```
In [1]:  d={}
         d
```

Out[1]: {}

```
In [3]:  type(d)
```

Out[3]: dict

```
In [5]:  d={1:'one',2:'two',3:'three'}
         d
```

Out[5]: {1: 'one', 2: 'two', 3: 'three'}

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

Out[7]: dict_keys([1, 2, 3])

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

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

```
In [11]:  d.items()
```

Out[11]: dict_items([(1, 'one'), (2, 'two'), (3, 'three')])

```
In [15]:  d1={1:'one',2:'two',3:'three',4:['manu','sha'],5:'five'}
          d1
```

Out[15]: {1: 'one', 2: 'two', 3: 'three', 4: ['manu', 'sha'], 5: 'five'}

```
In [17]:  d1.keys()
```

Out[17]: dict_keys([1, 2, 3, 4, 5])

```
In [19]:  d1.values()
```

Out[19]: dict_values(['one', 'two', 'three', ['manu', 'sha'], 'five'])

```
In [21]:  keys='a','b','c','d'
          d2=dict.fromkeys(keys)
          d2
```

Out[21]: {'a': None, 'b': None, 'c': None, 'd': None}

```
In [29]:  keys='a','b','c','d'
          value=20
          d2=dict.fromkeys(keys, value)
          d2
```

Out[29]: {'a': 20, 'b': 20, 'c': 20, 'd': 20}
```

```
In [31]: keys='p','q','r','s'
         value=[76,98,34,87]
         d3=dict.fromkeys(keys,value)
         d3
```

```
Out[31]: {'p': [76, 98, 34, 87],
          'q': [76, 98, 34, 87],
          'r': [76, 98, 34, 87],
          's': [76, 98, 34, 87]}
```

```
In [33]: value.append(20)
         d3
```

```
Out[33]: {'p': [76, 98, 34, 87, 20],
          'q': [76, 98, 34, 87, 20],
          'r': [76, 98, 34, 87, 20],
          's': [76, 98, 34, 87, 20]}
```

```
In [35]: d
```

```
Out[35]: {1: 'one', 2: 'two', 3: 'three'}
```

```
In [47]: dict={'Name':'Manisha','DOB':2002,'job':'Analyst','Id':55}
         dict
```

```
Out[47]: {'Name': 'Manisha', 'DOB': 2002, 'job': 'Analyst', 'Id': 55}
```

```
In [49]: dict1={'Name':'Asif','DOB':1991,'job':'Analyst','Id':74123}
         dict1
```

```
Out[49]: {'Name': 'Asif', 'DOB': 1991, 'job': 'Analyst', 'Id': 74123}
```

```
In [51]: dict['Name']
```

```
Out[51]: 'Manisha'
```

```
In [53]: d
```

```
Out[53]: {1: 'one', 2: 'two', 3: 'three'}
```

```
In [55]: d[3]
```

```
Out[55]: 'three'
```

```
In [57]: dict['job']='Data Analyst' #changing value
         dict
```

```
Out[57]: {'Name': 'Manisha', 'DOB': 2002, 'job': 'Data Analyst', 'Id': 55}
```

```
In [59]: dict['Address']='Hyd' #adding values
         dict
```

```
Out[59]:  {'Name': 'Manisha',
           'DOB': 2002,
           'job': 'Data Analyst',
           'Id': 55,
           'Address': 'Hyd'}
```

```
In [61]:  d
```

```
Out[61]:  {1: 'one', 2: 'two', 3: 'three'}
```

```
In [69]:  d.pop(2)
```

```
Out[69]:  'two'
```

```
In [71]:  d
```

```
Out[71]:  {1: 'one', 3: 'three'}
```

```
In [73]:  dict
```

```
Out[73]:  {'Name': 'Manisha',
           'DOB': 2002,
           'job': 'Data Analyst',
           'Id': 55,
           'Address': 'Hyd'}
```

```
In [75]:  dict.keys()
```

```
Out[75]:  dict_keys(['Name', 'DOB', 'job', 'Id', 'Address'])
```

```
In [77]:  dict.get('DOB')
```

```
Out[77]:  2002
```

```
In [79]:  dict.copy() #no arguments taken
```

```
Out[79]:  {'Name': 'Manisha',
           'DOB': 2002,
           'job': 'Data Analyst',
           'Id': 55,
           'Address': 'Hyd'}
```

```
In [85]:  dict.popitem() #values will be popped randomly
```

```
Out[85]:  ('Address', 'Hyd')
```

```
In [87]:  d=dict.copy()
           d
```

```
Out[87]:  {'Name': 'Manisha', 'DOB': 2002, 'job': 'Data Analyst', 'Id': 55}
```

```
In [89]:  for i in dict:
               print(i,':',dict[i])
```

```
Name : Manisha
DOB : 2002
job : Data Analyst
Id : 55
```

In [91]:
```python
for i in dict:
    print(dict[i])
```

```
Manisha
2002
Data Analyst
55
```

In [93]:
```python
dict
```

Out[93]: `{'Name': 'Manisha', 'DOB': 2002, 'job': 'Data Analyst', 'Id': 55}`

In [97]:
```python
'Name' in dict #membership
```

Out[97]: `True`

In [99]:
```python
35 in dict
```

Out[99]: `False`

In [101…
```python
all(dict)
```

Out[101… `True`

In [103…
```python
any(dict)
```

Out[103… `True`

In [105…
```python
dict['Address']='Hyderabad'
dict
```

Out[105…
```
{'Name': 'Manisha',
 'DOB': 2002,
 'job': 'Data Analyst',
 'Id': 55,
 'Address': 'Hyderabad'}
```

In [107…
```python
dict['experience']=0
dict
```

Out[107…
```
{'Name': 'Manisha',
 'DOB': 2002,
 'job': 'Data Analyst',
 'Id': 55,
 'Address': 'Hyderabad',
 'experience': 0}
```

In [109…
```python
all(dict)
```

```
Out[109...    True
```

```
In [113...    1 in dict
```

```
Out[113...    False
```

```
In [115...    any(dict)
```

```
Out[115...    True
```

```
In [ ]:
```