

1.Introduction To Python

Python is a High-level,interpreted,Object oriented programming language.

>>It was invented by Guido Van Rossum in 1991.

Features Of Python :-

>>1.Clean and Readable code :- Python code is easy to write and understand because it uses simple and clear language.

>>2.Indentation for Block :- Python uses spaces and tabs to organize code into blocks. This makes code look neat and helps you see where different parts of the code begin and end.

>>3.No need to declare variables :- In python we don't need to tell the computers what kind of information a variable will hold before using it.Python figures it out.

>>4.Flexible Datatypes :- Python can handle different datatypes of data,like numbers,text, and more.We don't need to worry much about the specific datatype; Python adapts to it.

>>5.Reduced development Time :- Python often allows developers to write code that's 2 to 10 times shorter than equivalent code in languages like c,c++, or Java.This means we can build programs faster.

>>6.Improved Programming Maintenance :- Python code is known for its readability and clarity.This makes it easier to understand and maintain,Which is essential when you need to update or fix code in the future.

>>7.Less Training Required :- Python is considered an easy language to learn.Its simplicity and straightforward syntax mean you can become proficient in Python with less training compared to more complex language.

Programming Style :-

>>File Format :- Python programs are written in text files that typically ends with ".py". When you see a ".py" file,you can tell its a python program.

>>Namespaces :- Every Python Module (which is like a file) has its own space for storing variables and functions.Think of it as seperate boxes for each module to keep things organized.

>>Global Namespaces :- Inside a python module , there is a special space called the global namespace where you can put variables and functions that can be used throughout the module.

>>Differentiating programs and modules :- Wheather a .py file is considered a program or a module depends on how you use it :

>>If you run a ".py" file directly , like clicking on it, it is called as a program or a script

>>if you use ".py" file in another python file using the "import" statement,it's called a Module.

Differentiate between Python2 and Python 3 :-

1.)Print Statement :-

>>Python 2 - print "Hello" python3 - print("Hello")