Appendix A Set up Virtual Environment for Python and Django, install pymzML and Bokeh

Read Me:
The following instructions can help the users to set up the Python and Django environment by downloading Anaconda in order to open the project of **mzMLProject**. The following procedure can be used to set up your personal computer to open the mzMLProject by downloading Anaconda (Python 3.7 Versions) for Windows, macOS or Linux from:

https://www.anaconda.com/distribution/#download-section

use different install method (64-Bit Graphical Installer or 64-Bit Command-Line).

* MacOS Catalina (10.15 beta) only use Command Line to install the anaconda.

Setting up a virtual environment

1. Use mac OS Catalina as an example, click the "***Terminal***" in the launchpad first.

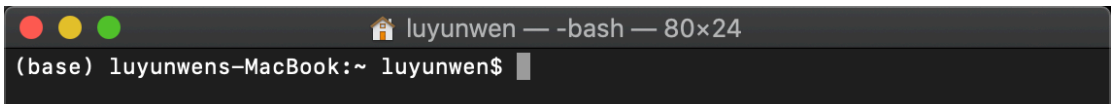

Figure A.1 The terminal for the MacOS.

NOTE: In macOS and Linux, the user has an ability to use the terminal, but in windows, the user can use the Anaconda prompt after installed Anaconda.

2. The user can list files in the current directory by entering the command "ls" for macOS or Linux ("dir" for windows) and change directories with "cd". Then, the user can create a new folder and cd to the newly create folder with the following commands:
   mkdir Workspace
   cd Workspace

3. Create a virtual environment for your development of the mzMLProject application using the following command and follow the instructions:
   conda create -n rango python=3.7.1

4. The user can replace "rango" with another virtual environment name if users prefer. The command prompt will not activate your new environment automatically, so the user needs to run the following command to activate the virtual environment: **conda activate rango**

5. The fifth step is to Install Django using the following command:
   pip install Django==2.2.1

6. Then he most important step: Unzip mzMLProject and move the entire file to the Workspace holder (Created before).
7. Install **pymzML**, which is a very fast parser for mzML data in Python. Open the Anaconda-Navigator, search ***pymzML*** to install.
8. Install **Bokeh**, which is used to draw any charts (Line chart, scatter plot, bar chart, etc.). Open the Anaconda-Navigator, search ***Bokeh*** to install.
9. Run the App though the following instruction:
   python manage.py runserver

Open a web browser and visit the link ***http://127.0.0.1:8000/*** (Login Page).