#### **Python History**

Python language is conceived in the year 1980.

The implementation of python language is started in the year 1989.

Python language implementation is done in one research center exists in Netherlands CWI.

Python language is implemented or developed in C Language.

Python language is developed to overcome the drawbacks of ABC language.

Python language is developed by Guido Van Rossum.

Python language is developed by using features of the following programming languages.

- 1. C → Procedural Oriented Programming
- 2. C++ → Object Oriented Programming
- 3. Modula7 → Modular Oriented Programming
- 4. Perl → Scripting Language

**Python** name is taken from a comic serial named "Monty **Python**'s Flying Circus"

First version of python is released in the year 1991.

Python language is a product of PSF (Python Software Foundation)

## **Python Versions**

Python Language comes in 3 versions.

Python 1 → Outdated

Python 2 → Outdated

Python 3.x  $\rightarrow$  3.0, 3.1, 3.2, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11

Python 3.11.4 is the current version of python

3 → Major Version

11 → Minor Version

4 → Micro Version

There is compatibility between versions 3.1 and 3.2.

There is no compatibility between python 2 and python 3

Python software can be downloaded from

www.python.org

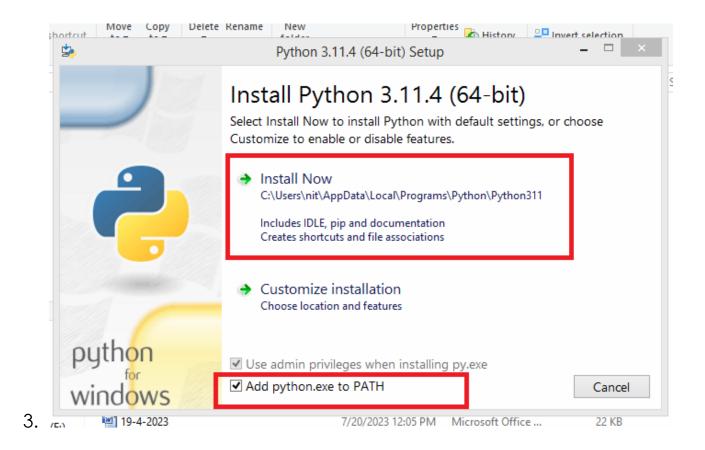
## Steps to download and install python software

1. Open www.python.org



## 2. Select python installer

2. 00.00	. , , , , , , ,					
package (ARM64)						
Windows installer (32 - bit)	Windows		9ec180db64c074e57bdcca8374e9ded6	24238000	SIG	.sigstore
Windows installer (64- bit)	Windows	Recommended	e4413bb7448cd13b437dffffba294ca0	25426160	SIG	.sigstore
Windows installer (ARM64)	Windows	Experimental	60785673d37c754ddceb5788b5e5baa9	24714240	SIG	.sigstore



#### How to verify python is available in system?

- 1. Open add/remove programs
- 2. Open command prompt → python –version

## **Python Software**

- 1. Editor/IDE → IDLE Integrated Development Learning Environment
- 2. Standard Libraries (Predefined Programs)
- 3. Python Shell (CLI)
- 4. Python Tools (Python Debugger, PIP,..)
- 5. Python Compiler
- 6. PVM (Python Virtual Machine)

## Third Party IDE's

- 1. PyCharm
- 2. Spyder

- 3. Jupiter
- 4. GoogleCollab
- 5. VSCODE

#### **Python Distribution**

Python Distribution is python software bundle, which consist of python software and application specific libraries and editors.

#### 1. Anaconda

- a. Python Software
- b. DS and Al Lib
- c. Editors PyCharm, Spyder, Jupiter
- 2. <u>ActiveState ActivePython</u> (commercial and community versions, including scientific computing modules)
- 3. <a href="mailto:python">pythonxy</a> (Scientific-oriented Python Distribution based on Qt and Spyder)
- 4. <u>winpython</u> (WinPython is a portable scientific Python distribution for Windows)
- 5. <u>Conceptive Python SDK</u> (targets business, desktop and database applications)
- 6. Enthought Canopy (a commercial distribution for scientific computing)
- 7. <u>PyIMSL Studio</u> (a commercial distribution for numerical analysis free for non-commercial use)
- 8. <u>Anaconda Python</u> (a full Python distribution for data management, analysis and visualization of large data sets)
- 9. <u>eGenix PyRun</u> (a portable Python runtime, complete with stdlib, frozen into a single 3.5MB 13MB executable file)

#### Python installed Directory

C:\Users\nit\AppData\Local\Programs\Python\Python311

# **Python Working Modes**

- 1. Interactive Mode
- 2. Scripting Mode/Programming Mode