Set

- Sets are used to store multiple values in a single variable.
- Set is one of 4 built-in data types in Python used to store collections of data.
- A set is a collection of data which is unordered, unchangeable and unindexed.
- Set items are unchangeable, but you can remove items and add new items.
- Sets are denoted by curly brackets.

```
1 thisset = {'meteor','gt650','classic'}
2 thisset
```

```
    {'classic', 'gt650', 'meteor'}
```

Unorderd

- Sets are unordered, so you cannot be sure in which order in which order the items will appear.
- In other words set do not have a defined order.
- Set items can appear in a different order every time you use them, and cannot be reffered to by index or key.

```
1 thisset
```

```
    {'classic', 'gt650', 'meteor'}
```

Unchangeable

- Set items are unchangeable means that we cannot change the items after the set has been created.
- Once set is created, you cannot change its items, but you can remove items and add new items.

Duplicates Not Allowed

- Sets cannot have two items with the same value.
- Duplicate values will not print in the set.

```
1 thisset = {'meteor350','meteor650','gt650','interceptor650','classic350','meteor650'}
2 thisset
```

```
    {'classic350', 'gt650', 'interceptor650', 'meteor350', 'meteor650'}
```

NOTE

- The values True and 1 are considered as the same values in sets and treated as duplicates.

```
1 new_set = {'vaibhav',True,1,2}
2 new_set
```

```
    {2, True, 'vaibhav'}
```

Length of Set

- To determine how many items a set has, use len() function.

```
1 len(thisset)
```

```
    5
```

Set Items - Data Types

- Set items can be of any data type.

```
1 set1 = {'vaibhav','dbda',True,73}
2 set1
```

```
{73, True, 'dbda', 'vaibhav'}
```

▾ Type()

- From Python's perspective, sets are defined as objects with the data type 'set'.

```
1 print(type(set1))
```

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

▾ The set() Constructor

- It is also possible to use set() constructor to make it.

```
1 new_set = set(('CDAC_DBDA',True,73))
2 new_set
```

```
{73, 'CDAC_DBDA', True}
```

```
1
```