

Assignment Set

Set

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Set ¶

1. `add()` : Adds an element to the set
2. `update()` : Update the set with the union of this set and others
3. `clear()` : Removes all the elements from the set
4. `remove()` : Removes the specified element
5. `discard()` : Remove the specified item
6. `pop()` : Removes an element from the set
7. `difference()` : Returns a set containing the difference between two or more sets
8. `copy()` : Returns a copy of the set
9. `union()` : Return a set containing the union of sets
10. `intersection()` : Returns a set, that is the intersection of two other sets
11. `symmetric_difference()` : Returns a set with the symmetric differences of two sets

In [90]:

```
set = {1, 2, 3, 4, 5, 6} #Integer  
set
```

Out[90]:

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

In [91]:

```
set1 = {1, "Newton", (1, 2, 3, 4, 5, 6)} #Mixed Data type  
set1
```

Out[91]:

```
{(1, 2, 3, 4, 5, 6), 1, 'Newton'}
```

In [92]:

```
type(set)
```

Out[92]:

```
set
```

In [93]:

```
type(set1)
```

Out[93]:

set

In [94]:

```
#add() : Adds an element to the set  
set1.add("Edison")  
set1
```

Out[94]:

```
{(1, 2, 3, 4, 5, 6), 1, 'Edison', 'Newton'}
```

In [95]:

```
#update() : Update the set with the union of this set and others  
set1.update((7,8,9))  
set1
```

Out[95]:

```
{(1, 2, 3, 4, 5, 6), 1, 7, 8, 9, 'Edison', 'Newton'}
```

In [96]:

```
#remove() : Removes the specified element  
set1.remove("Newton")  
set1
```

Out[96]:

```
{(1, 2, 3, 4, 5, 6), 1, 7, 8, 9, 'Edison'}
```

In [97]:

```
#discard() : Remove the specified item  
set1.discard(7)  
set1
```

Out[97]:

```
{(1, 2, 3, 4, 5, 6), 1, 8, 9, 'Edison'}
```

In [98]:

```
#pop() : Removes an element from the set  
set1.pop()
```

Out[98]:

1

In [99]:

```
#difference() : Returns a set containing the difference between two or more sets
set = {1, 2, 3, 4, 5, 6}
set1 = {1, "Newton", (1, 2, 3,4,5,6)}
set1.difference(set)
```

Out[99]:

```
{(1, 2, 3, 4, 5, 6), 'Newton'}
```

In [100]:

```
#copy() : Returns a copy of the set
set3 = set1.copy()
set3
```

Out[100]:

```
{(1, 2, 3, 4, 5, 6), 1, 'Newton'}
```

In [104]:

```
#union() : Return a set containing the union of sets
set = {1, 2, 3, 4, 5, 6,7,8,9}
set4 = set3.union(set)
set4
```

Out[104]:

```
{(1, 2, 3, 4, 5, 6), 1, 2, 3, 4, 5, 6, 7, 8, 9, 'Newton'}
```

In [108]:

```
#intersection() : Returns a set, that is the intersection of two other sets
set = {1, 2, 3, 4, 5, 6,7,8,9}
set1 = {(4,5,6,7,8,9),1,2,4,5,6}
set6 = set.intersection(set1)
set6
```

Out[108]:

```
{1, 2, 4, 5, 6}
```

In [110]:

```
#symmetric_difference() : Returns a set with the symmetric differences of two sets
set = {1, 2, 3, 4, 5, 6,7,8,9}
set1 = {(4,5,6,7,8,9),1,2,4,5,6}
set7 = set.symmetric_difference(set1)
set7
```

Out[110]:

```
{(4, 5, 6, 7, 8, 9), 3, 7, 8, 9}
```

In []:

