Installing Python

- Python is available on Linux, Windows and MacOS
- versions
  - Older version: 2.7
  - New version: 3.5+
- Download and install
  - Linux: Most cases pre-installed.
  - Windows and MacOS: https://www.python.org/downloads/

Write your first program

Compile your program

- If you are familier with other programming languages like c++, java, the compilation occurs in two stages.
- All these languages are high level language. It is easy for the humans to write and read a program in these languages.
- Computers only understand low level instructions e.g. in terms of binary tokens.
- There must be a bridge between us and the computers:
  Compiler » executable files
- interpreter: It translates only one statement of the program at a time.
  Advantage : Shows error at each line and easy to communicate
  disadvantage : Execution time is larger

What will we learn

- Python Data types: numeric, Dictionary, Boolean, set, sequence
- **numpy** array operations
- matrix operations using **scipy**
- scipy interpolation, integration, differentiation, regression
- file handling io
- plotting using matplotlib, seaborn or plotly
- python classes (OOPS)

https://www.geeksforgeeks.org/difference-between-compiler-and-interpreter/
https://docs.python.org/3/tutorial/