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');
   ```

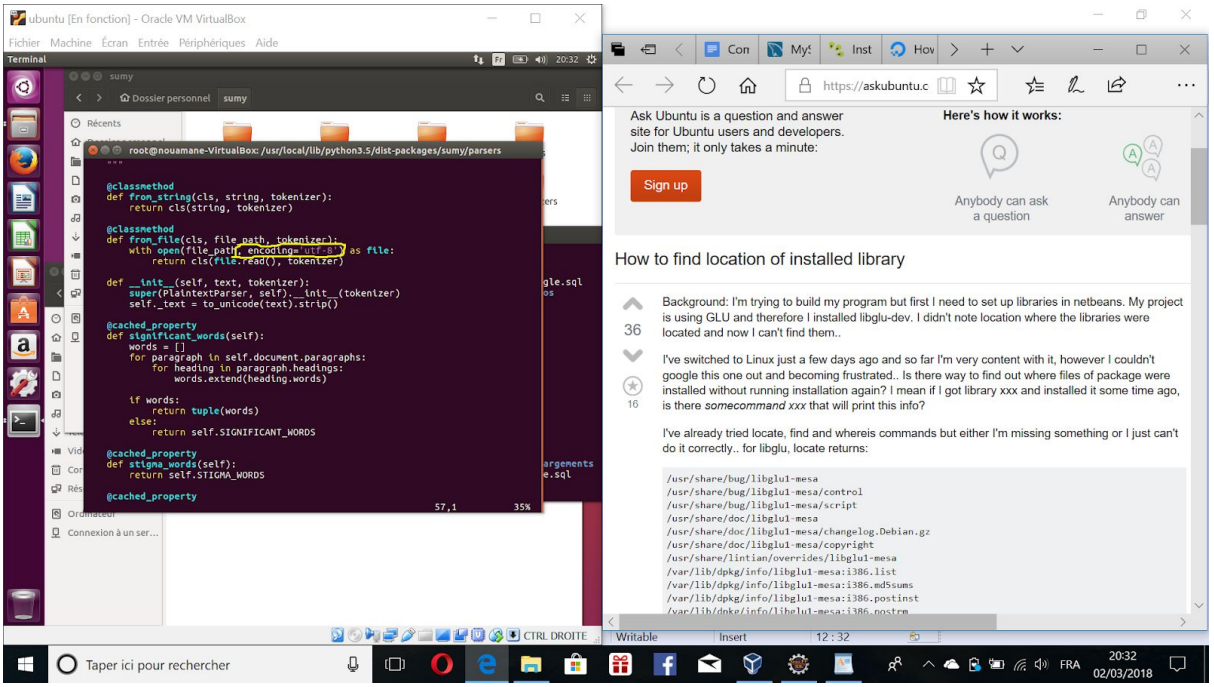
3. You have to propagate this change to 'settings.py' file like for the first time.

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/parsers*
- ❖ $ *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), using : $ *vim plaintext.py*



- $ *easy_install3 -U requests*
- $ *apt-get install python-requests*
- $ *python3.5*

  >> import nltk

  >> nltk.download()

  >> d

  >> l

  >> punkt

  >> q

  >> exit()

- $ exit in order to exit from the sudo mode.
- In order to execute the summarization methods, go back to the folder (Summarization) present in project repository.
- 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.