_id VARCHAR(8) NOT NULL,  
stop_sequence INT NOT NULL,  
pickup_type INT NOT NULL,  
drop_off_type INT NOT NULL,  
PRIMARY KEY (trip_id, stop_id));
```

## VERIFY THAT IT IS GOOD

```
mysql> show tables;  
+-----+  
| Tables_in_stib |  
+-----+  
| calendar       |  
| routes         |  
| shapes         |  
| stop_times     |  
| stops          |  
| trips          |  
+-----+  
6 rows in set (0,01 sec)
```

## Load files

This line is probable to be shown when loading the csv

```
ERROR 1290 (HY000): The MySQL server is running with the --secure-file-priv  
option so it cannot execute this statement
```

To resolve this problem, run the following command and move your csv file to that specific folder

```
SHOW VARIABLES LIKE "secure_file_priv";
```

-> Sur mon ubuntu, l'output est dans : `/var/lib/mysql-files`

### Attention :

- pour **routes.csv**, il faut retirer les deux colonnes vides pour pas que ca crash
- pour **stops.csv**, il faut retirer les colonnes complètement vide puis lancer ce script :

```
data = pd.read_csv('../data/gtfs3Sept/stops.csv', sep=",")  
data = data.replace(np.nan,0)  
data.to_csv("../data/gtfs3Sept/stops.csv", index = False)
```

```
LOAD DATA INFILE '/var/lib/mysql-files/trips.csv'
INTO TABLE trips
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;

LOAD DATA INFILE '/var/lib/mysql-files/routes.csv'
INTO TABLE routes
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;

LOAD DATA INFILE '/var/lib/mysql-files/calendar.csv'
INTO TABLE calendar
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;

LOAD DATA INFILE '/var/lib/mysql-files/shapes.csv'
INTO TABLE shapes
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'parent_station
IGNORE 1 ROWS;

LOAD DATA INFILE '/var/lib/mysql-files/stop_times.csv'
INTO TABLE stop_times
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;

LOAD DATA INFILE '/var/lib/mysql-files/stops.csv'
INTO TABLE stops
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;
```

PROBLEM : stops : data truncated shapes : duplicate in primary key

## Mysql python connector

---

```
pip install mysql-connector-python
```

## Library compability

```
pip uninstall SQLAlchemy, sqlalchemy-migrate, sqlparse
```