GETTING STARTED WITH PYTHON

VARIABLES:

Used to store values (values can be int, float, string, boolean, complex numbers, list, dictionary, tuple)

01 **ASSIGNMENT :** a = 5

02 **DATA TYPES :**

a) Boolean b) Number
c) String d) List
e) Dictionary f) Tuple

STRINGS:

Are a series of character surrounded by quotes.

01 **ASSIGNMENT :** *x = "Hello World!"*

02 **OPERATIONS :**

a) Multiplication: *x *2 = "Hello World!Hello World!"*
b) Concatenation: *x + x = "Hello World!Hello World!"*
c) Conditionals: *d in x = True*

LISTS:

Stores a series of items and mutable.

01 **ASSIGNMENT :** *x =['a', 'b', 'c', 'd']*

02 **OPERATIONS :**

a) Selecting element at "i"th index: *x[i]*
b) Selecting last element: *x[-1]*
c) Slicing from "i"th to "j"th index(including j): *x[i:j+1]*
d) Add "e": *x.append('e')*
e) Delete "e" : *x.remove('e')*
f) Delete element at "i"th index: *del x[i]*
g) Addition of lists:
x +x = ['a', 'b', 'c', 'd','a', 'b', 'c', 'd'] or x.extend(x)
h) Multiplication: *x * 2 = ['a', 'b', 'c', 'd','a', 'b', 'c', 'd']*
i) Sorting: *x.sort()*
j) Reversing: *x.reverse()*

03 **LIST COMPREHENSION:** *x = [a*2 for a in range(0,3)]*

OPERATORS:

01 **ARITHMETIC OPERATORS :**

a) Addition : a + 5 b) Subtraction : a - 5
c) Multiplication : a * 5 e) Division : a / 5
e) Exponentiation : a ** 5 f) Remainder : a % 5

02 **COMPARISON OPERATORS:**

Operator	Code	Result
==	3==5	False
!=	3!=5	True
>	3>4	False
<	3<4	True
>=	3>=3	True
<=	5<=4	False

03 **LOGICAL OPERATORS:**

Operator	Code	Result
AND	4> 2 and 4 > 5	False
OR	4>3 or 4>2	True
NOT	not(1>5)	True

04 **MEMBERSHIP OPERATORS:**

Operator	Code	Result
IN	a = 'Hello World' 'W' in a	True
NOT IN	a = 'Hello World' 'X' not in a	True

05 **IDENTITY OPERATORS:**

```
x1 = 5
y1 = 5
# Output: False
print(x1 is not y1)

x2 = 'Hello'
y2 = 'Hello'
# Output: True
print(x2 is y2)

x3 = [1,2,3]
y3 = [1,2,3]
# Output: False
print(x3 is y3)
```