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 [5]:
```
mydict=dict({'A':'one','B':'two','C':'three'})
mydict
```

Out[5]: {'A': 'one', 'B': 'two', 'C': 'three'}

In [6]:
```
mydict={1:'one',2:'two','A':'three'}
mydict
```

Out[6]: {1: 'one', 2: 'two', 'A': 'three'}

In [7]:
```
mydict.keys()
```

Out[7]: dict_keys([1, 2, 'A'])

In [8]:
```
mydict.values()
```

Out[8]: dict_values(['one', 'two', 'three'])

In [9]:
```
mydict.items()
```

Out[9]: dict_items([(1, 'one'), (2, 'two'), ('A', 'three')])

In [10]:
```
mydict={1:'one',2:'two','A':['asif','rahul','bittu']}
mydict
```

Out[10]: {1: 'one', 2: 'two', 'A': ['asif', 'rahul', 'bittu']}

In [11]:
```
mydict={1:'one',2:'two','A':['asif','rahul','bittu'],'B':['sai','vanneldas']}
mydict
```

Out[11]:
```
{1: 'one',
 2: 'two',
 'A': ['asif', 'rahul', 'bittu'],
 'B': ['sai', 'vanneldas']}
```

In [12]:
```
keys={'a','b','c','d'}
mydict3=dict.fromkeys(keys)
mydict3
```

Out[12]:
```
{'b': None, 'd': None, 'c': None, 'a': None}
```

In [13]:
```
keys={'a','b','c','d'}
value=10
mydict3=dict.fromkeys(keys,value)
mydict3
```

Out[13]:
```
{'b': 10, 'd': 10, 'c': 10, 'a': 10}
```

In [14]:
```
keys={'a','b','c','d'}
value=[10,20,30]
mydict3=dict.fromkeys(keys,value)
mydict3
```

Out[14]:
```
{'b': [10, 20, 30], 'd': [10, 20, 30], 'c': [10, 20, 30], 'a': [10, 20, 30]}
```

In [15]:
```
mydict3
```

Out[15]:
```
{'b': [10, 20, 30], 'd': [10, 20, 30], 'c': [10, 20, 30], 'a': [10, 20, 30]}
```

In [16]:
```
value.append(40)
mydict3
```

Out[16]:
```
{'b': [10, 20, 30, 40],
 'd': [10, 20, 30, 40],
 'c': [10, 20, 30, 40],
 'a': [10, 20, 30, 40]}
```

accessing items

In [18]:
```
mydict = {1:'one',2:'two',3:'three',4:'four'}
mydict
```

Out[18]:
```
{1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

In [19]:
```
mydict[1] # acces the item using 'key'
```

Out[19]:
```
'one'
```

In [20]:
```
mydict.get(1) # access the item using get() method
```

Out[20]:
```
'one'
```

In [21]:
```
mydict1={'name':'asif','ID':1234, 'DOB':1991, 'job':'data analyst'}
mydict1
```

Out[21]:
```
{'name': 'asif', 'ID': 1234, 'DOB': 1991, 'job': 'data analyst'}
```

In [22]:
```
mydict1['name']
```

Out[22]:
```
'asif'
```

In [23]:
```
mydict1['job']
```

Out[23]:
```
'data analyst'
```

add,remove and change items

In [25]:
```
mydict1={'name': 'asif','id':3456, 'dob':1999, 'address':'montgomery'}
mydict1
```

Out[25]:
```
{'name': 'asif', 'id': 3456, 'dob': 1999, 'address': 'montgomery'}
```

In [26]:
```
mydict1['Dob']=1993 # changing dictionary items
mydict1['name']='rahul'
mydict1
```

Out[26]:
```
{'name': 'rahul',
 'id': 3456,
 'dob': 1999,
 'address': 'montgomery',
 'Dob': 1993}
```

In [27]:
```
dict1={'Dob':1995}
mydict1.update(dict1)
mydict1
```

Out[27]:
```
{'name': 'rahul',
 'id': 3456,
 'dob': 1999,
 'address': 'montgomery',
 'Dob': 1995}
```

In [28]:
```
mydict1['job']='analyst' # adding items in the dictionary
mydict1
```

Out[28]:
```
{'name': 'rahul',
 'id': 3456,
 'dob': 1999,
 'address': 'montgomery',
 'Dob': 1995,
 'job': 'analyst'}
```

In [29]:
```
mydict1.pop('job') # removing items in the dictionary using pop() method
mydict1
```

Out[29]:
```
{'name': 'rahul',
 'id': 3456,
 'dob': 1999,
 'address': 'montgomery',
 'Dob': 1995}
```

In [30]:
```
mydict1.items()
```

Out[30]:
```
dict_items([('name', 'rahul'), ('id', 3456), ('dob', 1999), ('address', 'montgomer
y'), ('Dob', 1995)])
```

In [31]:
```
mydict1.popitem() # a random item is removed
```

Out[31]:
```
('Dob', 1995)
```

In [32]:
```
mydict1
```

Out[32]:
```
{'name': 'rahul', 'id': 3456, 'dob': 1999, 'address': 'montgomery'}
```

In [33]:
```
del[mydict1['id']] # delets item
mydict1
```

Out[33]:
```
{'name': 'rahul', 'dob': 1999, 'address': 'montgomery'}
```

In [34]:
```
mydict1.clear() # clears the all the items
mydict1
```

Out[34]:
```
{}
```

In [77]:
```
del mydict1
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[77], line 1
----> 1 del mydict1

NameError: name 'mydict1' is not defined
```

copy dictionary

In [82]:
```
mydict={'name':'rahul','id':2425,'address':'mgm','phn':123}
mydict
```

Out[82]:
```
{'name': 'rahul', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [86]:
```
mydict1=mydict # craete a new reference "mydict1"
mydict1
```

Out[86]:
```
{'name': 'rahul', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [92]:
```
mydict2=mydict.copy()# the address of both mydict and mydict1 will be same
mydict2
```

Out[92]:
```
{'name': 'rahul', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [94]:
```
id(mydict),id(mydict1),id(mydict2)
```

Out[94]:
```
(1857325790272, 1857325790272, 1857325989120)
```

In [96]:
```
mydict['name']='roy'
mydict
```

Out[96]:
```
{'name': 'roy', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [98]:
```
mydict1 # here mydict1 also impacted as it is referring to the same dictionary
```

Out[98]:
```
{'name': 'roy', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [100…
```
mydict2 # it is not updated here because it is a copy
```

Out[100…
```
{'name': 'rahul', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

loop through a dictionary

In [103…
```
mydict1
```

Out[103…
```
{'name': 'roy', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [107…
```
for i in mydict1:
    print(i)
```

```
name
id
address
phn
```

In [109…
```
for i in mydict1:
    print(i, ':' ,mydict1[i])
```

```
name : roy
id : 2425
address : mgm
phn : 123
```

dictionary membership

In [112…
```
mydict1
```

Out[112…
```
{'name': 'roy', 'id': 2425, 'address': 'mgm', 'phn': 123}
```

In [114…
```
'name' in mydict1 # testing if the key in dictionary or not
```

Out[114… True

In [116…
```
'bamp' in mydict1
```

Out[116… False

All / Any

The all() method returns: True - If all all keys of the dictionary are true False - If any key of the dictionary is false The any() function returns True if any key of the dictionary is True. If not, any() returns False.

In [119…
```
mydict1
```

Out[119… {'name': 'roy', 'id': 2425, 'address': 'mgm', 'phn': 123}

In [121…
```
all(mydict1)
```

Out[121… True

In [123…
```
mydict1['id']=0
mydict1
```

Out[123… {'name': 'roy', 'id': 0, 'address': 'mgm', 'phn': 123}

In [125…
```
all(mydict1)
```

Out[125… True

In [ ]: