

Python Programming

Features

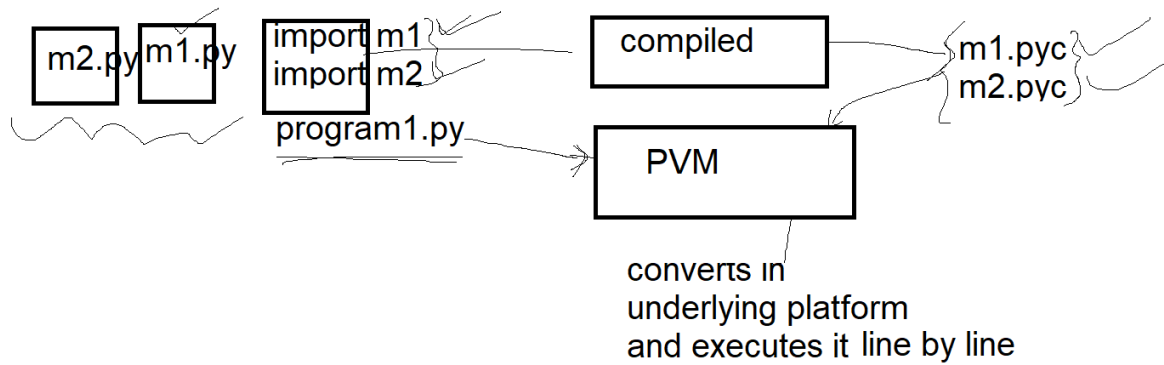
- **Platform independent** → If we write a program in one operating system, and if we can run it on any other operating system, without making any changes. If we write code on windows OS, and if I can run it on Linux as well as on mac machine then it is called as Platform independent.
- Machine independent → If the program is hardware independent, then it is called as machine independent.
- Easy to learn → Its footprint is very small, no pointers are there, and the size of code is smaller as compared to other languages
- Easy to read the program → Indentation of the code is necessary, without indentation your code will not run
- Garbage collector is there → Unused memory clearing will be done by garbage collector, so there is no problem of memory leakage.
- It supports Object oriented programming.
- Network programming is also possible → since in python you may write socket programming, so you may write programs like chatbots.
- It supports multithreading and multiprocessing.
- GUI programming is also possible → QtPy or tkinter that supports GUI programming
- Data base connectivity is also possible, you may connect to mysql, oracle or mongodb, Sqlite
- Modular programming is also possible.

Install python

1. Download python latest version from
<https://www.python.org/downloads/>
2. Run the msi file, follow the step by step process to install it
3. It will be installed at following path
C:\Users\anilk\AppData\Local\Programs\Python
4. To check python version
Open cmd prompt and use following command
Python -version
5. To start python Shell to test single command, use
C:/system32>python
>>>

Characteristics

1. Python is dynamically typed, and java is statically typed
A=10 A=" Kishori"
2. Python is interpreter → it converts the code line by line and it executes line by line.
3. In python modules can be saved in compiled version



1. To execute program in cmd
D:\pythondemos>python hello.py
2. To store compiled version, as byte code
D:\pythondemos>python -m hello.py

In python

Basic data type are:-

1. Number
2. String

Operators are.

Arithmetic operators

+, -, *, /, //(integer division)

++ and -- is not there.

Logical operators

and, or, not

Relational operators

>, <, >=, <=, ==, !=

Bitwise operators

&, |, ~, >>, <<

Walrus operator(it is added in 3.8)

:=

n=10 If n>20:	If n=10	If ((n:=10)>20)
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If $n=10$