

# Data Type in Python

In [ ]:

```
1 Numeric Data Types    >> int , float , complex
2 Text Data types      >> str
3 Sequence Data Types  >> list , tuple , set , frozenset
4 Mapping Data Types   >> dict
5 Boolean Data Types    >> bool >> True/False
```

## Numeric Data Types

### 1. int

In [1]:

```
1 Integer >> whole number +ve or -ve
```

Cell In[1], line 1

```
Integer >> whole number +ve or -ve
              ^
```

**SyntaxError:** invalid syntax

In [ ]:

```
1 56
2 -989
3 0
4 345
5 -89
6
7
```

In [3]:

```
1 m=200 # No need to explicitly define Data Type
2 print(f"Value of m is {m}")
3
```

Value of m is 200

In [ ]:

```
1 #other Language : # explicitly define data type of var
2 int age=40
3 float marks= 78.90
```

In [8]:

```
1 m=200
2 print(f"Value of m is {m}")
3 print(f"Data Type of m is {type(m)}")
```

Value of m is 200

Data Type of m is <class 'int'>

In [9]:

```
1 x=700
2 x
3 type(x)  # type () is built-in function which returns data type of variable
4 # print(type(x))
```

Out[9]:

int

In [11]:

```
1 Age=30
2 print(Age)
3 print(type(Age))
```

30

<class 'int'>

## 2.float

In [ ]:

```
1 float  >> + ve or -ve decimal number
2 decimal point
3
4 56.89
5 4.78
6 -79.34
7 -0.000045
8 0.0000000023
```

In [13]:

```
1 marks=89.76
2 print(f"Marks is : {marks}")
3 print(f"Data Type of marks is : {type(marks)}")
```

Marks is : 89.76

Data Type of marks is : <class 'float'>

In [15]:

```
1 x=0.00789
2 x
3 type(x)
```

Out[15]:

float

In [16]:

```
1 y=-0.6450
2 print(y)
3 print(type(y))
```

```
-0.645
<class 'float'>
```

### 3.complex

In [ ]:

```
1 3+5j
2 3 >>> real part
3 5 >>> imaginary part
4
```

In [18]:

```
1 x=3+5j
2 print(x)
3 print(type(x))
```

```
(3+5j)
<class 'complex'>
```

In [23]:

```
1 # Member Activity : Take help of google
2 # Seperate out Real Part and imaginary part from Complex Number
3 print("Real Part is ",x.real)
4 print("Imaginary part is ",x.imag)
5
```

```
Real Part is 3.0
Imaginary part is 5.0
```

In [24]:

```
1 z=5+0.7j
2 print(z)
3 print(type(z))
```

```
(5+0.7j)
<class 'complex'>
```

In [25]:

```
1 z=5.8+0.7j
2 print(z)
3 print(type(z))
```

```
(5.8+0.7j)
<class 'complex'>
```

In [ ]:

```
1
```