Dict

In [1]:
```
A={}
type(A)
```

Out[1]: dict

In [2]:
```
A={1,2,3,4,5}
```

In [3]:
```
A
```

Out[3]: {1, 2, 3, 4, 5}

In [4]:
```
B={}
type(B)
```

Out[4]: dict

In [5]:
```
B={4,5,6,7,8}
```

In [6]:
```
B
```

Out[6]: {4, 5, 6, 7, 8}

In [7]:
```
C={}
type(C)
```

Out[7]: dict

In [8]:
```
C={4,5,6,7,8,9,10}
```

In [9]:
```
C
```

Out[9]: {4, 5, 6, 7, 8, 9, 10}

In [10]:
```
print(A)
print(B)
print(C)
```

```
{1, 2, 3, 4, 5}
{4, 5, 6, 7, 8}
{4, 5, 6, 7, 8, 9, 10}
```

In [11]:
```
A.difference(B)
```

Out[11]: {1, 2, 3}

In [12]:
```
A.symmetric_difference(B)
```

Out[12]: {1, 2, 3, 6, 7, 8}

In [13]:
```
s3={}
s3
```

Out[13]: {}

In [14]:
```
type(s3)
```

Out[14]: dict

In [15]:
```
s3={'a','b','m','z'}
```

In [16]:
```
s3
```

Out[16]: {'a', 'b', 'm', 'z'}

In [17]:
```
s3.discard('x')
```

In [18]:
```
s3.discard('z')
```

In [19]:
```
s3
```

Out[19]: {'a', 'b', 'm'}

In [20]:
```
a9={1,2,3,4,5,6,7,8,9}
b9={3,4,5,6,7,8}
c9={10,20,30,40}
```

In [21]:
```
print(a9)
```

```
{1, 2, 3, 4, 5, 6, 7, 8, 9}
```

In [22]:
```
b9.issubset(a9)
```

Out[22]: True

In [23]:
```
a9.issuperset(b9)
```

Out[23]: True

In [24]:
```
c9.issubset(b9)
```

Out[24]: False

In [25]:
```
c9.isdisjoint(b9)
```

Out[25]: True

In [26]:
```
c9.isdisjoint(a9)
```

Out[26]: True

In [27]:
```
a8={1,2,3,4,5,6}
b8={7,8,9}
c8={10,20,30,40}
```

In [28]:
```
a8.issuperset(b8)
```

Out[28]: False

In [29]:
```
b8.issuperset(a8)
```

Out[29]: False

In [30]:
```
c8.isdisjoint(a8)
```

Out[30]: True

Set We are Completed

Dictionary

In [31]:
```
d={}
d
```

Out[31]: {}

In [35]:
```
d={1:'one',2:'two',3:'three',4:'four'}
```

In [36]:
```
d
```

Out[36]: {1: 'one', 2: 'two', 3: 'three', 4: 'four'}

In [38]:
```
d.keys()
```

Out[38]: dict_keys([1, 2, 3, 4])

In [39]:
```
d.values()
```

Out[39]: dict_values(['one', 'two', 'three', 'four'])

In [40]:
```
d.items()
```

Out[40]: dict_items([(1, 'one'), (2, 'two'), (3, 'three'), (4, 'four')])

In [41]:
```
len(d)
```

Out[41]: 4

In [42]:
```
d[1]
```

Out[42]: 'one'

In [43]:
```
d[4]
```

Out[43]: 'four'

In [44]:
```
d.get(1)
```

Out[44]: 'one'

In [45]:
```
d1=d.copy()
```

In [46]:
```
d1
```

Out[46]:
```
{1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

In [48]:
```
d1.pop(1)
```

Out[48]:
```
'one'
```

In [49]:
```
d1
```

Out[49]:
```
{2: 'two', 3: 'three', 4: 'four'}
```

In [50]:
```
d1.popitem()
```

Out[50]:
```
(4, 'four')
```

In [51]:
```
d1
```

Out[51]:
```
{2: 'two', 3: 'three'}
```

In [52]:
```
for i in d:
    print(i)
```

```
1
2
3
4
```

In [53]:
```
for i in d:
    print(i,':',d)
```

```
1 : {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
2 : {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
3 : {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
4 : {1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

In [55]:
```
for i in d:
    print(i,':',d[i])
```

```
1 : one
2 : two
3 : three
4 : four
```

Range

In [56]:
```
range(10)
```

Out[56]:
```
range(0, 10)
```

In [57]:
```
r=range(10)
r
```

Out[57]:
```
range(0, 10)
```

In [59]:
```
for i in r:
    print(i)
```

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

In [60]:
```
list(r)
```

Out[60]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

In [61]:
```
r1=range(10,20)
```

In [62]:
```
r1
```

Out[62]: range(10, 20)

In [63]:
```
list(r1)
```

Out[63]: [10, 11, 12, 13, 14, 15, 16, 17, 18, 19]

In [64]:
```
list(range(0,10))
```

Out[64]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

In [65]:
```
list(range(10,20))
```

Out[65]: [10, 11, 12, 13, 14, 15, 16, 17, 18, 19]

In [66]:
```
list(range(10,100,10))
```

Out[66]: [10, 20, 30, 40, 50, 60, 70, 80, 90]

In [ ]: