**Python** is a very popular general-purpose interpreted, interactive, object-oriented, and high-level programming language. Python is dynamically-typed and garbage-collected programming language.

Python is a high-level, interpreted, and general-purpose dynamic programming language that focuses on code readability.

advantages of learning Python:

* **Python is Interpreted**
* **Python is Interactive**
* **Python is Object-Oriented**

## Characteristics of Python

* **It supports functional and structured programming methods as well as OOP.**
* **It can be used as a scripting language or can be compiled to byte-code for building large applications.**
* **It provides very high-level dynamic data types and supports dynamic type checking.**
* **It supports automatic garbage collection.**
* **It can be easily integrated with C, C++, COM, ActiveX, CORBA, and Java.**

**Python:**

Interpreter based

Dynamic typing

Highly portable

Automatic

Simple

Slower execution

Machine learning, web applications

# **Python 3**

1. Variables: x=3
2. Data types: several built-in data types, including integers, floats, strings, booleans, lists, tuples, and dictionaries.
3. Operators: supports a variety of operators, including arithmetic operators (+, -, \*, /), comparison operators (>, <, ==, !=), and logical operators (and, or, not).
4. Control flow statements: supports several control flow statements, including if-else statements, for loops, and while loops.
5. Functions: def my\_function(x)