

# INSTALLATION MANUAL

Version 2.0

Installation commands require Ubuntu 16.04 LTS OS:

## Python 3.5 and pip:

- `sudo apt-get update`
- `sudo apt-get install python3.5`
- `sudo apt-get install python3-pip`      *# for pip3 required tool installation*

## MySQL server and apache2:

- `sudo apt-get install apache2`
- `sudo apt-get install mysql-server=5.7.21-0ubuntu0.16.04.1`
- `sudo apt-get install mysql-client`
- `sudo pip3 install mysqlclient`
- `sudo apt-get install python3-mysqldb`

## MySQL client:

Open a linux terminal inside the repository called 'mysqlclient-1.3.12' and type the following commands:

- `sudo apt-get install libmysqlclient-dev`
- `python3.5 setup.py build`
- `sudo python3.5 setup.py install`

Now all Mysql server and client required tools are installed.

## Configurations and running:

### I. Task 1: Random automatic summarization

#### 1. Set Up a Virtual environment

- Navigate to the task 1 project folder *projetLong*.
- Install virtual environment using : \$ `sudo pip3 install virtualenv`
- Type \$ `virtualenv env`. This will create a new folder named env.
- Navigate to folder env/bin using \$ `cd env/bin`.
- execute the activation file, it can be done using:

- `$ chmod +x activate`
- `$ ./activate`

or simply

- `$ python3.5 activate_this.py`

## 2. Django 2.0.2 installation:

- Go back the parent folder using `$ cd ../..`
- Install Django using : `$ sudo pip3 install django`

## 3. MySQL configuration:

### a. Create a new database for events collection

- ❑ Launch the following SHELL command, opened in the repository where you can see all the project folders and files, to access MySQL monitor :

```
$ mysql -u root -p
```

- ❑ You will be asked to type your MySQL password, by default it is the same password as for your Linux Ubuntu session.

- ❑ Type your password, then type the following MySQL queries:

```
mysql > CREATE DATABASE tweegle;
mysql > exit;
```

- ❑ The command below will import the existing events database to the recently created MySQL DB:

```
$ mysql -u root -p tweegle < tweegle.sql
```

- ❑ You can start now you MySQL server (it is by default using the port 3306 on your localhost):

```
$ sudo /etc/init.d/mysql start
```

```
or $ sudo service mysql start
```

- ❑ Now it is critical to open a terminal inside the subfolder 'projetLong' of the parent folder called 'projetLong' and type:

```
$ vim settings.py
```

And add your MySQL password between the empty quotes, line 86.

- ❑ Once this modification is done and saved, you can go back the parent folder and run the django application, this can be done like below:

```
$ cd ..
```

```
$ python3.5 manage.py makemigrations (To make necessary migrations)
```

```
$ python3.5 manage.py migrate (To apply the migration)
```

```
$ python3.5 manage.py runserver (To run the application server)
```

- ❑ Now the application is running, you can simply open Google Chrome browser and type the address of the application :

`http://localhost:8000/tweegle`

- ❑ You can type keywords and select the a corresponding event from the drop down list.
- ❑ Finally, To stop the application press from keyboard :
  1. CTRL-C to end the running process.
  2. Once the django application is shutdown, you should shutdown the mysql server. To stop MySQL server, please use:

`$ sudo /etc/init.d/mysql stop` or `$ sudo service mysql stop`

**Note:** To change your MySQL password follow the steps bellow:

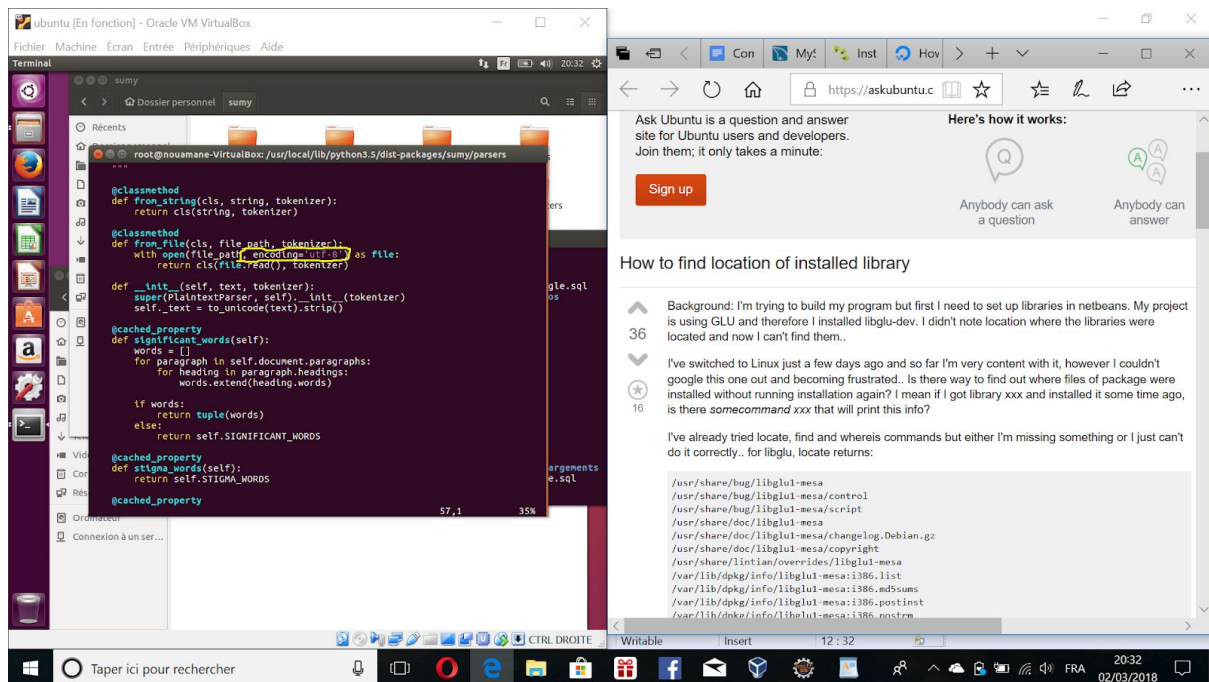
1. Connect to MySQL with your current password.
2. Use the MySQL query below to define your new MySQL password :  
`SET PASSWORD FOR 'root'@'localhost' = PASSWORD('new_password');`
3. You have to propagate this change to 'settings.py' file like for the first time.

## II. Task 2: State-of-the-art automatic summarization methods

Navigate to task 2 project folder Sumy using : `$ cd sumy`.

Once inside the folder use these following commands:

- ❖ `$ sudo python3 setup.py install`
- ❖ `$ sudo pip3 install nltk`
- ❖ `$ sudo -i`
- ❖ `$ cd /usr/local/lib/python3.5/dist-packages/sumy`
- ❖ `$ chmod 774 plaintext.py` in order to have the modification privilege.
- ❖ add a second parameter to class method from\_file : `encoding='utf-8'` (see the picture below)



- ❖ `$ sudo easy_install3 -U requests`
- ❖ `$ sudo apt-get install python-requests`
- ❖ `$ python3.5`
  - `>> import nltk`
  - `>> nltk.download()`
  - `>> d`
  - `>> l`
  - `>> punkt`
  - `>> q`
  - `>> exit()`

- ❖ In order to execute the summarization methods, go the folder (Summarization) using this command: `$ cd ../Summarization.`
- ❖ Generate the post-filtered events collection using: `$ python3.5 file_process.py`
- ❖ For Lexrank summarization method, use : `$ python3.5 lex_rank.py`
- ❖ For Textrank summarization method, use : `$ python3.5 text_rank.py`
- ❖ For SumBasic summarization method, use : `$ python3.5 sum_basic.py`

You can see the results for the 3 methods in the following folders : LexrankResult, TextrankResult and SumBasicResult.