

- I) To run Python, you need first to install it. My suggestion is to download an all-in-one distribution as follows:
- a) Go to <https://www.anaconda.com/distribution>, click the download, and get Python 3.7 (or the latest version) with 64-Bit.
 - b) Install the program, then **Jupyter** Notebook will be available in the Window Programs (this is the editor, you create/edit files here and run them via it too)
 - c) **Spyder** will also be available, providing terminal to run or test commands (you can also run any Python programs, *.py, by using Spyder, but not the ones from Jupyter, *.ipynb, but the latter can be converted to *.py by saving the Jupyter file as *.py, then can run)
 - d) Type: %pwd in the Spyder console/terminal, to know the directory your Python files.
 - e) Copy all the Python files of this Data Analysis class into the same working directory;
 - f) Click the files (just uploaded) at the bottom, you will be able to read them.
 - g) To run a file, use the “Run” command at the top; it runs cell by cell.
 - h) Useful commands:
 - 1) To unlock a cell: Shift+Enter or Enter (when you cannot type in the cell)
 - 2) To find working directory: %pwd
 - 3) To clear output: click Kernel (above Run)
 - 4) To run the entire program: In Jupyter, Python runs the file cell by cell, if you click the “Run” icon. To run all cells at once, go to “kernel” and choose Restart & Run All
 - 5) To save file as *.py or .pdf: File->Download->Python (.py) [This is very important for “import” a Jupyter function as “import” works only for *.py files] ; pdf similar
 - 6) Undo: “Esc”, then “Ctrl + Z”
 - 7) Help: help(name)

II) To learn more on Python (optional, but encouraged), you may

1) check the tutorial:

<https://python.quantecon.org/> (an excellent place to learn, go over the site when you have time)

2) read

- a) Sundnes, J., 2020, Introduction to Scientific Programming with Python, Springer.
- b) Hans Petter Langtangen, 2016, A Primer on Scientific Programming with Python
- c) Brian Heinold, 2012, A Practical Introduction to Python Programming (free from the author’s web: <https://www.brianheinold.net/books.html> with solutions to HWs)

Remember: making mistakes in programming is for everyone! On debugging, read an additional book: “Think Python” by Allen B. Downey (<https://greenteapress.com/wp/think-python-2e/>, free source online). (there is a section on debugging in each chapter of the book). An helpful advice from an expert is:

debugging is time-consuming and it is normal to feel frustrated. Just be patient and you will figure out what goes wrong soon or later.