Tutorial 1

What is Python

Python is a general purpose, dynamic, high-level, and interpreted programming language. It supports Object Oriented programming approach to develop applications. It is simple and easy to learn and provides lots of high-level data structures.

Why learn Python?

* Easy to use and Learn
* Expressive Language
* Interpreted Language
* Object-Oriented Language
* Open Source Language
* Extensible
* Learn Standard Library
* GUI Programming Support
* Integrated
* Embeddable
* Dynamic Memory Allocation
* Wide Range of Libraries and Frameworks

Where is Python used?

* Data Science
* Date Mining
* Desktop Applications
* Console-based Applications
* Mobile Applications
* Software Development
* Artificial Intelligence
* Web Applications
* Enterprise Applications
* 3D CAD Applications
* Machine Learning
* Computer Vision or Image Processing Applications.
* speech Recognitions

Tutorial 2

Hellow World Program

print("hellow World!")

Print function

* The Python print () method is used to print a given message to the screen .
* Print function is In-built function

Tutorial3

Variable

* Variable is a type of container .It stores the data .data maybe in the form of int ,char ,float ,double ,bool ,and so on .
* Python variable is also known as an identifier.
* In Python, we don't need to specify the type of variable because Python is smart enough to get variable type 😂.
* Python is a case sensitive .that means ,

Suppose you have two variable name Abhay and abhay both are different variable but pronunciation is same .

Rule of define variable name

* All the characters except the first character may be an alphabet of lower-case(a-z), upper-case (A-Z), underscore, or digit (0-9).
* Identifier name must not contain any white-space, or special character (!, @, #, %, ^, &, \*).
* Identifier name must not be similar to any keyword defined in the language.

type() In-built function

The type() function is used to **get the type of an object**.

Let me explain you with an example suppose you have a variable

Num =234

And you want to get the ,what is the data-type of this variable then you can directly go for -----

***type(Num)***

Multiple assignment

a=b=40

abhay=Abhay=234.34

a,b=40,20

Delete a variable

del <variable\_name>

example:

del num1 ,now here num1 is the variable name .

tutorial 4

Datatypes

Variables can hold values, and every value has a data-type.In python , we do not need to define the type of the variable while declaring it

Example : a=5

variable **a** holds integer 5 and we did not define its type. interpreter will automatically interpret variables **a** as an integer type.

For check type of variable **a** datatype then you will write **type(a).**

a=293

b="Abhay singh"

c = 37.3432

print(type(a))

print(type(b))

print(type(c))

Different types of datatypes in python

1. Int 23 , 2,10
2. Float 2.3, 343.3423, 3.243 , 2.0000, 0.02
3. Complex number 2+3j , 4+2j
4. List [2,3,43,43,23,”abhay”,True]
5. Tuple (2,34,3)
6. Boolean True ,False
7. String “abhay”,’ram’ ,
8. Set {2,34,4343,2,”abhay”}
9. Dictionary {

1:”abhay”,

2:”ravi”,

3: “Kishan”

}

Tutorial 5

**Type conversion and type casting of datatype in python**

1. Implicit
2. Explicit

# type conversion

a=12

float x

x=y

print(x)

# type casting

a=293

af=float(a)

print(a , af)

print(type(a),type(af)) # int float

b="1234"

bi=int(b)

print(b , bi)

print(type(a),type(af)) #str int

boo=True

booi=int(boo)

print(boo,booi)

print(type(boo),type(booi))  # bool ,int

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