

```
In [1]: #dictionary:-
```

```
In [7]: emp=['Neha',101,56000,'Pune','Hinjewadi',4501,'Pune']
print(emp)
```

```
['Neha', 101, 56000, 'Pune', 'Hinjewadi', 4501, 'Pune']
```

```
In [19]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':
print(emp)
print(type(emp))
print(len(emp))
```

```
{'name': 'Riya', 'id': 101, 'sal': 56000, 'addr': 'Pune', 'of_addr': 'Pune',
'code': 4501}
<class 'dict'>
6
```

```
In [20]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':
print(emp.keys()) #returns all the keys from the dict
```

```
dict_keys(['name', 'id', 'sal', 'addr', 'of_addr', 'code'])
```

```
In [21]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':
print(emp.values()) #returns all the values from the dict
```

```
dict_values(['Riya', 101, 56000, 'Pune', 'Pune', 4501])
```

```
In [22]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':
print(emp.items())
```

```
dict_items([('name', 'Riya'), ('id', 101), ('sal', 56000), ('addr', 'Pune'),
('of_addr', 'Pune'), ('code', 4501)])
```

```
In [30]: emp=['Neha',101,56000,'Pune','Hinjewadi',4501,'Pune']
print(emp[3:7])
print(emp[2])
```

```
['Pune', 'Hinjewadi', 4501, 'Pune']
56000
```

```
In [26]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':
print(emp['addr'])
print(emp['sal'])
```

```
Pune
56000
```

```
In [28]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':  
print(emp.get('code'))  
print(emp.get('name'))
```

4501
Riya

```
In [29]: emp={'name':'Neha','id':101,'sal':56000,'addr':'Pune','of_addr':'Pune','code':  
print(emp['id'])  
print(emp.get('name'))
```

101
Riya

```
In [31]: #CHANGES:-
```

```
In [33]: emp=['Neha',101,56000,'Pune','Hinjewadi',4501,'Pune']  
emp[0]='RIYA'  
print(emp)
```

['RIYA', 101, 56000, 'Pune', 'Hinjewadi', 4501, 'Pune']

```
In [35]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}  
emp['name']='Riya'  
print(emp)
```

{'name': 'Riya', 'id': 101, 'sal': 56000, 'code': 4501}

```
In [36]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}  
emp.update({'id':202})  
print(emp)
```

{'name': 'Neha', 'id': 202, 'sal': 56000, 'code': 4501}

```
In [41]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}  
emp['sal']=78000  
emp.update({'code':4777})  
print(emp)
```

{'name': 'Neha', 'id': 101, 'sal': 78000, 'code': 4777}

```
In [39]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}  
emp['address']='Pune'  
print(emp)
```

{'name': 'Neha', 'id': 101, 'sal': 56000, 'code': 4501, 'address': 'Pune'}

```
In [42]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
emp.update({'designation':'Python developer'})
print(emp)
```

```
{'name': 'Neha', 'id': 101, 'sal': 56000, 'code': 4501, 'designation': 'Python developer'}
```

```
In [43]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
emp.pop('id')
print(emp)
```

```
{'name': 'Neha', 'sal': 56000, 'code': 4501}
```

```
In [45]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
emp.pop('name')
print(emp)
```

```
{'id': 101, 'sal': 56000, 'code': 4501}
```

```
In [47]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
emp.popitem()
emp.popitem()
print(emp)
```

```
{'name': 'Neha', 'id': 101}
```

```
In [48]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
emp.clear()
print(emp)
```

```
{}
```

```
In [49]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
x=emp.copy()
print(x)
print(emp)
```

```
{'name': 'Neha', 'id': 101, 'sal': 56000, 'code': 4501}
{'name': 'Neha', 'id': 101, 'sal': 56000, 'code': 4501}
```

```
In [51]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
del emp
print(emp)
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_21372\1412035473.py in <module>
      1 emp={'name':'Neha','id':101,'sal':56000,'code':4501}
      2 del emp
----> 3 print(emp)
```

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

```
In [52]: emp={'name':'Neha','id':101,'sal':56000,'code':4501}
del emp['sal']
print(emp)
```

```
{'name': 'Neha', 'id': 101, 'code': 4501}
```

```
In [62]: color={'r':'red','b':'blue','g':'green','p':'pink','b1':'blue'}
print(color)
print(type(color))
print(len(color))
print(color.keys())
print(color.values())
print(color.items())
```

```
{'r': 'red', 'b': 'blue', 'g': 'green', 'p': 'pink', 'b1': 'blue'}
<class 'dict'>
5
dict_keys(['r', 'b', 'g', 'p', 'b1'])
dict_values(['red', 'blue', 'green', 'pink', 'blue'])
dict_items([('r', 'red'), ('b', 'blue'), ('g', 'green'), ('p', 'pink'), ('b1', 'blue')])
```

```
In [74]: color={'r':'red','b':'blue','g':'green','p':'pink','b1':'blue'}
print(color['g'])
print(color.get('r'))
color['g']='gray'
print(color)
color.update({'p':'purple'})
print(color)
color['o']='orange'
print(color)
color.update({'v':'voilet'})
print(color)
color.pop('b1')
print(color)
color.popitem()
print(color)
x=color.copy()
print(x)
x.clear()
print(x)
del x
```

```
green
red
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'pink', 'b1': 'blue'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'b1': 'blue'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'b1': 'blue', 'o': 'orange'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'b1': 'blue', 'o': 'orange', 'v': 'voilet'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'o': 'orange', 'v': 'voilet'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'o': 'orange'}
{'r': 'red', 'b': 'blue', 'g': 'gray', 'p': 'purple', 'o': 'orange'}
{}
```

In []: