List

```
fruits = ['Orange', 'Apple', 'Pear', 'Banana', 'Kiwi', 'Apple', 'Banana']
print(fruits)
```

Output:

```
['Orange', 'Apple', 'Pear', 'Banana', 'Kiwi', 'Apple', 'Banana']
```

List is a comma separated items enclosed in square braces. List is mutable means in list we can change elements. Let's do it.

```
fruits = ['Orange', 'Apple', 'Pear', 'Banana', 'Kiwi', 'Apple', 'Banana']
list[0] = "Grape"
print(fruits)
```

Output:

```
['Grape', 'Apple', 'Pear', 'Banana', 'Kiwi', 'Apple', 'Banana']
```

Methods performed on lists

1. append() - adds an element at the end of the list
2. insert() - adds an element at the specified position
3. extend() - adds the elements of a list (or any iterable), to the end of the current list
4. copy() - returns a copy of the list
5. count() - retuns the number of elements with the specified value
6. clear() - removes all the elements from the list
7. index() - returns the index of the first element with the specified value
8. remove() - removes the item with the specified value
9. pop() - removes the order of the list
10. reverse() - reverses the order of the list
11. sort() - sorts the list

Tuple

```
tuple = ("Aman","Nitin",23,"Ratan",44)
print(tuple)
```

Output:

```
("Aman","Nitin",23,"Ratan",44)
```

Tuple is also a comma separated items but enclosed in round braces. Tuple is immutable means in tuple we can't change the elements. Let's do it.

```
tuple = ("Aman","Nitin",23,"Ratan",44)
tuple[0] = "Shidling"
print(tuple)
```

Output:

You will get error like this

```
TypeError: 'tuple' object does not support item assigned
```

Set

The Set uses a keyword "set" with comma-separated items enclosed with both square & round braces and the set can also be created with curly braces. Set is an unordered collection with no duplicate elements. Curly braces or the set() function can be used to create sets.

Set with curly braces

```
basket = {'apple', 'orange', 'apple', 'pear', 'orange', 'banana','watermelon'}
print(basket)
type(basket)
```

Output:

```
{'banana', 'orange', 'apple', 'pear', 'watermelon'}
set
```

Dictionary

A set of key:value pairs – with the requirement that the keys are unique (within one dictionary). dictionaries are indexed by keys, which can be immutable.

```
1diction_data = {'Name':'Chetan', 'Age':21, 'Height':'5.9 ft', 'Hobby':'Blogging'}
2print(diction_data)
3type(diction_data)
```

Output:

```
1{'Name': 'Chetan', 'Age': 21, 'Height': '5.9 ft', 'Hobby': 'Blogging'}
2dict
```