sets

sets are unordered collection of unique element

sets {}

in sets repeated value are not shown bcz it will only contain unique element

```
In [1]:  x={1,2,33,45,6}

         x
```

```
Out[1]:  {1, 2, 6, 33, 45}
```

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

```
Out[2]:  set
```

```
In [3]:  x = {1,1,2,3,1,3,4,5,7,7,9}
         x
```

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

```
In [4]:  x =set()        ## recommended

         type(x)
```

```
Out[4]:  set
```

```
In [5]:  x={}             ## not recommended

         type(x)
```

```
Out[5]:  dict
```

```
In [6]:  x = tuple()

         type(x)
```

```
Out[6]:  tuple
```

```
In [7]:  x= list()

         type(x)
```

```
Out[7]:  list
```

```
In [8]:  x= list()
```

```
x
```

Out[8]: `[]`

In [9]:
```python
x = {1,1,2,3,1,3,4,5,7,7,9}
x
```

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

In [10]:
```python
x[0]
```

```
---------------------------------------------------------------------------
TypeError                                  Traceback (most recent call last)
Input In [10], in <cell line: 1>()
----> 1 x[0]

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

this is not allowed bcz it is not in order

In [11]:
```python
x = {1, 2, 33, 6, "sunny"}

x
```

Out[11]: `{1, 2, 33, 6, 'sunny'}`

In [13]:
```python
x.add(99)
x
```

Out[13]: `{1, 2, 33, 6, 99, 'sunny'}`

In [14]:
```python
A = [1,2,3,5,5,6,6,7,7,7]
A
```

Out[14]: `[1, 2, 3, 5, 5, 6, 6, 7, 7, 7]`

In [16]:
```python
A = set (A)
A
```

Out[16]: `{1, 2, 3, 5, 6, 7}`

In [18]:
```python
A = list(set(A))
A
```

Out[18]: `[1, 2, 3, 5, 6, 7]`

In [19]:
```python
x = {1, 2, 33, 6, "sunny"}
x
```

Out[19]: `{1, 2, 33, 6, 'sunny'}`

Add

append does not work on sets

```
In [20]: x.add(1+2j)

x
```

Out[20]: `{(1+2j), 1, 2, 33, 6, 'sunny'}`

```
In [21]: x.add(-100)
x
```

Out[21]: `{(1+2j), -100, 1, 2, 33, 6, 'sunny'}`

```
In [22]: x.add(-200)
x
```

Out[22]: `{(1+2j), -100, -200, 1, 2, 33, 6, 'sunny'}`

```
In [23]: x.add(40.2)
x
```

Out[23]: `{(1+2j), -100, -200, 1, 2, 33, 40.2, 6, 'sunny'}`

```
In [24]: x.add(20.2)
x
```

Out[24]: `{(1+2j), -100, -200, 1, 2, 20.2, 33, 40.2, 6, 'sunny'}`

Remove

```
In [29]: x.remove(-200)
x
```

Out[29]: `{(1+2j), 1, 2, 20.2, 33, 40.2, 6, 'sunny'}`

```
In [ ]:
```

Addition

Adittion does not work in sets

```
In [30]: A = {1,23,56}
B = {3,89,34}

A+B
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Input In [30], in <cell line: 4>()
      1 A = {1,23,56}
      2 B = {3,89,34}
----> 4 A+B

TypeError: unsupported operand type(s) for +: 'set' and 'set'
```

In [ ]: