

Basic Data Types:

- * List
- * Dictionary
- * Tuple

List:

A list is a collection of elements.
[] - It is used to identify a list.
List can contain different types of elements.

In [1]:

```
mylist = [20,30,40,50,60,70]  
mylist
```

Out[1]:

```
[20, 30, 40, 50, 60, 70]
```

In [2]:

```
mylist[0]
```

Out[2]:

```
20
```

In [3]:

```
mylist[0:3]
```

Out[3]:

```
[20, 30, 40]
```

In [4]:

```
mylist[2:]
```

Out[4]:

```
[40, 50, 60, 70]
```

In [5]:

```
x = [1, "b", 3]  
x[1]
```

Out[5]:

```
'b'
```

Dictionary:

A dictionary is a collection of key and value pairs.
{ } - It is used to identify a dictionary.
It always have a key and value structure.

In [6]:

```
dict = {"Fruit" : "Apple", "Colour" : "Pink", "Number" : 1}
```

In [7]:

```
dict["Number"]
```

Out[7]:

1

In [8]:

```
dict.keys()
```

Out[8]:

```
dict_keys(['Fruit', 'Colour', 'Number'])
```

In [9]:

```
dict.values()
```

Out[9]:

```
dict_values(['Apple', 'Pink', 1])
```

In [10]:

```
students = {"s_1" : ["IBM"], "s_2" : ["INFOSYS", "WIPRO", "GOOGLE"]}
```

In [12]:

```
students["s_2"][2]
```

Out[12]:

'GOOGLE'

Tuple:

() - It is used to identify tuple.

In [13]:

```
tup = (1,2,3,4,5)  
print (tup)
```

(1, 2, 3, 4, 5)

In [15]:

```
tup[1]
```

Out[15]:

2

Difference between List and Tuple:

- * List are mutable (add or remove the elements)
- * Tuple are immutable (once created it cannot be modified)

In []: