

PYTHON DATA TYPES

1. Numbers
2. Booleans
3. Strings
4. Bytes
5. Lists
6. Arrays
7. Tuples
8. Sets
9. Dictionaries

PYTHON DATA TYPES: NUMBERS

1. can be real number
2. can be complex number

1. can be real number

```
In [8]: 1 print(120) # integar number
```

120

2. can be complex number

```
In [9]: 1 print(complex( 15.4, -8.5 ))
```

(15.4-8.5j)

PYTHON DATA TYPES: Booleans

1. Ture = 1
2. False = 0

```
In [16]: 1 print( int(True) , " ", int(False) )
```

1 0

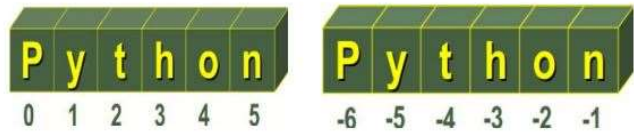
PYTHON DATA TYPES: BYTES

Differences between strings and bytes:

1. *Byte object contains sequence of bytes while String contains sequence of characters.*
2. *Bytes can be read by machines while strings can be read by humans.*
3. *Bytes is stored directly on machines while strings needs to be encoded first.*

PYTHON DATA TYPES: Strings

```
name1 = "sample string"
name2 = 'another sample string'
name3 = """a multiline
string example"""
```



```
In [26]: ▶ 1 string = "my name is Yahia"
          2 print(string[0:16:1])
```

my name is Yahia

Quiz

→ What is the output of the following code?

```
my_string = "0123456789"
```

```
print(my_string[-2: -6: -2])
```

Solution is: 86

Variables

1. Variables can change type, simply by assigning them a new value of a different type

```
In [2]: ▶ 1 x = 1
          2 x = "String value"
          3 type(x)
```

Out[2]: str

2. Python allows you to assign a single value to several variables simultaneously

```
In [4]: ▶ 1 a = b = c = 1  
2 print(a,b,c)  
  
1 1 1
```

3. You can also assign multiple objects to multiple variables

```
In [7]: ▶ 1 a , b , c = 4 , 3.2 , "hello"  
2 print(a,b,c)  
  
4 3.2 hello
```