

# Python

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June 10, 2021

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## 0.1 Introduction

Reference: edureka!

HI, it is a great time to learn python programming. Before we began, let's talk about our agenda for today. We will give you a guided way of becoming a python developer.

1. Comments
2. Variable
3. Operators
4. Data types
5. Loop
6. Libraries
7. File Handling and Functions
8. Web developing and Web Scraping

### 0.1.1 Introduction by Mosh

Python is an interpreted language. An interpreter basically a program that converts the Human code to machine code. Python is implemented by C. We download default implementation of python from python.org

## 0.2 Comment

Python comment is oneline comment mode and this is written adding a before hash tag.

e.g. : `#This is a python comment.`

## 0.3 Variable

Let's continue this series on **PYTHON**.

Variables are a special container that stores value. In python, "Variable is Variable". So no need to specify primary stage declaration of type.

### 0.3.1 Value Assignment

Syntax: *variable\_name = value*

Equal sign (=) is used to assign values to the variable.

### 0.3.2 Value changing

First we assign 2 to the variable  $x$  and then assign 9 to the  $x$ . So, present value of  $x$  is 9.  $x = 2$

$x9$

Now,  $x = 9$ .

If we want to access output of previous operation, use underscore (.). This means output of previous operation.

e.g. :  $10 + x$

$= 19$

$y = 2$

$- + y$

$= 21$

### 0.3.3 String Variable

String concatenation in Python is same as C++. Use + sign to concatenate.

Declaring string variable:

Syntax: `variable_name='Name'`

e.g. : `platform = 'YouTube'`

IN: `platform[0]`

OP: 'Y'

Normally in computer, counting always starts with 0.

IN: `platform[1:4]`

OP: ouT

That means, first one is starting index, second-one is before ending index.

Let's use `len()` function for outcome the length of the string variable.

IN: `len(platform)`

OP: 7

It returns an integer, size of platform.

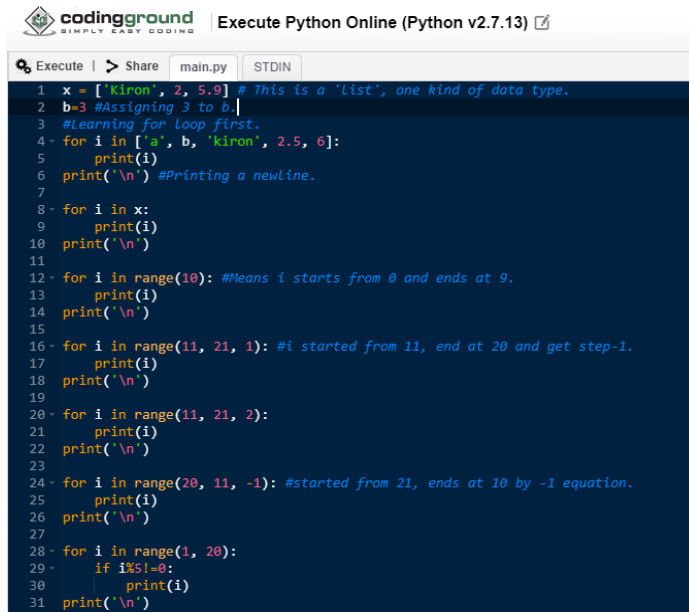
**Fourth tutorial over.**

## 0.4 Loop

### 0.4.1 For Loop

Now we will talk about `for` loop.

We can write `if` inside a `for`. If we have `if` inside a `for`, then we have `for` inside a `for`.



```
1 x = ['Kiron', 2, 5.9] # This is a 'list', one kind of data type.
2 b=3 #Assigning 3 to b
3 #Learning for loop first.
4 for i in ['a', b, 'kiron', 2.5, 6]:
5     print(i)
6     print('\n') #Printing a newline.
7
8 for i in x:
9     print(i)
10    print('\n')
11
12 for i in range(10): #Means i starts from 0 and ends at 9.
13     print(i)
14    print('\n')
15
16 for i in range(11, 21, 1): #i started from 11, end at 20 and get step-1.
17     print(i)
18    print('\n')
19
20 for i in range(11, 21, 2):
21     print(i)
22    print('\n')
23
24 for i in range(20, 11, -1): #started from 21, ends at 10 by -1 equation.
25     print(i)
26    print('\n')
27
28 for i in range(1, 20):
29     if i%5!=0:
30         print(i)
31    print('\n')
```

List is a great kind of data type in Python. Here 'x' is a list variable. We will discuss about it later.

## 0.5 Functions

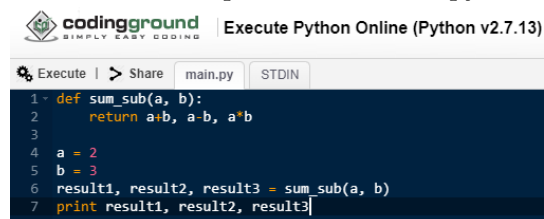
In python, user-defined functions are starts with "def" keyword.

```
1 def fun_name():
2     print("Kiron")
3
4 fun_name() #Calling the function.
```

Output: Kiron

### 0.5.1 Multiple return value

This is how we return multiple values from a python "def"



```
1 def sum_sub(a, b):
2     return a+b, a-b, a*b
3
4 a = 2
5 b = 3
6 result1, result2, result3 = sum_sub(a, b)
7 print result1, result2, result3
```

Output: 5, -1, 6