DICTIONARY

Dictionary is a mutable datatype in python. it is a collection of keys and value pairs separated by a colon(:) & enclosed in curly braces{}

create dictionary

In [1]:
```
mydict=dict()
mydict
```

Out[1]:
```
{}
```

In [2]:
```
mydict={}
mydict
```

Out[2]:
```
{}
```

In [3]:
```
mydict={1:'one',2:'two',3:'three'}
mydict
```

Out[3]:
```
{1: 'one', 2: 'two', 3: 'three'}
```

In [4]:
```
mydict=dict({1:'one',2:'two',3:'three'})
mydict
```

Out[4]:
```
{1: 'one', 2: 'two', 3: 'three'}
```

In [6]:
```
mydict = {'A':'1' , 'B':'2' , 'C':'3'}
mydict
```

Out[6]:
```
{'A': '1', 'B': '2', 'C': '3'}
```

In [7]:
```
mydict.keys() # returns all the object containing all the keys of the dictionary.
```

Out[7]:
```
dict_keys(['A', 'B', 'C'])
```

In [8]:
```
mydict.values() # returns a view object containg all the value of the dictionry.
```

Out[8]:
```
dict_values(['1', '2', '3'])
```

In [10]:
```
mydict.items() # return a key-value pair of the dictionary as tuple.
```

Out[10]:
```
dict_items([('A', '1'), ('B', '2'), ('C', '3')])
```

In [13]:
```
mydict['B']='Four' # in dict don't have add() we add items using dict[key]=value
mydict
```

Out[13]: {'A': '1', 'B': 'Four', 'C': '3'}

ADD,REMOVE AND CHANGE

In [14]:
```
mydict1 = {'Name':'Arsa' , 'ID': 123450 , 'DOB': 2001 , 'Address' : 'Hyd'}
mydict1
```

Out[14]: {'Name': 'Arsa', 'ID': 123450, 'DOB': 2001, 'Address': 'Hyd'}

In [15]:
```
mydict1['DOB'] = 2004 # Changing Dictionary Items
mydict1['Address'] = 'Bng'
mydict1
```

Out[15]: {'Name': 'Arsa', 'ID': 123450, 'DOB': 2004, 'Address': 'Bng'}

In [16]:
```
dict1 = {'DOB':2002}
mydict1.update(dict1) # modify multiple key-value pairs in the dict from another di
mydict1
```

Out[16]: {'Name': 'Arsa', 'ID': 123450, 'DOB': 2002, 'Address': 'Bng'}

In [17]:
```
mydict1['Job'] = 'Analyst' # Adding items
mydict1
```

Out[17]: {'Name': 'Arsa', 'ID': 123450, 'DOB': 2002, 'Address': 'Bng', 'Job': 'Analyst'}

In [18]:
```
mydict1.pop('Job') # Removing items
mydict1
```

Out[18]: {'Name': 'Arsa', 'ID': 123450, 'DOB': 2002, 'Address': 'Bng'}

In [19]:
```
mydict1.popitem()  # remove and returns the last inserted key-value pair from the d
```

Out[19]: ('Address', 'Bng')

In [20]:
```
del[mydict1['ID']] # Removing item using del method
mydict1
```

Out[20]: {'Name': 'Arsa', 'DOB': 2002}

In [21]:
```
mydict1.clear() # delete all key-value pairs and making it empty
mydict1
```

Out[21]: {}

In [26]:
```
mydict = {'Name':'Asif' , 'ID': 12345 , 'DOB': 1991 , 'Address' : 'Hilsinki'}
mydict
```

Out[26]:
```
{'Name': 'Asif', 'ID': 12345, 'DOB': 1991, 'Address': 'Hilsinki'}
```

In [27]:
```
mydict1 = mydict
```

In [29]:
```
mydict2 = mydict.copy() # create and return the shallow copy of the dict
mydict2
```

Out[29]:
```
{'Name': 'Asif', 'ID': 12345, 'DOB': 1991, 'Address': 'Hilsinki'}
```

Loop through a dictionary

In [30]:
```
mydict
```

Out[30]:
```
{'Name': 'Asif', 'ID': 12345, 'DOB': 1991, 'Address': 'Hilsinki'}
```

In [31]:
```
for i in mydict1:
    print(i,':',mydict1[i])
```

```
Name : Asif
ID : 12345
DOB : 1991
Address : Hilsinki
```

In [32]:
```
'Name' in mydict1
```

Out[32]:
```
True
```

In [33]:
```
'ID' in mydict1
```

Out[33]:
```
True
```

RANGE

In [34]:
```
for i in range(5): #it generate a sequence of the number and mostly used in the loo
    print(i)
```

```
0
1
2
3
4
```

In [35]:
```
for i in range(15):
    print(i)
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
```

In [ ]: