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| **Date:** | **20-May-2020** | **Name:** | **Varun G Shetty** |
| **Course:** | **Python** | **USN:** | **4AL17EC093** |
| **Topic:** | **1.fuctions in python**  **2.methods in python** | **Semester & Section:** | **6th & ‘B’** |
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**REPORT:**

**Functions and methods in python:**

* A function is a set of statements that take inputs, do some specific computation and produces output.
* The idea is to put some commonly or repeatedly done task together and make a function, so that instead of writing the same code again and again for different inputs, we can call the function.
* Python provides built-in functions like print(), etc. but we can also create your own functions. These functions are called user-defined functions.

**Programming example:**

# A simple Python function to check

* # whether x is even or odd

def evenOdd( x ):

if (x % 2 == 0):

print "even"

else:

print "odd"

# Driver code

evenOdd(2)

evenOdd(3)

**output:**

even

odd

**pass by reference in python:**

* One important thing to note is, in Python every variable name is a reference. When we pass a variable to a function, a new reference to the object is created. Parameter passing in Python is same as reference passing in Java.

**Programming examples:**

# Here x is a new reference to same list lst

def myFun(x):

x[0] = 20

# Driver Code (Note that lst is modified

# after function call.

lst = [10, 11, 12, 13, 14, 15]

myFun(lst);

print(lst)

**output:**

[20, 11, 12, 13, 14, 15]

* When we pass a reference and change the received reference to something else, the connection between passed and received parameter is broken.

**Programming examples:**

def myFun(x):

# After below line link of x with previous

# object gets broken. A new object is assigned

# to x.

x = [20, 30, 40]

# Driver Code (Note that lst is not modified

# after function call.

lst = [10, 11, 12, 13, 14, 15]

myFun(lst);

print(lst)

**output:**

[10, 11, 12, 13, 14, 15]