



**POLITECNICO
DI TORINO**



Data Science Lab

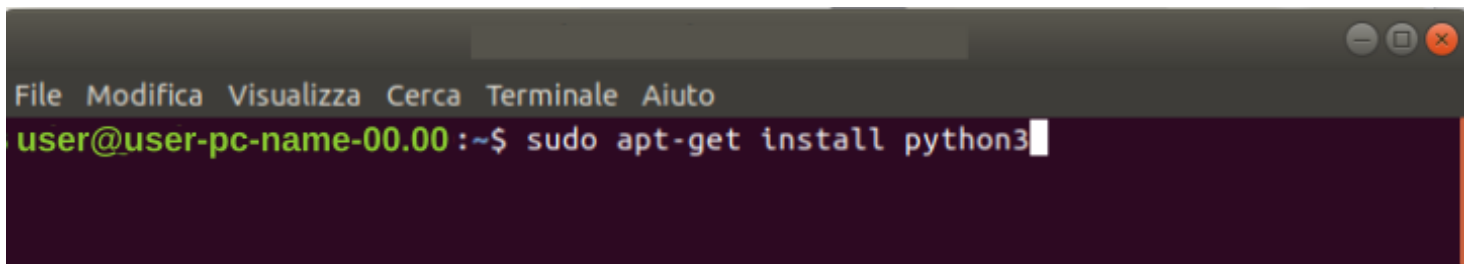
Python installation guide

DataBase and Data Mining Group

Andrea Pasini, Elena Baralis



- The main programs for running python can be installed via **apt-get** on your terminal
 - `sudo apt-get install python3`
 - `sudo apt-get install python3-pip`
 - `pip3 install ipython`
 - `pip3 install jupyter`

A screenshot of a terminal window with a dark background. The window title bar shows standard Linux window controls (minimize, maximize, close) and a menu bar with the text "File Modifica Visualizza Cerca Terminale Aiuto". The terminal prompt is "user@user-pc-name-00.00 :~\$" and the command "sudo apt-get install python3" is entered, with a white cursor at the end of the line.

```
File Modifica Visualizza Cerca Terminale Aiuto
user@user-pc-name-00.00 :~$ sudo apt-get install python3
```



■ Installing libraries

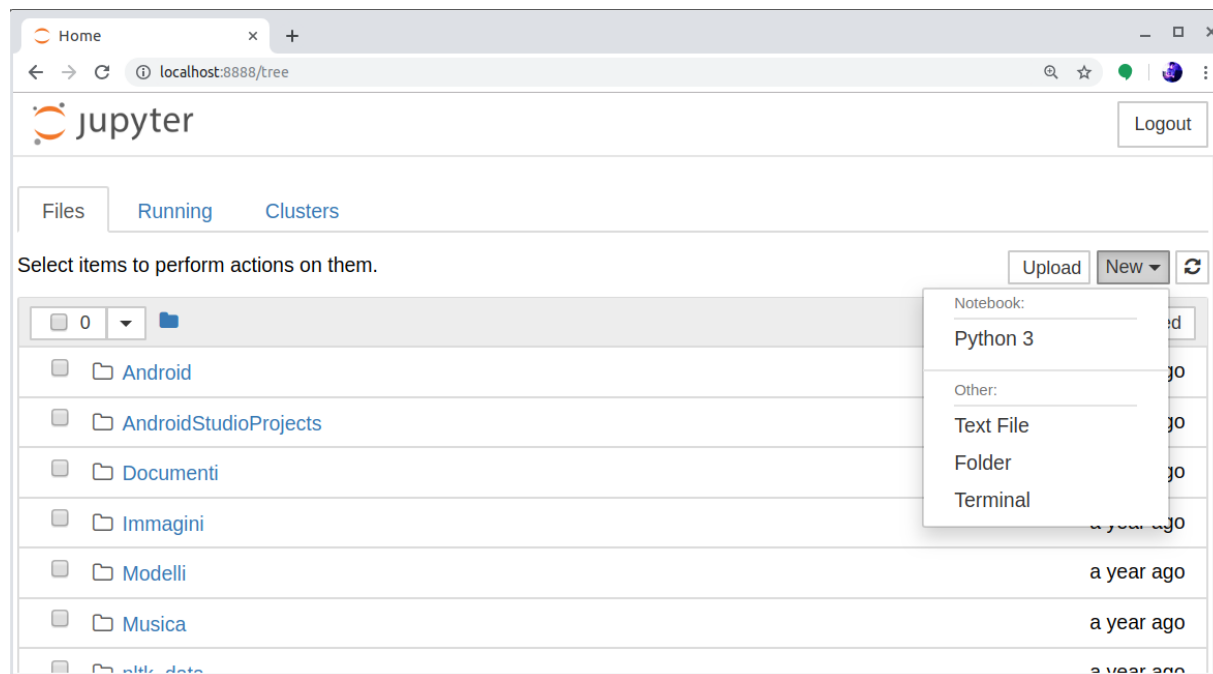
- Python language is provided with many useful libraries
- Install the following libraries with the **pip3** command:
 - pip3 install numpy
 - pip3 install pandas
 - pip3 install matplotlib
 - pip3 install scikit-learn

```
andrea@andrea
File Modifica Visualizza Cerca Terminale Aiuto
andrea@andrea:~$ pip3 install numpy
```



Installation on Ubuntu

- Test your installation by typing in your terminal:
 - `jupyter notebook`
- You should obtain in your browser a new Jupyter session





Installation on Windows

- Download Python from:
 - <https://www.python.org/> (Windows x86-64 executable installer)





Installation on Windows

- Open the command prompt and type:
 - pip3 install ipython
 - pip3 install jupyter
- These commands will install ipython and jupyter notebook

```
C:\Users\andrea >pip3 install ipython_
```



■ Installing libraries

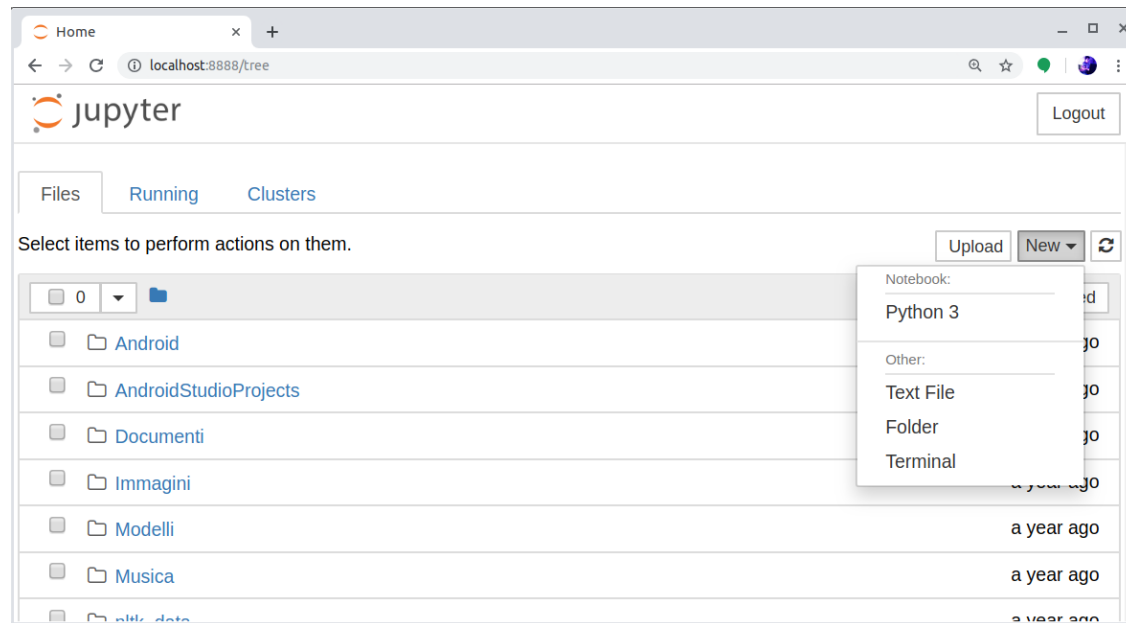
- Python language is provided with many useful libraries
- Install the following libraries with the **pip3** command (on your command prompt):
 - pip3 install numpy
 - pip3 install pandas
 - pip3 install matplotlib
 - pip3 install scikit-learn



Installation on Windows



- Test your installation by typing in your command prompt:
 - jupyter notebook
- You should obtain in your browser a new Jupyter session





- Anaconda installation (for both Windows and Ubuntu)
 - **Instead of** installing separately Python and libraries you can use Anaconda (it may download **many** files, but it provides an **easier** installation)
 - <https://www.anaconda.com/distribution/>
 - It will install Python3, iPython, Jupyter and many common Python packages for data science



ANACONDA[®]



- Open your Terminal app
- Install Command Line Tools (CLT) for Xcode
 - `$ xcode-select --install`
not needed if you already have Xcode
- Install Homebrew from <https://brew.sh>
 - It's the standard de-facto macOS package manager
 - The command below downloads and installs it

Install Homebrew

```
/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```



- Now, the main programs can be installed via **Homebrew** on your terminal:
 - `$ brew install python` (installs python3 and pip3)
 - `$ pip3 install jupyter` (installs jupyter and ipython)
you might need to restart the terminal to see the changes
- **Installing libraries**
 - Install the following libraries with the **pip3** command:
 - `$ pip3 install numpy`
 - `$ pip3 install pandas`
 - `$ pip3 install matplotlib`
 - `$ pip3 install scikit-learn`



- Additional hints
 - Many executables can be installed via Homebrew
 - `$ brew install wget`
 - You can search or have information about a program
 - `$ brew search <program-name>`
 - `$ brew info <program-name>`
 - Or list the installed ones
 - `$ brew list`
 - The Anaconda distribution can be installed via Homebrew
 - `$ brew cask install anaconda`