

# Dictionary

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

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

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

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

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

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

```
In [6]: mydict = ({1:'one', 2:'two', 3:'three'})  
mydict
```

```
Out[6]: {1: 'one', 2: 'two', 3: 'three'}
```

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

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

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

```
Out[9]: dict_values(['one', 'two', 'three'])
```

```
In [10]: mydict.items()
```

```
Out[10]: dict_items([(1, 'one'), (2, 'two'), (3, 'three')])
```

```
In [11]: mydict = {1:'one', 2:'two', 'A':['prasad', 'srinu', 'durga']}  
mydict
```

```
Out[11]: {1: 'one', 2: 'two', 'A': ['prasad', 'srinu', 'durga']}
```

```
In [12]: mydict = {1:'one', 2:'two', 'A':['prasad', 'srinu', 'durga'], 'B':['app','bat','  
mydict
```

```
Out[12]: {1: 'one',  
          2: 'two',  
          'A': ['prasad', 'srinu', 'durga'],  
          'B': ['app', 'bat', 'cat']}
```

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

```
Out[14]: {'a': None, 'd': None, 'b': None, 'c': None}
```

```
In [17]: keys = {'a','b','c','d'}  
value = 10  
mydict3 = dict.fromkeys(keys,value)  
mydict3
```

```
Out[17]: {'a': 10, 'd': 10, 'b': 10, 'c': 10}
```

```
In [19]: keys = {'a','b','c','d'}  
value = [10,20,30]  
mydict3 = dict.fromkeys(keys, value)  
mydict3
```

```
Out[19]: {'a': [10, 20, 30], 'd': [10, 20, 30], 'b': [10, 20, 30], 'c': [10, 20, 30]}
```

```
In [20]: value.append(40)  
mydict3
```

```
Out[20]: {'a': [10, 20, 30, 40],  
          'd': [10, 20, 30, 40],  
          'b': [10, 20, 30, 40],  
          'c': [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 [25]: mydict[1]  # Accessing item using key
```

```
Out[25]: 'one'
```

```
In [26]: mydict.get(1)  #n Accessing item using get() method
```

```
Out[26]: 'one'
```

```
In [27]: mydict1 = {'Name':'Prasad', 'ID':763, 'DOB':1999, 'job':'Analyst'}  
mydict1
```

```
Out[27]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1999, 'job': 'Analyst'}
```

```
In [28]: mydict1['Name']
```

```
Out[28]: 'Prasad'
```

```
In [34]: mydict1.get('job')
```

```
Out[34]: 'Analyst'
```

## Add, remove & Changes

```
In [35]: mydict1 = {'Name': 'Prasad', 'ID': 763, 'DOB': 1999, 'Adress': 'Hyderabad'}  
mydict1
```

```
Out[35]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1999, 'Adress': 'Hyderabad'}
```

```
In [36]: mydict1['DOB'] = 2000    # Changing Dictionary items  
mydict1['Adress'] = 'Delhi'  
mydict1
```

```
Out[36]: {'Name': 'Prasad', 'ID': 763, 'DOB': 2000, 'Adress': 'Delhi'}
```

```
In [37]: dict1 = {'DOB': 1995}  
mydict1.update(dict1)  
mydict1
```

```
Out[37]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

```
In [38]: mydict1['job'] = 'Analyst'  
mydict1
```

```
Out[38]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi', 'job': 'Analyst'}
```

```
In [40]: mydict1.pop('job')  
mydict1
```

```
Out[40]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

```
In [41]: mydict1.popitem()    # A random item is removed
```

```
Out[41]: ('Adress', 'Delhi')
```

```
In [42]: mydict1
```

```
Out[42]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995}
```

```
In [44]: del [mydict1['ID']]  
mydict1
```

```
-----  
KeyError                                Traceback (most recent call last)  
Cell In[44], line 1  
----> 1 del [mydict1['ID']]  
      2 mydict1  
  
KeyError: 'ID'
```

```
In [45]: del [mydict1['DOB']]  
mydict1
```

```
Out[45]: {'Name': 'Prasad'}
```

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

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[47], line 1  
----> 1 del mydict1  
      2 mydict1  
  
NameError: name 'mydict1' is not defined
```

## Copy Dict

```
In [51]: mydict = {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

```
In [52]: mydict
```

```
Out[52]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

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

```
Out[53]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

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

```
Out[54]: (2475266976768, 2475266976768)
```

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

```
Out[55]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

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

```
Out[56]: 2475266951104
```

```
In [57]: mydict['Adress'] = 'Guntur'  
mydict
```

```
Out[57]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Guntur'}
```

```
In [58]: mydict2
```

```
Out[58]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Delhi'}
```

## Loop Through a Dictionary

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

```
Out[59]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Guntur'}
```

```
In [62]: for i in mydict:  
         print(i,':',mydict[i])
```

Name : Prasad  
ID : 763  
DOB : 1995  
Adress : Guntur

```
In [63]: for i in mydict:  
         print(i)
```

Name  
ID  
DOB  
Adress

## Dictionary Membership

```
In [64]: mydict
```

```
Out[64]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Guntur'}
```

```
In [65]: 'Name' in mydict
```

```
Out[65]: True
```

```
In [66]: 'prasad' in mydict
```

```
Out[66]: False
```

```
In [67]: 'ID' in mydict
```

```
Out[67]: True
```

## ALL & Any

```
In [68]: mydict
```

```
Out[68]: {'Name': 'Prasad', 'ID': 763, 'DOB': 1995, 'Adress': 'Guntur'}
```

```
In [69]: all(mydict)
```

```
Out[69]: True
```

```
In [ ]:
```

```
In [ ]:
```

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In [ ]:
```

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In [ ]:
```

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In [ ]:
```

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In [ ]:
```