In [3]:
```python
s={}
s
```

Out[3]: {}

In [5]:
```python
type(s)
```

Out[5]: dict

In [7]:
```python
s1=set()
```

In [9]:
```python
type(s1)
```

Out[9]: set

In [11]:
```python
s1={10,20,30,40}
s1
```

Out[11]: {10, 20, 30, 40}

In [13]:
```python
s2={'mango',10,9.5,2+3j}
s2
```

Out[13]: {(2+3j), 10, 9.5, 'mango'}

In [15]:
```python
s3={'k','v','p'}
s3
```

Out[15]: {'k', 'p', 'v'}

In [17]:
```python
for i in s3:
    print(i)
```

```
k
p
v
```

In [23]:
```python
s3[3]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[23], line 1
----> 1 s3[3]

TypeError: 'set' object is not subscriptable
```

In [25]:
```python
s3.add('t')
s3
```

Out[25]: {'k', 'p', 't', 'v'}

In [27]:
```python
s3.clear()
```

In [29]:
```python
s3
```

```
Out[29]:   set()
```

```
In [31]:   s3=s2.copy()
           s3
```

```
Out[31]:   {(2+3j), 10, 9.5, 'mango'}
```

```
In [33]:   s3.difference(s2)
```

```
Out[33]:   set()
```

```
In [35]:   s4={1,2,3,4}
           s5={5,6,7,8}
           print(s4)
           print(s5)
```

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

```
In [37]:   s4.difference(s5)
```

```
Out[37]:   {1, 2, 3, 4}
```

```
In [45]:   s5.difference(s3)
```

```
Out[45]:   {5, 6, 7, 8}
```

```
In [58]:   s5.difference_update('key')
```

```
In [60]:   s5
```

```
Out[60]:   {5, 6, 7, 8}
```

```
In [62]:   s1.add('one')
           s1.add('two')
           s1
```

```
Out[62]:   {10, 20, 30, 40, 'one', 'two'}
```

```
In [64]:   s1.discard('30')
```

```
In [66]:   s1
```

```
Out[66]:   {10, 20, 30, 40, 'one', 'two'}
```

```
In [68]:   s1.intersection(s2)
```

```
Out[68]:   {10}
```

```
In [70]:   s1.disjoint(s2)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[70], line 1
----> 1 s1.disjoint(s2)

AttributeError: 'set' object has no attribute 'disjoint'
```

```
In [72]: s1.issubset(s2)
```

Out[72]: False

```
In [74]: s4.issuperset(s5)
```

Out[74]: False

```
In [76]: A = {1,2,3,4,5}
         B = {4,5,6,7,8}
         C = {10,20,30,40}
         print(A)
         print(B)
         print(C)
```

```
{1, 2, 3, 4, 5}
{4, 5, 6, 7, 8}
{40, 10, 20, 30}
```

```
In [78]: A-B
```

Out[78]: {1, 2, 3}

```
In [80]: B-A
```

Out[80]: {6, 7, 8}

```
In [82]: A|B #union
```

Out[82]: {1, 2, 3, 4, 5, 6, 7, 8}

```
In [84]: A&B #intersection
```

Out[84]: {4, 5}

```
In [86]: B^C #symmetric
```

Out[86]: {4, 5, 6, 7, 8, 10, 20, 30, 40}

```
In [88]: A.isdisjoint(B)
```

Out[88]: False

```
In [90]: A.pop()
```

Out[90]: 1

```
In [92]: B.pop()
```

Out[92]: 4

```
In [94]: A.symmetric_difference(B)
```

Out[94]: {2, 3, 4, 6, 7, 8}

```
In [96]: A.discard(7)
```

In [98]: A

Out[98]: {2, 3, 4, 5}

In [ ]: