In [1]:
```
#A.Adding a single element in a set:-
```

In [2]:
```
#Example-01:
```

In [3]:
```
set1 = {10,True,'Home',9.34,"A",'d','Close it.',9+8j}
set1
```

Out[3]:
```
{(9+8j), 10, 9.34, 'A', 'Close it.', 'Home', True, 'd'}
```

In [4]:
```
set1.add("Hello")
set1
```

Out[4]:
```
{(9+8j), 10, 9.34, 'A', 'Close it.', 'Hello', 'Home', True, 'd'}
```

In [5]:
```
#Example-02:
```

In [6]:
```
set2 = {100,200,300,400,500}
set2
```

Out[6]:
```
{100, 200, 300, 400, 500}
```

In [7]:
```
set2.add(210)
set2
```

Out[7]:
```
{100, 200, 210, 300, 400, 500}
```

In [8]:
```
#Example-03:
```

In [9]:
```
set3 = {'A',"B","C","D",'X'}
set3
```

Out[9]:
```
{'A', 'B', 'C', 'D', 'X'}
```

In [10]:
```
set3.add(200)
set3
```

Out[10]:
```
{200, 'A', 'B', 'C', 'D', 'X'}
```

In [11]:
```
#B.Adding multiple elements in a set:
```

In [12]:
```
#Example-01:
```

In [13]:
```
s1 = {10,20,30,40,50}
s1
```

Out[13]:
```
{10, 20, 30, 40, 50}
```

In [14]:
```
s1.update(["A",34,"B",8.5])
s1
```

Out[14]:
```
{10, 20, 30, 34, 40, 50, 8.5, 'A', 'B'}
```

In [15]:
```
#Example-02:
```

In [16]:
```
s2 = {'Ryan','jebica',"Brite"}
s2
```

Out[16]:
```
{'Brite', 'Ryan', 'jebica'}
```

In [17]:
```
s2.update([80,50,60,"kite",'Sweet'])
s2
```

Out[17]:
```
{50, 60, 80, 'Brite', 'Ryan', 'Sweet', 'jebica', 'kite'}
```

In [18]:
```
#Example-03:
```

In [19]:
```
s3 = {'X',"Y",'Z','f','g',9+7j,True,'Street'}
s3
```

Out[19]:
```
{(9+7j), 'Street', True, 'X', 'Y', 'Z', 'f', 'g'}
```

In [20]:
```
s3.update([23,'P',"Hare",-6+4j])
s3
```

Out[20]:
```
{(-6+4j), (9+7j), 23, 'Hare', 'P', 'Street', True, 'X', 'Y', 'Z', 'f',
'g'}
```

In [21]:
```
#C.Removing an element from a set:
```

In [22]:
```
#Example-01:
```

In [23]:
```
s1
```

Out[23]:
```
{10, 20, 30, 34, 40, 50, 8.5, 'A', 'B'}
```

In [24]:
```
s1.remove(20)
s1
```

Out[24]:
```
{10, 30, 34, 40, 50, 8.5, 'A', 'B'}
```

In [25]:
```
#Example-02:
```

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

Out[26]:
```
{50, 60, 80, 'Brite', 'Ryan', 'Sweet', 'jebica', 'kite'}
```

In [27]:
```
s2.remove("jebica")
s2
```

Out[27]:
```
{50, 60, 80, 'Brite', 'Ryan', 'Sweet', 'kite'}
```

In [28]:
```
#Example-03:
```

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

Out[29]:
```
{(-6+4j), (9+7j), 23, 'Hare', 'P', 'Street', True, 'X', 'Y', 'Z', 'f',
```

```
'g'}
```

In [30]:
```
s3.remove(9+7j)
s3
```

Out[30]:
```
{(-6+4j), 23, 'Hare', 'P', 'Street', True, 'X', 'Y', 'Z', 'f', 'g'}
```

In [31]:
```
#D.Union of sets:
```

In [32]:
```
#Example-01:
```

In [33]:
```
s1
```

Out[33]:
```
{10, 30, 34, 40, 50, 8.5, 'A', 'B'}
```

In [34]:
```
s2
```

Out[34]:
```
{50, 60, 80, 'Brite', 'Ryan', 'Sweet', 'kite'}
```

In [35]:
```
s1.union(s2)
```

Out[35]:
```
{10, 30, 34, 40, 50, 60, 8.5, 80, 'A', 'B', 'Brite', 'Ryan', 'Sweet',
'kite'}
```

In [36]:
```
s2.union(s1)
```

Out[36]:
```
{10, 30, 34, 40, 50, 60, 8.5, 80, 'A', 'B', 'Brite', 'Ryan', 'Sweet',
'kite'}
```

In [37]:
```
#Example-02:
```

In [38]:
```
set1 = {"R","N","M"}
set2 = {"Kepler",'Sun',True,False,"*",'+'}
set1.union(set2)
```

Out[38]:
```
{'*', '+', False, 'Kepler', 'M', 'N', 'R', 'Sun', True}
```

In [39]:
```
set2.union(set1)
```

Out[39]:
```
{'*', '+', False, 'Kepler', 'M', 'N', 'R', 'Sun', True}
```

In [40]:
```
#Example-03:
```

In [41]:
```
st1 = {2+3j,9-2j,True,90,56,86.7,45.2,'Y',"W","Ball",'Goal'}
st2 = {9-2j,6+3j,False,50,90,34.89,45.2,"W","Q","Sale","Goal"}
st1,st2
```

Out[41]:
```
({(2+3j), (9-2j), 45.2, 56, 86.7, 90, 'Ball', 'Goal', True, 'W', 'Y'},
 {(6+3j), (9-2j), 34.89, 45.2, 50, 90, False, 'Goal', 'Q', 'Sale',
'W'})
```

In [42]:
```
st1.union(st2)
```

Out[42]:
```
{(2+3j),
 (6+3j),
 (9-2j),
 34.89,
 45.2,
 50,
 56,
 86.7,
 90,
 'Ball',
 False,
 'Goal',
 'Q',
 'Sale',
 True,
 'W',
 'Y'}
```

In [43]:
```
st2.union(st1)
```

Out[43]:
```
{(2+3j),
 (6+3j),
```

```
(9-2j),
34.89,
45.2,
50,
56,
86.7,
90,
'Ball',
False,
'Goal',
'Q',
'Sale',
True,
'W',
'Y'}
```

In [44]:
```
#E.Intersection of sets:
```

In [45]:
```
#Example-01:
```

In [46]:
```
x1 = {10,20,30,40,50,60}
x2 = {11,10,29,30,45,69,70}
x1,x2
```

Out[46]:
```
({10, 20, 30, 40, 50, 60}, {10, 11, 29, 30, 45, 69, 70})
```

In [47]:
```
x1.intersection(x2)
```

Out[47]:
```
{10, 30}
```

In [48]:
```
x2.intersection(x1)
```

Out[48]:
```
{10, 30}
```

In [49]:
```
#Example-02:
```

In [50]:
```
x3 = {15,23,"A","T","d",'h',True,False,45+34j,65-12j}
```

```
x4 = {17,23,'L',"T",'g','h',True,23-19j,65-12j,-67-2j}
x3,x4
```

Out[50]:
```
({(45+34j), (65-12j), 15, 23, 'A', False, 'T', True, 'd', 'h'},
 {(-67-2j), (23-19j), (65-12j), 17, 23, 'L', 'T', True, 'g', 'h'})
```

In [51]:
```
x3.intersection(x4)
```

Out[51]:
```
{(65-12j), 23, 'T', True, 'h'}
```

In [52]:
```
x4.intersection(x3)
```

Out[52]:
```
{(65-12j), 23, 'T', True, 'h'}
```

In [53]:
```
#Example-03:
```

In [54]:
```
x5 = {"@","$",'9','+',"%",9,12}
x6 = {'!',"-",'$',"+","*","9","7",13,12}
x5,x6
```

Out[54]:
```
({'$', '%', '+', 12, '9', 9, '@'}, {'!', '$', '*', '+', '-', 12, 13,
'7', '9'})
```

In [55]:
```
x5.intersection(x6)
```

Out[55]:
```
{'$', '+', 12, '9'}
```

In [56]:
```
x6.intersection(x5)
```

Out[56]:
```
{'$', '+', 12, '9'}
```