Set Data Structure

❖ **If we want to represent a group of unique values as a single entity then we should go for set.**

❖ **Duplicates are not allowed.**

❖ **Insertion order is not preserved.But we can sort the elements.**

❖ **Indexing and slicing not allowed for the set.**

❖ **Heterogeneous elements are allowed.**

❖ **Set objects are mutable i.e once we creates set object we can perform any changes in that object based on our requirement.**

❖ **We can represent set elements within curly braces and with comma seperation**

❖ **We can apply mathematical operations like union,intersection,difference etc on set objects.**

Creation of Set objects:

Eg:

```
1.  s={10,20,30,40}
2.  print(s)
3.  print(type(s))
4.
5.  Output
6.  {40, 10, 20, 30}
7.  <class 'set'>
```

We can create set objects by using set() function

 s=set(any sequence)

Eg 1:

```
1.  l = [10,20,30,40,10,20,10]
2.  s=set(l)
3.  print(s) # {40, 10, 20, 30}
```

Eg 2:

```
1.  s=set(range(5))
2.  print(s) #{0, 1, 2, 3, 4}
```

Note: While creating empty set we have to take special care.
Compulsory we should use set() function.