

```
In [134... #27th  
#python dictionary
```

```
In [135... mydict= dict()    # empty dictionary  
mydict
```

```
Out[135... {}
```

```
In [136... mydict={}  
mydict
```

```
Out[136... {}
```

```
In [137... d1={1:'one',2:'two',3:'three',4:'four'}  
d1
```

```
Out[137... {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

```
In [138... #dictionary with char keys
```

```
In [139... mydict1={'A':'one','b':'two','C':'three'}  
mydict1
```

```
Out[139... {'A': 'one', 'b': 'two', 'C': 'three'}
```

```
In [140... # mixed keys
```

```
In [141... mydict2={'A':'one','b':'two',3:'three'}  
mydict2
```

```
Out[141... {'A': 'one', 'b': 'two', 3: 'three'}
```

```
In [142... type(d1)
```

```
Out[142... dict
```

```
In [143... d2=d1.copy()
```

```
In [144... d2
```

```
Out[144... {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

```
In [145... d1.items()    # print all items
```

```
Out[145... dict_items([(1, 'one'), (2, 'two'), (3, 'three'), (4, 'four')])
```

```
In [146... len(d1.items()) # number of items in dict
```

Out[146... 4

```
In [147... d1
```

Out[147... {1: 'one', 2: 'two', 3: 'three', 4: 'four'}

```
In [148... d1[3]      # index print
```

Out[148... 'three'

```
In [149... d1.keys()    #keys
```

Out[149... dict_keys([1, 2, 3, 4])

```
In [150... d1.values()   #values
```

Out[150... dict_values(['one', 'two', 'three', 'four'])

```
In [151... d1['list']: [1,2,3]
d1
```

Out[151... {1: 'one', 2: 'two', 3: 'three', 4: 'four'}

```
In [152... d1.pop(1)
```

Out[152... 'one'

```
In [153... mydict3={1:'one', 2:'two', 3:['vedanth','vishruth']}
mydict3
```

Out[153... {1: 'one', 2: 'two', 3: ['vedanth', 'vishruth']}

```
In [154... mydict4={1:'one' ,2: 'two',3: {'vedanth','vishruth'}}
mydict4
```

Out[154... {1: 'one', 2: 'two', 3: {'vedanth', 'vishruth'}}

```
In [155... keys={1,2,3,4}
mydict3=dict.fromkeys(keys)
mydict3
```

Out[155... {1: None, 2: None, 3: None, 4: None}

```
In [156... # create a dictionary from a sequence
keys={'a','b','c'}
value=10
mydict3=dict.fromkeys(keys , value )
mydict3

# dict in membership
```

```
#all nad any
```

```
Out[156... {'b': 10, 'c': 10, 'a': 10}
```

```
In [157... # dict in membership  
#all nad any
```

```
In [158... keys={1,2,3,4}  
mydict3=dict.fromkeys(keys)  
mydict3
```

```
Out[158... {1: None, 2: None, 3: None, 4: None}
```

```
In [159... keys=['a','b','c','d']  
value={10,20,30,40,50}  
dict1=dict.fromkeys(keys , value)  
dict1
```

```
Out[159... {'a': {10, 20, 30, 40, 50},  
          'b': {10, 20, 30, 40, 50},  
          'c': {10, 20, 30, 40, 50},  
          'd': {10, 20, 30, 40, 50}}
```

Accessing items

accessing items

```
In [160... mydict={1:'hello', 2:'how' , 3: 'are' , 4:'you'}  
mydict
```

```
Out[160... {1: 'hello', 2: 'how', 3: 'are', 4: 'you'}
```

```
In [161... mydict[1] #access item using key
```

```
Out[161... 'hello'
```

```
In [246... mydict.get(3) #access item usig get*() meth
```

```
Out[246... 'are'
```

```
In [247... mydict_details={'name': 'Aruna','ID' : 'Aadhar', 'DOB':'1990', 'job':'Data  
mydict_details
```

```
Out[247... {'name': 'Aruna', 'ID': 'Aadhar', 'DOB': '1990', 'job': 'Data scientis  
t'}
```

```
In [248... mydict_details['name']
```

```
Out[248... 'Aruna'
```

```
In [249... mydict_details.get('job')
```

Out[249... 'Data scientist'

ADD REMOVE AND CHANGE ITEMS

In [250... mydict_details

Out[250... {'name': 'Aruna', 'ID': 'Aadhar', 'DOB': '1990', 'job': 'Data scientist'}

```
In [251... mydict_details['DOB'] ='2000'           #changingdictionary items
mydict_details['Aadhar']= '123 234 678'
mydict_details
```

Out[251... {'name': 'Aruna',
 'ID': 'Aadhar',
 'DOB': '2000',
 'job': 'Data scientist',
 'Aadhar': '123 234 678'}

```
In [252... # REMOVING ITEM FROM THE DICTIONARY

mydict_details.pop('ID')
```

Out[252... 'Aadhar'

In []:

In [253... mydict_details

Out[253... {'name': 'Aruna',
 'DOB': '2000',
 'job': 'Data scientist',
 'Aadhar': '123 234 678'}

```
In [254... mydict_details.popitem()   # pop random item from the dictionary
```

Out[254... ('Aadhar', '123 234 678')

```
In [255... # remove item using delete method
del mydict_details['name']
mydict_details
```

Out[255... {'DOB': '2000', 'job': 'Data scientist'}

```
In [256... my_dict={1:'a',2:'d',3:'t',4:'u'}
my_dict
```

```
#clear.my_dict()
```

Out[256... {1: 'a', 2: 'd', 3: 't', 4: 'u'}

```
In [257... my_dict.clear()
my_dict
```

```
Out[257... {}
```

```
In [258... del mydict_details
mydict_details
```

```
-----
NameError                                Traceback (most recent call las
t)
Cell In[258], line 2
      1 del mydict_details
----> 2 mydict_details

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

```
In [260... # copy dictionary

mydict_details={'1':'what','2':'python'}
mydict_details
```

```
Out[260... {'1': 'what', '2': 'python'}
```

```
In [264... mydict_details1=(mydict_details)
mydict_details1
```

```
Out[264... {'1': 'what', '2': 'python'}
```

```
In [267... mydict_details2=mydict_details.copy()      # copy()
mydict_details2
```

```
Out[267... {'1': 'what', '2': 'python'}
```

```
In [270... id(mydict_details1), id(mydict_details)
```

```
Out[270... (5152251392, 5152251392)
```

```
In [273... for i in mydict_details2:
            print(i, ': ', mydict_details2[i])      # Key & value pair

1 : what
2 : python
```

```
In [276... 'what' in mydict_details2      # membership test can be checked with keys n
```

```
Out[276... False
```

```
In [279... '1' in mydict_details2
```

```
Out[279... True
```

```
In [280... #range  
list(range(10))
```

```
Out[280... [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
In [281... list(range(10,200,30))
```

```
Out[281... [10, 40, 70, 100, 130, 160, 190]
```

```
In [284... r=range(10)  
for i in r:  
    print (i)
```

```
0  
1  
2  
3  
4  
5  
6  
7  
8  
9
```

ALL and ANY

```
In [285... all(mydict_details2) # true---if all keys of dictionary is true  
                             # false----if any key of dictionary is false
```

```
Out[285... True
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```