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

In [2]:
```
type(s)
```

Out[2]:
```
dict
```

In [ ]:
```
#to write an empty set write as- v=set()
```

In [2]:
```
s1=set()
```

In [3]:
```
type(s1)
```

Out[3]:
```
set
```

In [4]:
```
s1.add(10)
```

In [5]:
```
s1.add(20)
```

In [6]:
```
s1.add(25)
```

In [7]:
```
s1.add(30)
```

In [8]:
```
s1
```

Out[8]:
```
{10, 20, 25, 30}
```

In [16]:
```
s1[:]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[16], line 1
----> 1 s1[:]

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

In [17]:
```
s1.add([1,2,3])
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[17], line 1
----> 1 s1.add([1,2,3])

TypeError: unhashable type: 'list'
```

In [22]:
```
s2=s1.copy()
```

In [25]:
```
s2.clear()
```

In [26]:
```
s2
```

Out[26]:
```
set()
```

In [32]:
```
s3=set()
```

In [33]:
```
s3.add(1)
```

In [34]:
```
s3.add(3+1j)
```

In [35]:
```
s3.add("raj")
```

In [36]:
```
s3.add(3.125)
```

In [ ]:
```

```

In [43]:
```
s3
```

Out[43]: {(3+1j), 1, 3.125, 'raj'}

In [44]:
```
s3.discard(1)
```

In [45]:
```
s3
```

Out[45]: {(3+1j), 3.125, 'raj'}

In [46]:
```
s3.pop()
```

Out[46]: 3.125

In [47]:
```
for i in s3:
    print(i)
```

```
raj
(3+1j)
```

In [48]:
```
for i in enumerate(s3):
    print(i)
```

```
(0, 'raj')
(1, (3+1j))
```

Set operation

In [2]:
```
a={1,2,3,4,5,6,7}
```

In [3]:
```
b={6,7,8,9}
```

In [4]:
```
c={8,9,10}
```

In [5]:
```
a.union(b)
```

Out[5]: {1, 2, 3, 4, 5, 6, 7, 8, 9}

In [6]:
```
a|b|c
```

Out[6]: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

In [7]:
```
#| is for union
```

In [8]:
```
a.intersection(b)
```

Out[8]: {6, 7}

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

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

In [10]:
```
a^b^c
```

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

In [11]:
```
a.issubset(b)
```

Out[11]: False

In [12]:
```
b.issubset(a)
```

Out[12]: False

In [13]:
```
a.issuperset(b)
```

Out[13]: False

In [14]:
```
d=a.intersection(b)
```

In [15]:
```
d.issubset(a)
```

Out[15]: True

In [16]:
```
a.issuperset(d)
```

Out[16]: True

In [17]:
```
a.difference(b)
```

Out[17]: {1, 2, 3, 4, 5}

In [22]:
```
a.difference_update(b)
```

In [21]:
```
a
```

Out[21]: {1, 2, 3, 4, 5}

In [23]:
```
a.intersection(b)
```

Out[23]: set()

In [24]:
```
a.add(6)
```

In [25]:
```
a.add(7)
```

In [26]:
```
a.intersection(b)
```

Out[26]: {6, 7}

In [28]:
```
a.issuperset(b)
```

Out[28]: False

In [29]:
```
a.symmetric_difference(b)
```

Out[29]: {1, 2, 3, 4, 5, 8, 9}

In [30]:
```
a^b
```

Out[30]: {1, 2, 3, 4, 5, 8, 9}

In [ ]:

In [ ]:

In [ ]:

In [ ]: