List

- List is a collection of objects which can be of different data types
- List is created using [] or using list Command & elements are seperated using ','.
- Elements in list can occur more than once.
- List are mutable & therefore can be modified whenever required

Methods in List (List are order changable, allow duplicate value.)

Operator	Description	Syntax
append	Add an item to a list	l1.append(x)
extend	Add items of a list to other list	l1.extend(l2)
insert	Insert an item in a list at a given position.	l1.insert(n,x)
remove	Remove the first occurance of an element	l1.remove(x)
pop	Remove the item at a given position. Removes last element if position is not specified	l1.pop(n)
clear	Removes all items from the list	l1.clear()
index	Returns the position of the element in the list	l1.index(x)
count	Return the number of ~~item~~ times an element occurs in the list	l1.count(x)
Sort	Sort the items of the list	l1.sort()
reverse	reverse the elements of the list	l1.reverse()
copy	Created the copy of the list	l1.copy()

→ List

#①. Replace element of list : Banana ⇒ apple

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
Fruits[1] = "Apple"
Print (Fruits)
==⇒ ['Mango', 'Apple', 'cherry', 'Grapes']
```

#②. Appends Elements to list

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
fruits.append ("Apple")
Print (Fruits)
==⇒ ['Mango', 'Banana', 'cherry', 'Grapes', 'Apple']
```

#③ Extend element to list

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
fruits.extend ([["Apple", "Kiwi"]])
print (Fruits)
==⇒ ['Mango', 'Banana', 'cherry', 'Grapes', 'Apple', 'Kiwi']
```

#④. insert element to list

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
fruits.insert (1, "Apple")
print (Fruits)
==⇒ ['Mango', 'Apple', 'Banana', 'cherry', 'Grapes']
```

#⑤ remove element to list

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
fruits.remove ("Banana")
Print (Fruits)
==⇒ ['Mango', 'cherry', 'Grapes']
```

#⑥. pop element to list

```
fruits = ["Mango", "Banana", "cherry", "Grapes"]
my_fruits = fruits.pop(2)
print (my_fruits)
==⇒ cherry
```

In [29]:
```
# 1. Replace element of list: Banana=> apple
fruits=["Mango","Banana","Cherry","Grapes"]
fruits[1]="Apple"
print(fruits)
```

```
['Mango', 'Apple', 'Cherry', 'Grapes']
```

In [30]:
```
# 2. Appends Element to list
fruits=["Mango","Banana","Cherry","Grapes"]
fruits.append("Apple")
print(fruits)
```

```
['Mango', 'Banana', 'Cherry', 'Grapes', 'Apple']
```

In [31]:
```
# 3. Extend element to list
fruits=["Mango","Banana","Cherry","Grapes"]
fruits.extend(["Apple","Kiwi"])
print(fruits)
```

```
['Mango', 'Banana', 'Cherry', 'Grapes', 'Apple', 'Kiwi']
```

In [32]:
```
# 4. Insert element to list
fruits=["Mango","Banana","Cherry","Grapes"]
fruits.insert(1,"Apple")
print(fruits)
```

```
['Mango', 'Apple', 'Banana', 'Cherry', 'Grapes']
```

In [33]:
```
# 5. remove element to list
fruits=["Mango","Banana","Cherry","Grapes"]
fruits.remove("Banana")
print(fruits)
```

```
['Mango', 'Cherry', 'Grapes']
```

In [35]:
```
# 6. pop element to list
fruits=["Mango","Banana","Cherry","Grapes"]
my_fruits = fruits.pop(2)
print(my_fruits)
```

```
Cherry
```