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Python

🡪Python was developed by Guido Van Russum in late 1980’s.

🡪As Guido Van Rossum is a big fan of a show called “Monty Python’s Flying Circus”, he named it as

python.

🡪It is high level language. It is very easy to learn and use. Python is free i.e., it can be used by anyone. It is an open source software.

🡪Python is a scripting language because of its scalable interpreter.

🡪Python is interpreted, interactive and object oriented language.

🡪Python is portable, Extendable and scalable.

🡪Python supports functional and structured programming methods as well as OOP.

🡪Python supports automatic garbage collector.

🡪Python can be easily integrated with C, C++ and JAVA.

🡪Python can be used as a calculator.

🡪Python is used in GUI, Data science, Game development, Image processing, MS-office, Scientific and Numeric, etc. Python web development frameworks are, Django, Flask, Tactic, etc.

🡪Python has libraries like Numpy, Scipy, Matplotlib, PyQt4, etc.

🡪Python is used in YouTube, Nokia, Google, NASA, Dropbox, Yahoo, Redhat, etc.

🡪There will be no main() function, no semi columns in python. The string that is written in between single quotations or double quotations is printed.

🡪Print(“hello world”) or print(‘hello world’)

🡪Here are the escape sequences used with print instruction.

* \\ 🡪 Backslash(\)
* \’ 🡪 single quote(‘) and \’’🡪double quote(“)
* \n🡪ASCII Linefeed(LF)
* \t🡪ASCII Horizontal Tab(TAB)

🡪Python has 5 standard data types. They are

* Numbers(Integers and Float)
* String, List(Array)
* Tuple(Constant Array)
* Dictionary

Variable number types

* Integer(Whole number)
* Float(Decimal Point Numbers)
* Character/String(ASCII format)
* Boolean(True or False)

🡪Numbers are immutable objects and cannot be changed.

🡪There are three build in data types for numbers in python3. They are int, float, imaginary numbers.

🡪The common number functions in python are, int(x), float(x), abs(x), cmp(x,y), exp(x)

, log(x), pow(x,y) and sqrt(x).

🡪There is no declaration of variables in Python.

Eg: a=1

b=45

🡪In python, declared variables can be updated.

Eg : x=1

X= ”abcd”

🡪Many variables can be assigned to a single value in a single line as well as it also assign multiple values to multiple variables in a single line

Eg: a=b=c=14

a=b=c=1,’abc’,6

🡪To get the type of what we have given as input, we have a function in python to know the type of input weather it is int, float, str or bool.

The function is type()

🡪To delete any variable, we have a function called as del()

🡪Python uses interpreter to run the code. Interpreter reads code line by line. It is a slow process.

🡪In Interpreter, if code contains any error, then the code will be run partially up to that error line of code. The statements before the error line of code will be executed successfully.

🡪To take any input in python, we use input() function And that function is assigned to a variable. Eg:a=input()

🡪Python version 1 is obsolete now. There is only some difference in between version 2 and version 3. Everyone is using version 3. But still we can use version 2.