```
system autom dict not set

empty set  == set()
empty dict = {}
empty list =[]
empty tuple =()
```

In [2]:
```python
s1 = {1,4,23,6,8}
s1
```

Out[2]: {1, 4, 6, 8, 23}

In [4]:
```python
type(s1)
```

Out[4]: set

In [6]:
```python
print(type(s1))
```

```
<class 'set'>
```

In [8]:
```python
s2 = {'q','e','a','t','b'}
s2
```

Out[8]: {'a', 'b', 'e', 'q', 't'}

In [10]:
```python
type(s2)
```

Out[10]: set

In [12]:
```python
s1
```

Out[12]: {1, 4, 6, 8, 23}

In [14]:
```python
s1.add(50)
```

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

Out[16]: {1, 4, 6, 8, 23, 50}

In [18]:
```python
s1.add(12,34)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[18], line 1
----> 1 s1.add(12,34)

TypeError: set.add() takes exactly one argument (2 given)
```

```
In [20]:  s1
```

```
Out[20]:  {1, 4, 6, 8, 23, 50}
```

```
In [22]:  s1.add(50)
          s1
```

```
Out[22]:  {1, 4, 6, 8, 23, 50}
```

IN SET DUPLICATES ARE NOT ALLOWED.

```
In [25]:  s3 = s1.copy()
          s3
```

```
Out[25]:  {1, 4, 6, 8, 23, 50}
```

```
In [27]:  s1[0]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[27], line 1
----> 1 s1[0]

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

```
In [31]:  s1[:]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[31], line 1
----> 1 s1[:]

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

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

```
Out[33]:  {1, 4, 6, 8, 23, 50}
```

```
In [35]:  s4= s1.copy()
```

```
In [37]:  s4
```

```
Out[37]:  {1, 4, 6, 8, 23, 50}
```

```
In [39]:  len(s4)
```

```
Out[39]:  6
```

```
In [41]:  id(s4)
```

```
Out[41]:  2466565218912
```

```
In [43]:  id(s1)
```

Out[43]:   2466546382688

In [45]:   ```python
s4.clear()
```

In [47]:   ```python
len(s4)
```

Out[47]:   0

In [49]:   ```python
id(s4)
```

Out[49]:   2466565218912

In [51]:   ```python
s3
```

Out[51]:   {1, 4, 6, 8, 23, 50}

In [53]:   ```python
s2
```

Out[53]:   {'a', 'b', 'e', 'q', 't'}

In [55]:   ```python
del s4
```

In [57]:   ```python
id(s4)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[57], line 1
----> 1 id(s4)

NameError: name 's4' is not defined
```

In [59]:   ```python
s1.count(1)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[59], line 1
----> 1 s1.count(1)

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

In [61]:   ```python
s4 = s1
```

In [63]:   ```python
s4
```

Out[63]:   {1, 4, 6, 8, 23, 50}

In [65]:   ```python
type(s4)
```

Out[65]:   set

In [67]:   ```python
id(s4)
```

Out[67]:   2466546382688

In [69]:   `s5 = {1+3J,5.6,True,'a'}`

In [71]:   `s5`

Out[71]:   `{(1+3j), 5.6, True, 'a'}`

In [73]:   `type(s5)`

Out[73]:   set

In [75]:   `s5.remove(1+3j)`

In [77]:   `s5`

Out[77]:   `{5.6, True, 'a'}`

In [81]:   `s5.remove(True)`

In [84]:   `s5`

Out[84]:   `{5.6, 'a'}`

In [86]:   `s7= [1,4,3,5,6,3,9]`

In [88]:   `s7`

Out[88]:   `[1, 4, 3, 5, 6, 3, 9]`

In [90]:   `type(s7)`

Out[90]:   list

In [92]:   `s7.pop()`

Out[92]:   9

In [94]:   `s7`

Out[94]:   `[1, 4, 3, 5, 6, 3]`

In [96]:   `s7.pop(0)`

Out[96]:   1

In [98]:   `s7`

Out[98]:   `[4, 3, 5, 6, 3]`

In [ ]: