

Python & Full Stack Python @ 5:00 PM (IST) by Mr.Satish GuptaDay-1  
<https://youtu.be/0RdZ-i5tjVw>Day-2 [https://youtu.be/XuD\\_tHMqDbI](https://youtu.be/XuD_tHMqDbI)Day-3  
<https://youtu.be/IBwuPoPEswM>Day-4 <https://youtu.be/ZBCAe39TYQo>

Telegram : [codewithsatishgupta](https://t.me/codewithsatishgupta)

Mailed :

Python Language comes in 3 versions.

1. Python1
2. Python2
3. Python3

1,2,3 are called major versions of python language.

There is no forward and backward compatibility these versions.

The programs writing in python 2 cannot run in python 3

Python 2 → 2.0,2.1,2.2,2.3,2.4,2.5,2.6,2.7

Python 3 → 3.0,3.1,3.2,3.3,3.4,.... 3.12

The current version of python is 3.12.4

3 major version

12 minor version

4 micro version

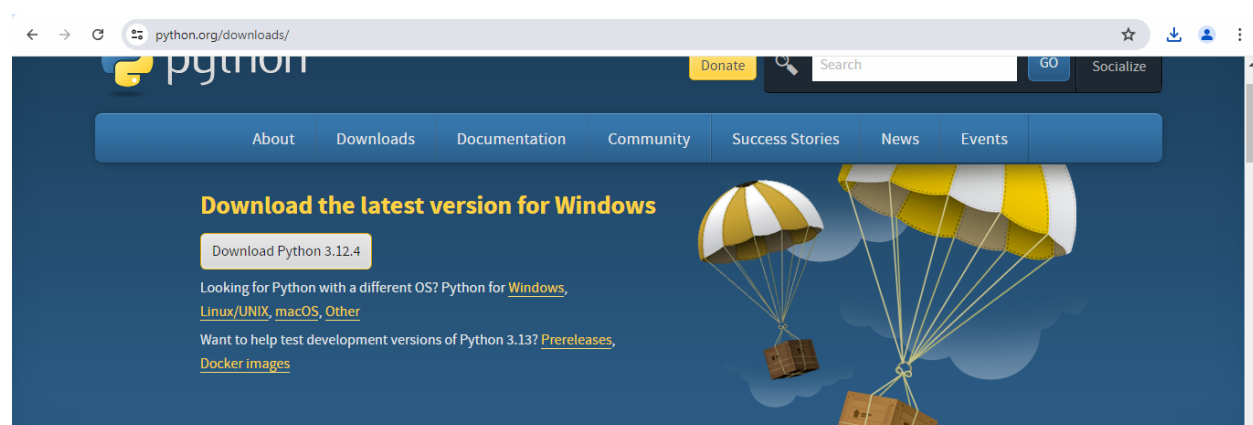
Micro version is called updated version minor version.

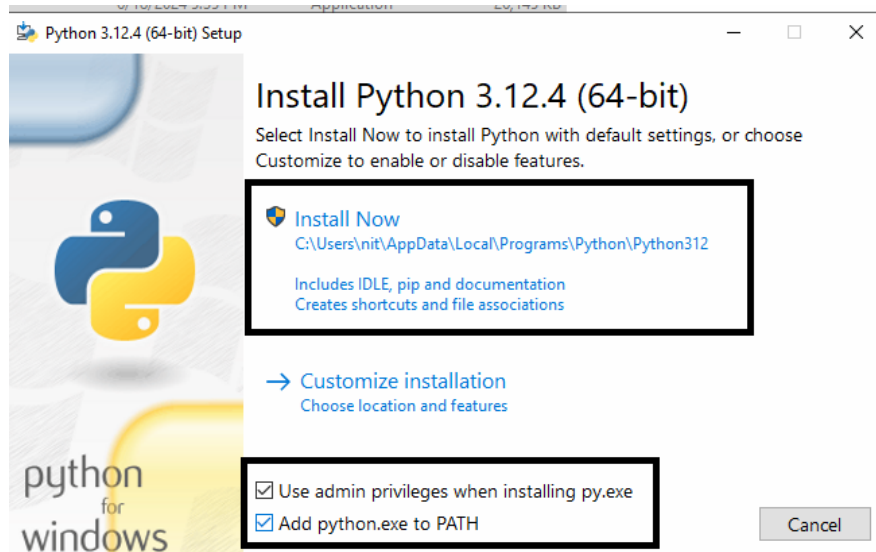
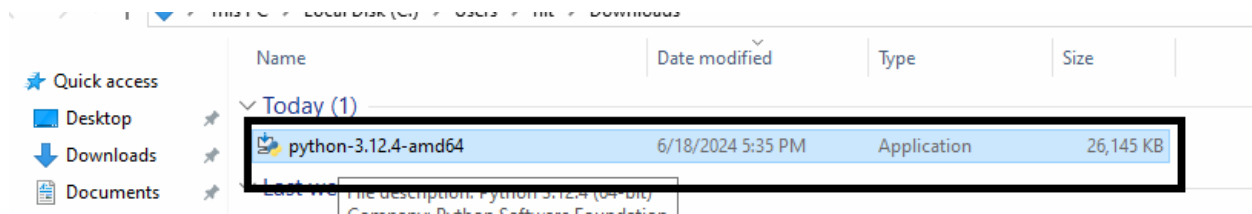
Python 1,2 are out dated and companies are not using.

Python software is free to download

[www.python.org](http://www.python.org)

<https://www.python.org/downloads/>





## Python software

1. Editor/IDE → Integrated Development Learning Environment  
 IDLE → Integrated Development Learning Environment
2. Compiler
3. PVM (Python Virtual Machine)
4. Standard Libraries (Predefined programs)
5. Tools

## Third party editor or IDE's

1. Pycharm
2. VScode
3. Spyder
4. Jupiter ( Data Science)
5. Google Collab (Data Science)

## Python Distributions

Python Distribution is nothing but python software bundle.

1. Python software
2. Application Specific Libraries

### 3. Editors

[ActiveState ActivePython](#) (commercial and community versions, including scientific computing modules)

[pythonxy](#) (Scientific-oriented Python Distribution based on Qt and Spyder)

[winpython](#) (WinPython is a portable scientific Python distribution for Windows)

[Conceptive Python SDK](#) (targets business, desktop and database applications)

[Enthought Canopy](#) (a commercial distribution for scientific computing)

[PyIMSL Studio](#) (a commercial distribution for numerical analysis – free for non-commercial use)

[Anaconda Python](#) (a full Python distribution for data management, analysis and visualization of large data sets)

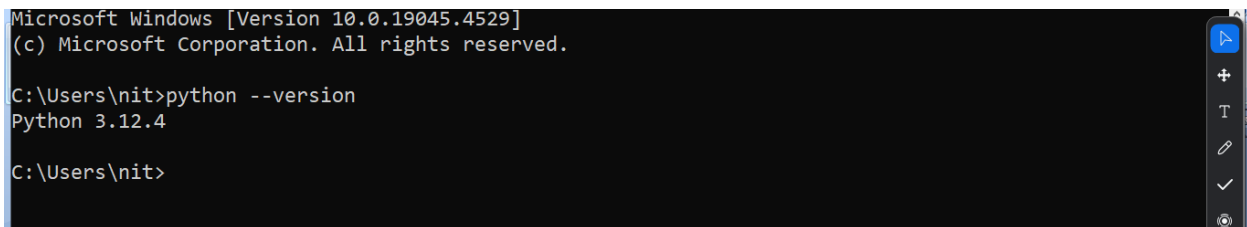
[eGenix PyRun](#) (a portable Python runtime, complete with stdlib, frozen into a single 3.5MB - 13MB executable file)

If you want to host and

#### How to verify python software installed or not?

1. Open command prompt

Search → CMD – Command Prompt



```
Microsoft Windows [Version 10.0.19045.4529]
(c) Microsoft Corporation. All rights reserved.

C:\Users\nit>python --version
Python 3.12.4

C:\Users\nit>
```

2. Search → IDLE

#### Python working modes

Python developer work with python in 2 modes

1. Interactive mode
2. Scripting mode/programming mode

#### Interactive mode

In interactive mode python developer work with python shell.

Python shell is called command line utility, where python developer type command. Python shell is called command line interpreter.

Interactive mode is nothing but single line command line interface.

```
Python 3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.194
32
Type "help", "copyright", "credits" or "license()" for more information.
>>> 10+20
30
>>> import math
>>> math.sqrt(9)
3.0
>>>
```

**REPL Tool**

- R --> READ**
- E --> Evaluate**
- P --> Print**
- L --> Loop**

**Prompt >>>**  
**Chevrons Prompt**

## Programming mode/scripting mode

Python program is a file/module which contains set of instructions which are executed by computer. Every python program/file having extension .py

1. Open idle
2. Select → File → New File

```
print("Welcome to Python Programming Language")
```

3. File → Save → test2.py
4. Run → Run Module

## Python Language Fundamentals

1. Character set of python
2. Tokens of Python
3. Input/Output statements

## **Character set of python**

Character set defines encoding and decoding standards.

1. ASCII → 256
2. UNICODE → 1,00,000