Introduction to Dictionary

- Dictionary is a collection of **key - value pair**
- It works similar to real life dictionary which contains word and their meaning
- Searching is done based on dictionary Keys
- Dictionary is created as

dict = { ‘fruit’ : ‘apple’, ‘vegetable ’ : ‘carrot’ , ‘dish’ : ‘salad’}

fruit , vegetable and dish - **keys**
apple , carrot and salad - **values**

- For values you can take any Datatype
- But for **Keys** you can take **only immutable Datatype** (i.e ,excluding set and list datatype)
- We can perform the following on Dictionary I.e; Access , Insert , Update and Delete

```
>>>
>>> dict2 = { 101 : 'John' , 102 : 'Smith' , 103 : 'Mark', 104 : 'David'}
>>>
>>> dict2[102]
'Smith'
>>> dict2[0]
Traceback (most recent call last):
  File "<pyshell#4>", line 1, in <module>
    dict2[0]
KeyError: 0
>>> dict2[103]
'Mark'
>>> dict2[103]='Mathew'
>>> dict2
{101: 'John', 102: 'Smith', 103: 'Mathew', 104: 'David'}
>>>
>>> dict2[105]='Ajay'
>>> dict2
{101: 'John', 102: 'Smith', 103: 'Mathew', 104: 'David', 105: 'Ajay'}
>>> del dict2[104]
>>> dict2
{101: 'John', 102: 'Smith', 103: 'Mathew', 105: 'Ajay'}
>>>
```

No key with 0 value so we got error

#Updating dictionary

#inserting in dictionary

#deleting an item using key

Access

- For accessing any value use key inside [ ]

Update

- It updates the existing value in a dictionary using respectable key

Insert

- New keys and pair are inserted using insert in a dictionary

del

- To delete a particular value write del keyword , dict name then key inside [ ]
- You can also delete the complete dictionary using del keyword

- You can use for loop for traversing through a dictionary then you'll get keys as output

```
>>> dict2 = { 101 : 'John' , 102 : 'Smith' , 103 : 'Mark', 104 : 'David' }
>>>
>>> for i in dict2:
        print(i)                                    #only keys as output

101
102
103
104
```

- Suppose you want to print both key value using for then do this

```
>>> for i in dict2:
        print(i, dict2[i])


101 John
102 Smith
103 Mark
104 David
>>>
```

#Key - value as output