Python Programming

RGM College of Engineering & Technology (Autonomous)

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PYTHON LANGUAGE FUNDAMENTALS-15

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Learning Mantra

If you really strong in the basics, then remaining things will become so easy.

Agenda:

1. Python Data Types : None

2. Escape characters, Comments and Constants

Python Data Types : None

❑ None means Nothing (or) No value associated.

❑ **In Python, there are some situations, where, if the value is not available, then to handle such type of cases None introduced.**

❑ It is something like null value in Java.

❑ To make an object eligible for garbage collection, we can use None type.

Python Data Types : None

Eg:

def f1():

    print("Hello")   # Here, 'f1()' function is not going to return any value

x = f1()

print(x)

Output:

Hello

None

- ❑ In the above code, If the function won't return any statement, then how you can handle such situation is, internally it is going to represent None.

Python Data Types : None

❑ **None** is also an object in Python.

Eg:

a = None   ➜ 'a' is not pointing any value

print(id(a))   ➜140721283812576

print(type(a))   ➜<class 'NoneType'>

Python Data Types : None

How many None objects are there in Python?

❑ Through out Python, only one None object is available.

❑ If you are using any number of references to None, all the references are pointing

to the same object only.

Python Data Types : None

Eg:

a = None

b = None

c = None

def f1():

      pass   ➔ Empty body of a function represented using 'pass' statement

d = f1()   ➔ 'd' internally contains None only.

print(id(a))   ➔140721283812576

print(id(b))   ➔140721283812576

print(id(c))   ➔140721283812576

print(id(d))   ➔140721283812576

Escape characters, Comments and Constants

Escape Characters:

❑ In String literals we can use escape characters to associate a special meaning.

The following are various important escape characters in Python:

1. \n ➔New Line

2. \t ➔Horizontal tab

3. \r ➔Carriage Return (suppose, in a line currently cursor is locating at some place,

   We want to move it to the beginning of the same line, we go for carriage return)

4. \b ➔Back space

5. \f ➔Form Feed (to go to next page)

6. \v ➔Vertical tab

7. \' ➔Single quote

8. \" ➔Double quote

9. \\ ➔back slash symbol

Escape characters, Comments and Constants

Eg:

print("RGM college")   ➜RGM college

print("RGM\tcollege")   ➜RGM   college

print("RGM\ncollege")   ➜ RGM

                        ➜college

print('This is \' symbol')   ➜This is ' symbol

print('This is \" symbol')   ➜This is " symbol

print('This is \\ symbol')   ➜This is \ symbol

Escape characters, Comments and Constants

Comments

- In any programming language, Comments are nothing but non-executable statements, which are used to improve the readability and understandability of the program.

- // single line comment in java

- /* abc def

  -------- Multiline comments in Java or C

  */

- Usage of comments in any programming language is a good programming habit.

Escape characters, Comments and Constants

Single line comment in Python

❑ '#' used for single line comments in python programming.

Multiline comments:

❑ Multi line comments are not available in Python.

❑ If you have multiple lines are there to comment, use '#' at every line.

Eg:

#print('This a comment, it won't be executed by PVM)

#print('This is \\ symbol')

Escape characters, Comments and Constants

Constants in Python:

❑ Constants concept is not applicable in Python.

❑ But it is convention to use only uppercase characters if we don't want to change

value.

For example, MAX_VALUE=10

❑ It is just convention but we can change the value.

Any question?

If you try to practice programs yourself, then you will learn many things automatically

Spend few minutes and then enjoy the study