4.1.1   LIST OPERATIONS:

1. + Operator which concatenates two lists.

>>>list2=[1,2,3,4,5,6,7,8]

>>>list3=['Hello',3.5,'abc',4]

>>>print(list2+list3)

Output

    1,2,3,4,5,6,7,8, 'Hello',3.5,'abc',4

2. * Operator multiples the list to the specific numbers

>>>list2=[1,2,3,4,5,6,7,8]

>>>list2*2

Output

    1,2,3,4,5,6,7,8,1,2,3,4,5,6,7,8

4.1.2 LIST SLICE

       A subsequence of a sequence is called a slice and the operation that extracts a subsequence is called slicing. For slicing we use square brackets [ ]. Two integer values splitted by **(:).**

Syntax:

> **List_Name[Starting_Value : Ending_Value]**

Ex:

>>>a=['a','b','c','d','e']

List	a=	'a'	'b'	'c'	'd'	'e'
Index from Left		0	1	2	3	4
Index from Right		-5	-4	-3	-2	-1

>>> print(a[:]) → ['a', 'b', 'c', 'd', 'e']   *#Prints ALL*

>>> print(a[1:]) → ['b', 'c', 'd', 'e']   #Print from 1st Position to Last Position

>>> print(a[1:3]) → ['b', 'c']   #Print from 1st Position to Last – 1 Position

>>> print(a[:-1]) → ['a', 'b', 'c', 'd']   #Print from Backwards except -1th Position

>>> print(a[1:-1]) → ['b', 'c', 'd']   #Print from 1st Position till -1th Position

4.1.3 LIST METHODS (or) TYPES OF FUNCTIONS IN LIST

*Consider the values of **list a and list b** be*

>>>a=['apple','mango','lime']

>>>b=['grape']

S.No	Name	Syntax	Description	Example
1.	append()	listname.append()	The method append() will add the item to the end of a list	a.append('orange')
2.	insert()	listname.insert(index,item)	This method inserts an item at a particular place and two arguments (index,item)	a.insert(1,'banana')
3.	extend()	listname.extend(item1,item2)	This method is used to combine two list with the items in the argument.	a.extend('grape') (or) a.extend(b)
4.	remove()	listname.remove(item)	This method will remove an item in the list.	a.remove('apple')
5.	pop()	listname.pop(index)	This method returns the item by the index position and removes it.	a.pop(1) >>>mango
6.	index()	listname.index(item)	This method will return index value of list and takes index value as argument.	a.index('lime') >>>2
7.	copy()	dest_list=listname.copy()	This method is used to copy a list to another list.	c=a.copy()

8.	reverse()	listname.reverse()	This method is used to reverse the items in a list.	a.reverse()
9.	count()	listname.count(item)	This method is used to count the duplicate items in the list which takes the item as arguments.	a.count('lime') >>>1
10.	sort()	listname.sort()	This method is used to arrange the list from ascending to descending alphabetically.	a.sort() >>>a=['apple', 'lime', 'mango']
11.	clear()	listname.clear()	This method is used to clear all the values in the list.	a.clear() -->[]