

Dictionary

```
In [1]: #creating Dictionary  
mydict = dict()  
mydict
```

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

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

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

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

```
In [4]: mydict
```

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

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

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

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

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

```
In [3]: mydict.keys()
```

```
Out[3]: dict_keys([1, 'B', 3])
```

```
In [4]: mydict.values()
```

```
Out[4]: dict_values(['one', 'two', 'Three'])
```

```
In [5]: mydict.items()
```

```
Out[5]: dict_items([(1, 'one'), ('B', 'two'), (3, 'Three')])
```

```
In [7]: mydict = {1:'one',2:'two',3:['three','four','five']}  
mydict
```

```
Out[7]: {1: 'one', 2: 'two', 3: ['three', 'four', 'five']}
```

```
In [8]: mydict = {1:'one',2:'two','A':['Asif','john','maria'],'B':['Apple','banana','cherry']  
mydict
```

```
Out[8]: {1: 'one',
        2: 'two',
        'A': ['Asif', 'john', 'maria'],
        'B': ['Apple', 'banana', 'cherry']}
```

```
In [9]: mydict={1:'one',2:'two','A':{'Name':'Pushpa','Age':21},'B':('bat','cat','hat')}
mydict
```

```
Out[9]: {1: 'one',
        2: 'two',
        'A': {'Name': 'Pushpa', 'Age': 21},
        'B': ('bat', 'cat', 'hat')}
```

```
In [10]: keys={'a','b','c','d'}
mydict1=dict.fromkeys(keys)
mydict1
```

```
Out[10]: {'b': None, 'c': None, 'd': None, 'a': None}
```

```
In [13]: keys={'a','b','c','d'}
value=10
mydict2 = dict.fromkeys(keys,value)
mydict2
```

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

```
In [15]: values=[10,20,30]
mydict3 = dict.fromkeys(keys,values)
mydict3
```

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

```
In [18]: values.append(40)
mydict3
```

```
Out[18]: {'b': [10, 20, 30, 40],
        'c': [10, 20, 30, 40],
        'd': [10, 20, 30, 40],
        'a': [10, 20, 30, 40]}
```

Accessing Items

```
In [21]: mydict={1:'one',2:'two',3:'three',4:'four'}
mydict
```

```
Out[21]: {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

```
In [22]: mydict[1]
```

```
Out[22]: 'one'
```

```
In [23]: mydict.get(1)
```

Out[23]: 'one'

```
In [24]: mydict1={'Name':'sharma','Age':25,'Id':456}  
mydict1
```

Out[24]: {'Name': 'sharma', 'Age': 25, 'Id': 456}

```
In [26]: mydict1['Name']
```

Out[26]: 'sharma'

```
In [27]: mydict1.get('Id')
```

Out[27]: 456

Add, Remove and changing Items

```
In [38]: mydict1 = {'Name':'sharma','ID':1345,'DOB':1994,'Address':'Hyderabad'}  
mydict1
```

Out[38]: {'Name': 'sharma', 'ID': 1345, 'DOB': 1994, 'Address': 'Hyderabad'}

```
In [39]: mydict1['DOB']=1998  
mydict1['Address']='Pune'  
mydict1
```

Out[39]: {'Name': 'sharma', 'ID': 1345, 'DOB': 1998, 'Address': 'Pune'}

```
In [40]: dict1={'DOB':1995}  
mydict1.update(dict1)  
mydict1
```

Out[40]: {'Name': 'sharma', 'ID': 1345, 'DOB': 1995, 'Address': 'Pune'}

```
In [41]: mydict1['Job']='Analyst'  
mydict1
```

Out[41]: {'Name': 'sharma',
 'ID': 1345,
 'DOB': 1995,
 'Address': 'Pune',
 'Job': 'Analyst'}

```
In [42]: mydict1.pop('Job')
```

Out[42]: 'Analyst'

```
In [43]: mydict1
```

Out[43]: {'Name': 'sharma', 'ID': 1345, 'DOB': 1995, 'Address': 'Pune'}

```
In [44]: mydict1.popitem()
```

```
Out[44]: ('Address', 'Pune')
```

```
In [46]: mydict1
```

```
Out[46]: {'Name': 'sharma', 'ID': 1345, 'DOB': 1995}
```

```
In [47]: del mydict1['ID']  
mydict1
```

```
Out[47]: {'Name': 'sharma', 'DOB': 1995}
```

```
In [48]: mydict1.clear()  
mydict1
```

```
Out[48]: {}
```

```
In [49]: del mydict1  
mydict1
```

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[49], line 2  
      1 del mydict1  
----> 2 mydict1  
  
NameError: name 'mydict1' is not defined
```

copy Dictionary

```
In [52]: mydict={'Name':'Rohit','ID':12345,'DOB':1991,'Address':'Mumbai'}  
mydict
```

```
Out[52]: {'Name': 'Rohit', 'ID': 12345, 'DOB': 1991, 'Address': 'Mumbai'}
```

```
In [53]: mydict1 = mydict
```

```
In [54]: id(mydict) , id(mydict1)
```

```
Out[54]: (2528872970752, 2528872970752)
```

```
In [55]: mydict2=mydict.copy()
```

```
In [56]: id(mydict2)
```

```
Out[56]: 2528875263552
```

```
In [57]: mydict['Address']='Bombay'
```

```
In [58]: mydict
```

```
Out[58]: {'Name': 'Rohit', 'ID': 12345, 'DOB': 1991, 'Address': 'Bombay'}
```

```
In [59]: mydict1
```

```
Out[59]: {'Name': 'Rohit', 'ID': 12345, 'DOB': 1991, 'Address': 'Bombay'}
```

```
In [60]: mydict2
```

```
Out[60]: {'Name': 'Rohit', 'ID': 12345, 'DOB': 1991, 'Address': 'Mumbai'}
```

Loop through a Dictionary

```
In [67]: mydict1 = {'Name': 'siraj', 'Id': 1234, 'Dob': 1998, 'Address': 'Hyd'}
```

```
In [68]: mydict1
```

```
Out[68]: {'Name': 'siraj', 'Id': 1234, 'Dob': 1998, 'Address': 'Hyd'}
```

```
In [69]: for i in mydict1:
          print(i, ': ', mydict1[i])
```

```
Name : siraj
Id : 1234
Dob : 1998
Address : Hyd
```

```
In [70]: for i in mydict1:
          print(mydict1[i])
```

```
siraj
1234
1998
Hyd
```

Dictionary Membership

```
In [71]: mydict1 = {'Name': 'Asif', 'ID': 1234, 'DOB': 1991, 'Job': 'Analyst'}
          mydict1
```

```
Out[71]: {'Name': 'Asif', 'ID': 1234, 'DOB': 1991, 'Job': 'Analyst'}
```

```
In [72]: 'Name' in mydict1
```

```
Out[72]: True
```

```
In [73]: 'Asif' in mydict1
```

Out[73]: False

In [74]: `'ID' in mydict1`

Out[74]: True

In [75]: `'Address' in mydict1`

Out[75]: False

All /Any

In [77]: `mydict1 = {'Name':'qwerty','ID':123,'DOB':2004}`
`mydict1`

Out[77]: {'Name': 'qwerty', 'ID': 123, 'DOB': 2004}

In [78]: `all(mydict1)`

Out[78]: True

In []: