

## • What is Python?

- Python is high-level, interpreted, general-purpose programming language.

- Python is dynamically-typed and garbage collected. It supports multiple programming paradigm, including structured (particularly procedure), object-oriented & function programming.

## • Features of python.

### ① Easy to learn and use-

Python is easy to learn as compared to other programming languages. ~~It~~ It is same as English language. There is no use of semicolon & curly bracket.

### ② Portable / Cross platform language

Python is portable that means we can run it equally on different platform like windows, linux, UNIX.

### ③ Free and Open Source.

Python is freely available for everyone. Anyone can contribute download its source code without paying any cost.

### ④ Object Oriented Programming.

It supports concepts of classes and objects. It also supports inheritance, polymorphism, & encapsulation, etc. The OOP helps to programmer to write reusable code and develop applications in less code.

### ⑤ Expressive language

It perform complex task using a few lines of code as compared to Java, C, C++.

### ⑥ Interpreted language

It can be executed one line at a time.

### ⑦ Extensible

There is no need of compilation. It convert the program into byte code & any platform can use byte code

### ⑧ GUI programming Support

- It mostly used in GUI. ~~GUI~~

- Graphics User interface is use for developing Desktop application.

### ⑨ Dynamic Memory Allocation.

- There is no need to specify the data-type of the variable. We can assign some value to variable, it automatically allocate the memory to variable at runtime.

### • Open Source terminology

- Open source refers to software that's free to public.

- It does not ~~have~~ any restriction or any condition are required.

- Including the source code, the software as well is free available to users, even the copies can be distributed by users freely & are freely used, modified with no prior permission.

- Freeware, Linux, MySQL, Hypertext Preprocessor, Python, UNICODE.