In [1]:
```python
a={1,2,3,4,5}
b={4,5,6,7,8}
c={8,9,10}
```

In [2]:
```python
a-c
```

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

In [3]:
```python
c-a
```

Out[3]: `{8, 9, 10}`

In [4]:
```python
a.symmetric_difference(b)
```

Out[4]: `{1, 2, 3, 6, 7, 8}`

In [5]:
```python
a.symmetric_difference(c)
```

Out[5]: `{1, 2, 3, 4, 5, 8, 9, 10}`

In [6]:
```python
b.symmetric_difference(c)
```

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

In [7]:
```python
c^a
```

Out[7]: `{1, 2, 3, 4, 5, 8, 9, 10}`

In [8]:
```python
c^b
```

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

In [9]:
```python
b^a
```

Out[9]: `{1, 2, 3, 6, 7, 8}`

In [12]:
```python
print(a)
print(b)
print(c)
```

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

In [13]:
```python
a.symmetric_difference_update(b)
```

In [14]:
```python
print(a)
print(b)
print(c)
```

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

In [15]:
```python
#intersections
a.intersection(b)
```

Out[15]: {6, 7, 8}

In [16]: `a&b`

Out[16]: {6, 7, 8}

In [17]: `b&c`

Out[17]: {8}

In [18]: `a&b&c`

Out[18]: {8}

In [19]: `c.intersection_update(b)`

In [20]: `print(c)`

{8}

In [21]:
```
a1={1,2,3,4,5,6,7,8,9}
b1={3,4,5,6,7,8}
```

In [22]: `c1={10,11,20,30,40}`

In [23]: `b1.issubset(a1)`

Out[23]: True

In [24]: `a1.issubset(b1)`

Out[24]: False

In [25]: `a1.issuperset(b1)`

Out[25]: True

In [26]: `c1.isdisjoint(a1)`

Out[26]: True

In [28]:
```
a2={15,16,37,58,39}
b2={3,4,5,6,7,8}
c2={10,11,20,30,40}
```

In [29]: `b2.issuperset(a2)`

Out[29]: False

In [30]: `b2.issubset(a2)`

Out[30]: False

In [31]: `c2.isdisjoint(a2)`

Out[31]: True

DICTIONARY

In [32]:
```python
#key-value pairs
#key cannot be duplicates but values can be duplicates
d1={}
```

In [34]:
```python
type(d1)
```

Out[34]: dict

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

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

In [36]:
```python
d2={'one':4,'two':5,'three':6}
d2
```

Out[36]: {'one': 4, 'two': 5, 'three': 6}

In [39]:
```python
d2.keys()
```

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

In [40]:
```python
d2.values()
```

Out[40]: dict_values([4, 5, 6])

In [41]:
```python
d2.items()
```

Out[41]: dict_items([('one', 4), ('two', 5), ('three', 6)])

In [42]:
```python
len(d2)
```

Out[42]: 3

In [44]:
```python
mydict = {1:'one' , 2:'two' , 'A':['nit' , 'fsds' , 'ai']}
mydict
```

Out[44]: {1: 'one', 2: 'two', 'A': ['nit', 'fsds', 'ai']}

In [45]:
```python
mydict = {14:'one' , 4:'two' , 'A':['astrid' , 'juntk' , 'Mariya'], 'B':('Bat' ,
mydict
```

Out[45]: {14: 'one',
          4: 'two',
          'A': ['astrid', 'juntk', 'Mariya'],
          'B': ('Bat', 'cat', 'hat')}

In [46]:
```python
keys = {'h' , 's' , 'r' , 'i'}
mydict3 = dict.fromkeys(keys)
mydict3
```

Out[46]: `{'i': None, 's': None, 'h': None, 'r': None}`

In [ ]:
```python
keys = {'jar' , 'bar' , 'car' , 'dar'}
value = 15
mydict3 = dict.fromkeys(keys , value)
mydict3
```

In [ ]:

In [ ]:

In [ ]: