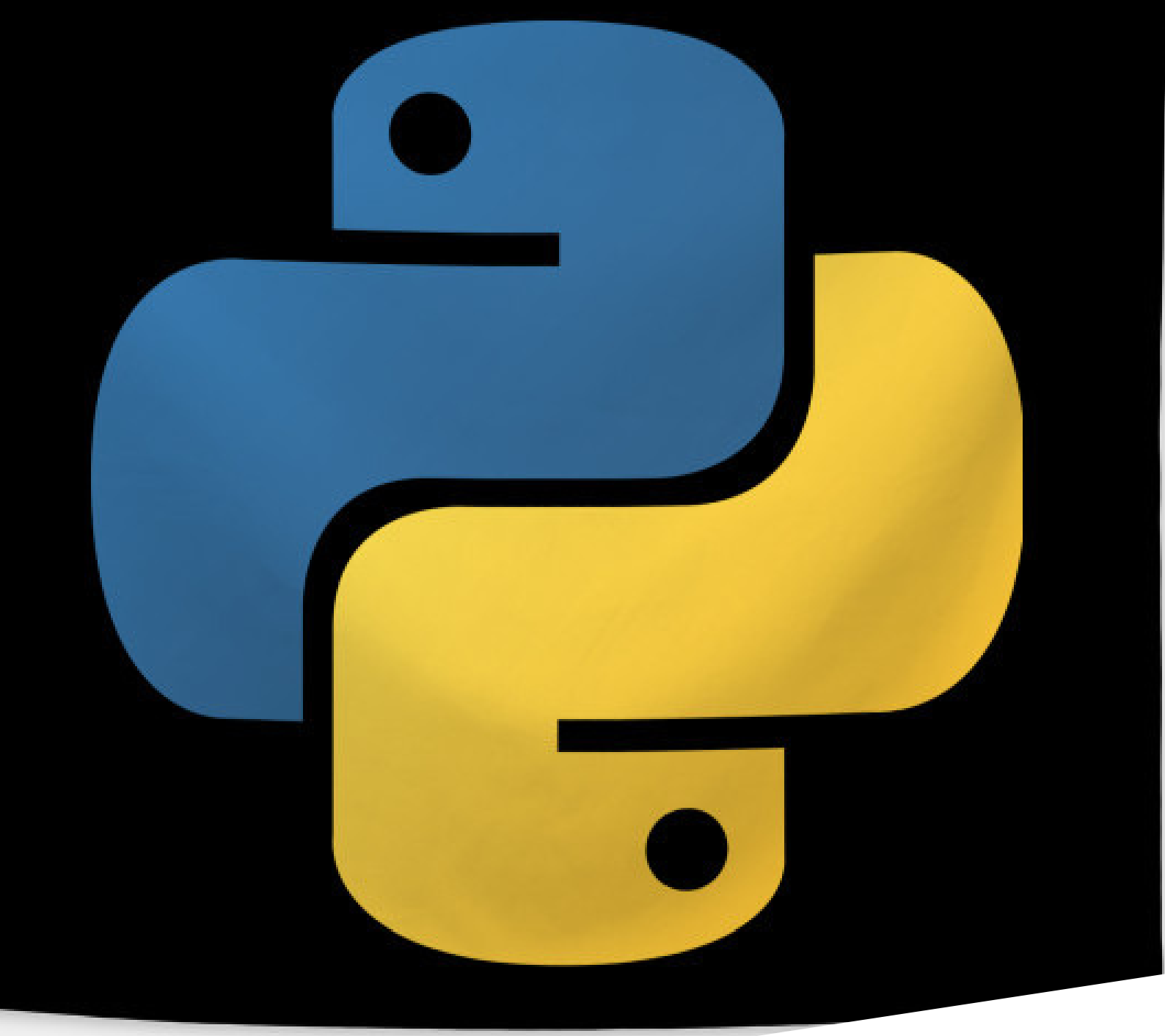


CodingShastra

PYTHON - I

JULY 2019 // PREPARED BY KUNAL AGGARWAL

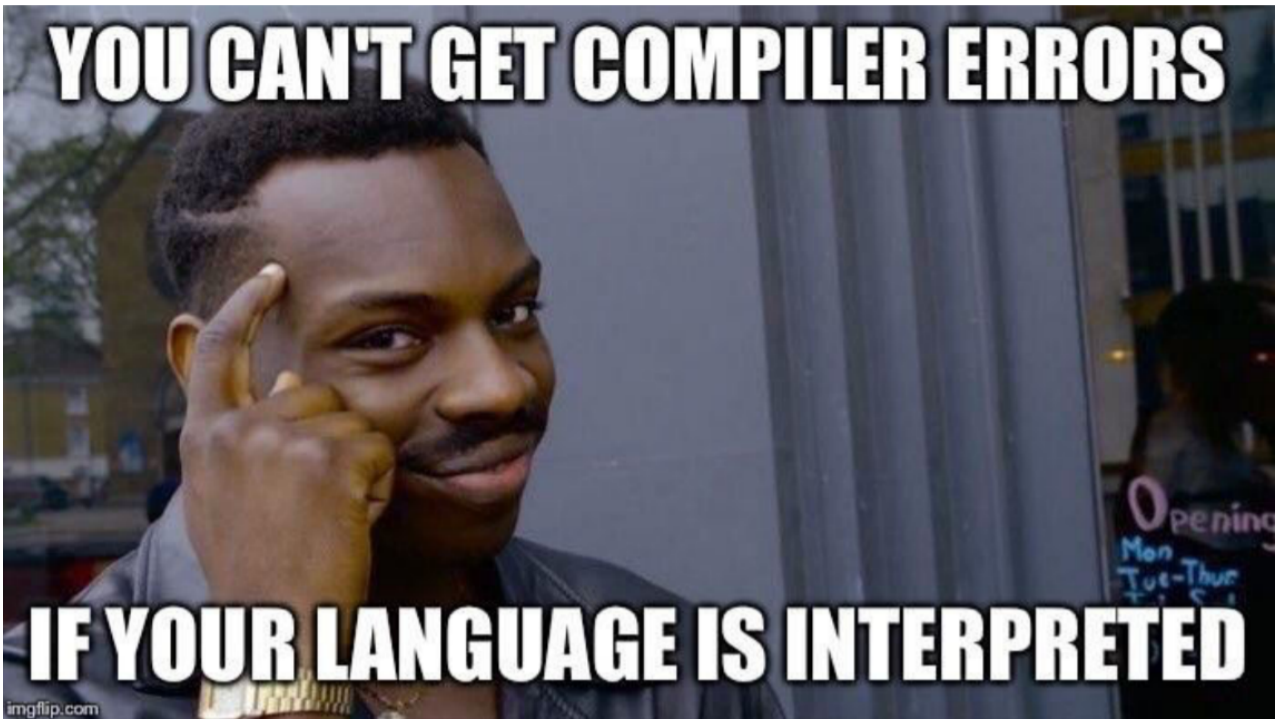
- Python is a widely used **general-purpose, high level programming language.**
- It was initially designed by **Guido van Rossum** in **1991** and developed by **Python Software Foundation.**
- It was mainly developed for emphasis on **code readability**, and its **syntax allows programmers to express concepts in fewer lines of code.**

- First released in 1991
- Python 2: 2000
- Python 3: 2008

FEATURES

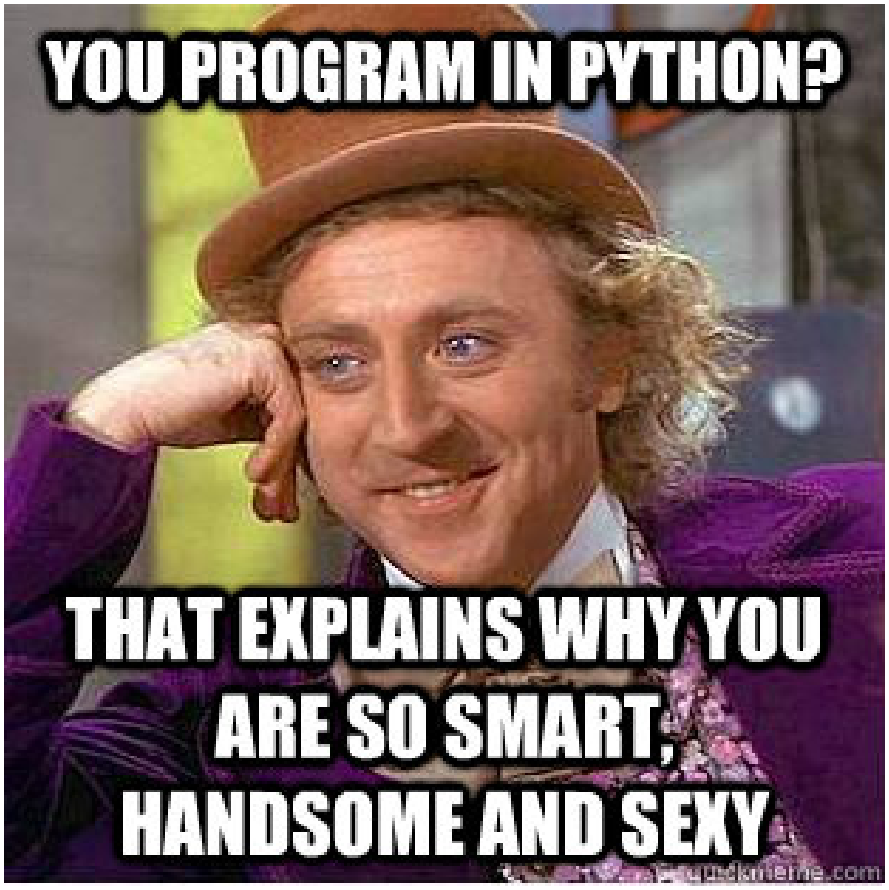
Interpreted :

- There are no separate compilation and execution steps like C and C++.
- Directly run the program from the source code.
- Internally, Python converts the source code into an intermediate form called bytecodes which is then translated into native language of specific computer to run it.



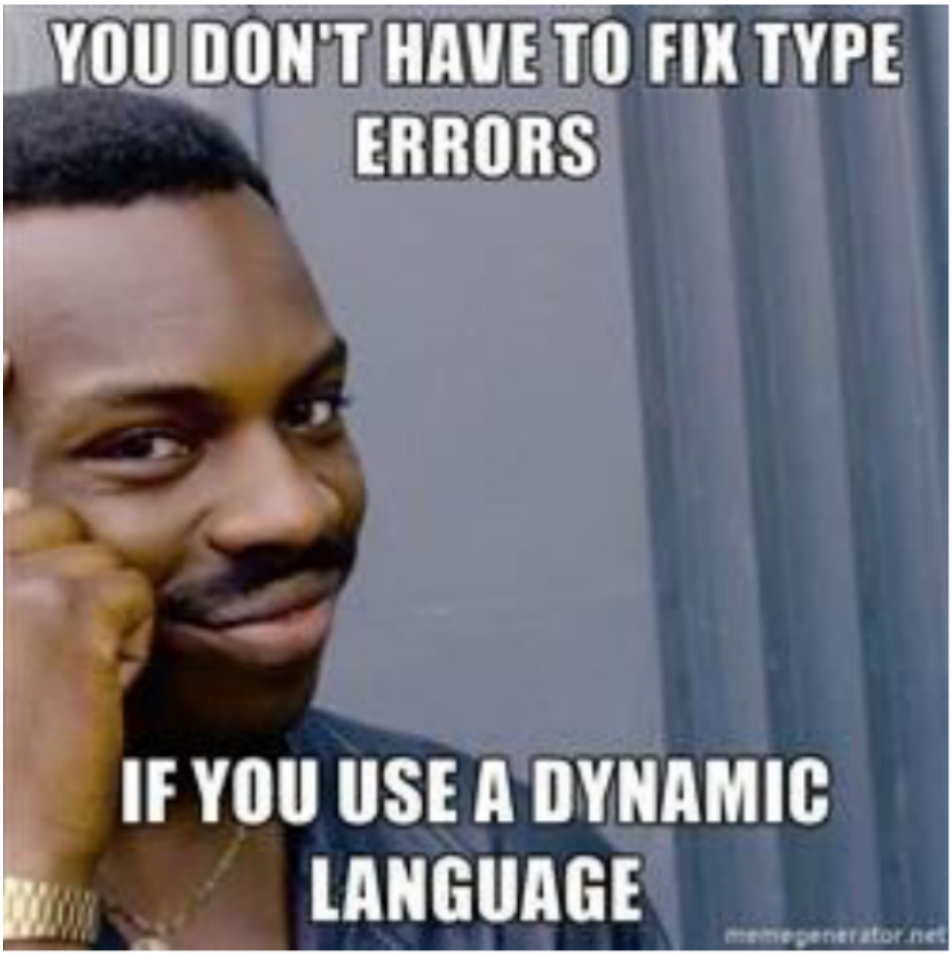
Simple & Easy to Learn :

- Python is a simple and minimalistic language.
- Reading a good Python program feels almost like reading English, although very strict English!
- This pseudo-code nature of Python is one of its greatest strengths.
- It allows you to concentrate on the solution to the problem rather than the language itself.



Dynamically typed :

- No need to declare anything.
- An assignment statement binds a name to an object, and the object can be of any type.
- No type casting required when using container objects.
- Execute a=3 , then a="PYTHON" . This won't give any error in Python unlike C/C++/JAVA which are Statically typed.



Portable:

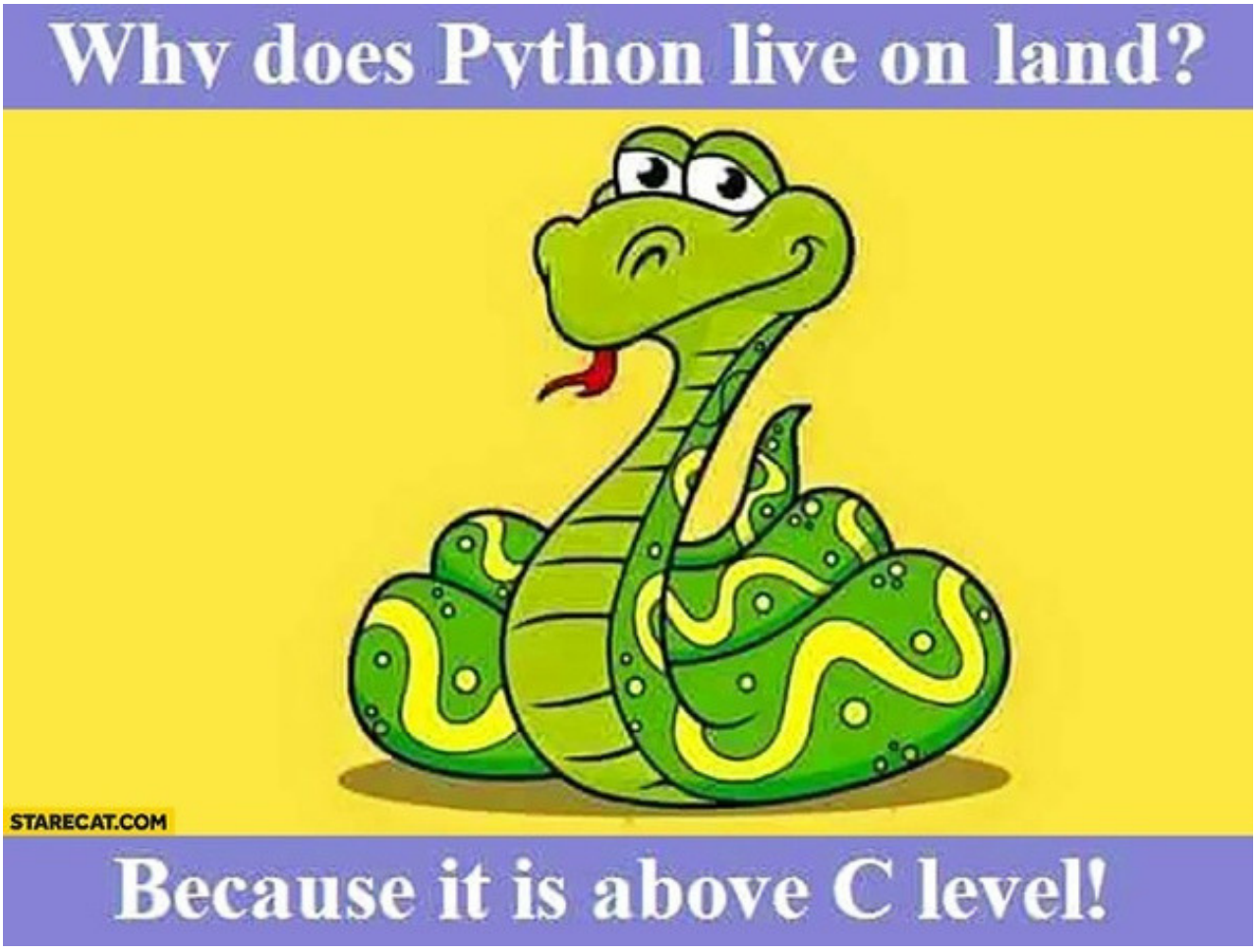
Embeddable:

- Python can be used within C/C++ program to give scripting capabilities for the program's users.
- Some of these scripts will be discussed in further classes.

Extensive libraries:

APPLICATIONS :

- Web development (frameworks like django and flask)
- Data analysis (scientific, numeric computing and data visualization)
- Desktop GUIs
- Python Scripts
- Machine Learning/Deep Learning



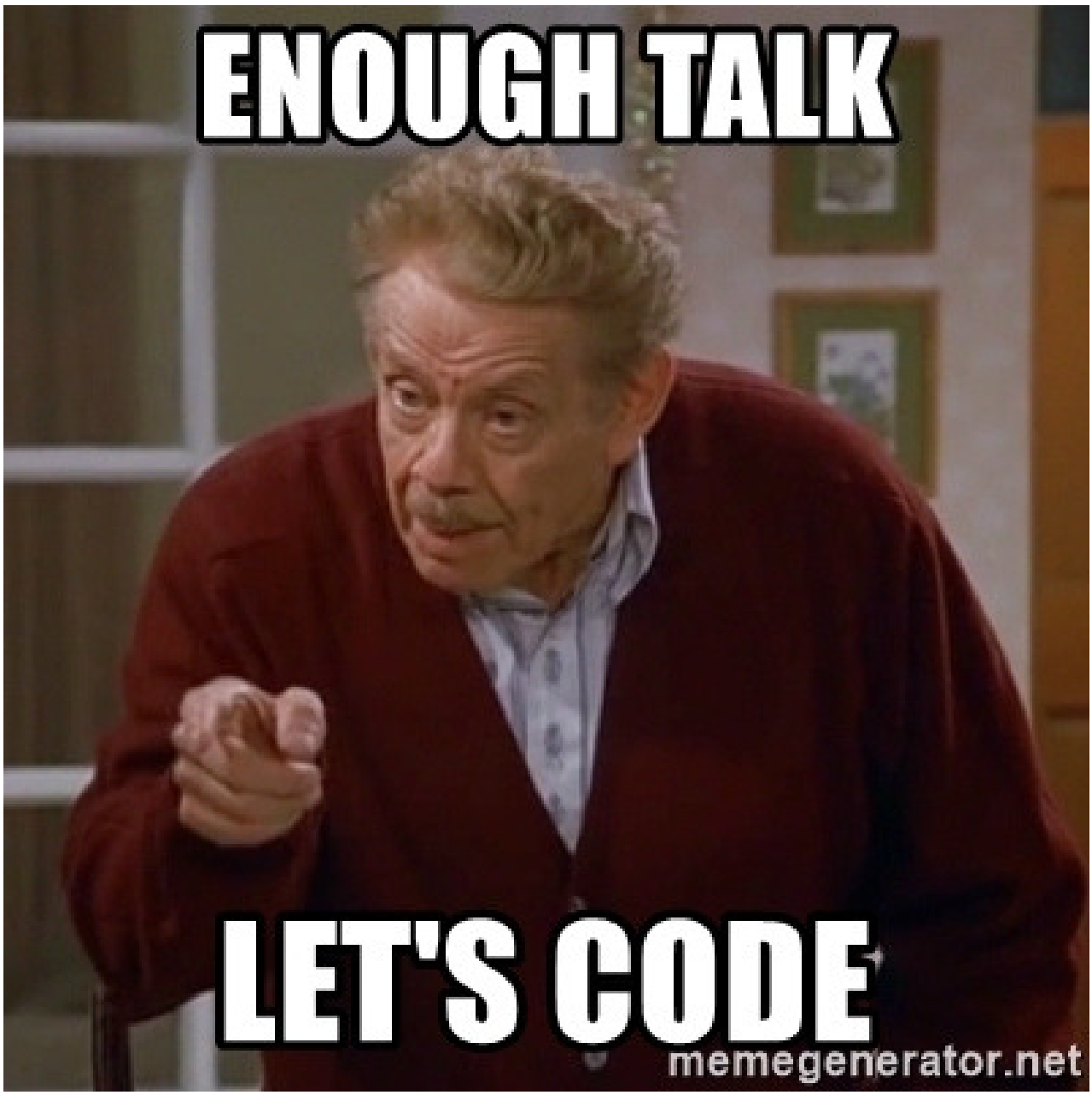
INSTALLATION :

Refer to the following link for Anaconda installation.

For Windows :-
https://docs.anaconda.com/anaconda/install/windows/

For macOS :-
https://docs.anaconda.com/anaconda/install/mac-os/

For Linux :-
https://docs.anaconda.com/anaconda/install/linux/


ENOUGH TALK
LET'S CODE
memegenerator.net