

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

```
Out[1]: {}
```

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

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

```
In [4]: s1=set()  
s1
```

```
Out[4]: set()
```

```
In [5]: type(s1)
```

```
Out[5]: set
```

```
In [7]: s1.add(1)  
s1
```

```
Out[7]: {1}
```

```
In [8]: s1.add(2)  
s1.add(3)  
s1.add(4)  
s1
```

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

```
In [13]: s2=set()  
s2
```

```
Out[13]: set()
```

```
In [17]: s2.add(100)  
s2.add(2.5)  
s2.add(3+4j)  
s2.add(True)  
s2.add('Harsha')  
s2
```

```
Out[17]: {(3+4j), 100, 2.5, 'Harsha', True}
```

```
In [18]: id(s1)==id(s2)
```

```
Out[18]: False
```

```
In [26]: s3=s2.copy()  
s3
```

```
Out[26]: {(3+4j), 100, 2.5, 'Harsha'}
```

```
In [27]: s2==s3
```

Out[27]: True

```
In [28]: s2.pop()
```

Out[28]: 2.5

```
In [29]: s3.remove(100)
s3
```

Out[29]: {(3+4j), 2.5, 'Harsha'}

```
In [31]: s3.discard(2.5)
s3
```

Out[31]: {(3+4j), 'Harsha'}

```
In [32]: for i in s1:
          print(i)
```

1  
2  
3  
4

```
In [33]: for i in enumerate(s1):
          print(i)
```

(0, 1)  
(1, 2)  
(2, 3)  
(3, 4)

```
In [34]: a = {1,2,4,5}
b = {3,6,9,10}
c = {7,8}
a.union(b)
```

Out[34]: {1, 2, 3, 4, 5, 6, 9, 10}

```
In [35]: a | c
```

Out[35]: {1, 2, 4, 5, 7, 8}

```
In [36]: b | c
```

Out[36]: {3, 6, 7, 8, 9, 10}

```
In [37]: a | b | c
```

Out[37]: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

```
In [39]: a.difference(b)
```

Out[39]: {1, 2, 4, 5}

```
In [40]: a.difference(c)
```

Out[40]: {1, 2, 4, 5}

In [41]: `c.difference(a)`

Out[41]: {7, 8}

In [42]: `c.difference(b)`

Out[42]: {7, 8}

In [43]: `c.difference(c)`

Out[43]: `set()`