

PYTHON 3 (basic tutorial)

Lesson 1

Variables , EXpression and Statement

```
In [2]: #most important command in any programming language
```

```
#print()  
"""simply passing a integer to print function"""  
print(4)
```

```
4
```

```
In [5]: """Passing a string 1 and string constant in 2""""
```

```
"""Difference between string and string constant  
surprise unlike other language there is difference between str and str const  
ant, But in python they have same meaning"""
```

```
print("aman")  
#both will print the str or char enclosed in single and double quoted commas  
print('Sharma')
```

```
aman  
Sharma
```

```
In [4]: #whats that var ? dont worry we will cover it in coming sections
```

```
var = 'Choudhari'  
print("Karan",var)
```

```
Karan Choudhari
```

```
In [13]: #another way of concating strings in print function
```

```
var = " dopemode is on for "  
print(var +"aman")  
  
#either pre fix it or post fix it choice is according to situation  
quant = "5"  
price = "Rs.45"  
print(quant +" bananas cost:" + price )
```

```
dopemode is on for aman  
5 bananas cost:Rs.45
```

Now its your turn to perform these operations on print function (atleast 5) got issues call me

Values and types

```
In [14]: # you will learn about what type of data type it is
# type(argument) function takes one argument and return a result with what type
# of data it is
x = 4
type(x)

Out[14]: int

In [15]: x = "Self Obssesed aman"
type(x)

Out[15]: str

In [16]: x = 4.500
type(x)

Out[16]: float

In [18]: x = 'aman'
y = "karan"

#here you will get the answer for the statement which i have made about string
#and string constant
print("For double quotes:",type(y))
print("For single quotes:",type(x))

For double quotes: <class 'str'>
For single quotes: <class 'str'>
```

Variable

A variable is a name that refers to a value. Make a clear point in your mind everything that is need to be stored is handled by the variable.

We will be discussing some simple example to make it clear ,how they are declared and print .All doubts which may be persisting in your mind from the above discussion will be cleared shortly

```
In [20]: #Rule 1. we dont have to specify and data type like we do in c++ or c int x;
#Rule 2 .Keywords cannot be variables name
#rest of the rule for variable deceleration is same like other oop languages

name = "Karan"

#here name is a variable and karan is its value

print(name)

Karan
```

Keywords : python has 29 key words refere to link to know more about them ("and def exec if not return assert del finally import or try break elif for in pass while class else from is print yield continue except global lambda raise")

Statement

A statement is an instruction that a program can execute. Simplly : each line of code is statement print(1) x = "8995" y = 89 z = 87 sum = y+z all lines from 5 to 9 are statements

Evaluating expressions

```
In [24]: #evaluating expressions means carry out actions
x = 55
y = 89
sum = x + y #this is evaluation statement
print("Sum of two no is :",sum)
```

Sum of two no is : 144

Function

Syntax < ----

```
def nameof(arguments):
```

```
    ---body---
```

-----> def is a keyword for defining a function

special care has to be taken of indent .

```
In [30]: #sum function :
def sum(x,y):
    sum = x + y
    return sum

def sumwithoutargs():
    x = 7
    y = 8
    z = x + y
    return z

print("Function with parametes",sumwithoutargs())
print("FUnction without parameters",sum(4,5))
```

Function with parametes 15
FUnction without parameters 9

Explaining keyword import

import is basically used for importing libraries just like we used import for getting class in java

```
In [26]: import math  
height = math.sin(1.5)  
print(height)
```

0.9974949866040544