LAB#3

Example#1: Write a program to create a list and then append an element in the existing list.

Solution:

```
mylist=[1,'Ali',2.9]
for i in mylist:
    print(i)
mylist.append('aliskd@yahoo.com')

print('New list is')
for i in mylist:
    print(i)
```

Result:

```
1
Ali
2.9
New list is
1
Ali
2.9
aliskd@yahoo.com
```

Example#2: Remove all the elements from the list:

Solution:

```
mylist=[1,'Ali',2.9]
print(mylist)
mylist.clear()
print('New list is:')
print(mylist)
```

Result:

```
[1, 'Ali', 2.9]
New list is:
[]
```

Example#3: Write a program in order to extend an existing list by concatenating some other list.

Solution:

```
mylist=[1,'Ali',2.9]
print(mylist)
listnew=['abbasali@yahoo.com','6/7']
print(listnew)
mylist.extend(listnew)
print('THe resultant list is:')
print(mylist)
```

Result:

```
[1, 'Ali', 2.9]
['abbasali@yahoo.com', '6/7']
THe resultant list is:
[1, 'Ali', 2.9, 'abbasali@yahoo.com', '6/7']
```

Example#4: Write a program to find the index number of the given element.

Solution:

```
my_list = [10,'saqlain', 20,'70%', 30, 40, 5.5]
element= 'saqlain'
index_of_element = my_list.index(element)
print("The index number of", element, "in the list is:", index_of_element)
```

Result:

```
The index number of saqlain in the list is: 1
```

Example#5: Write a program to insert a new value in the list.

Solution:

```
my_list = [1,'10','Saqlain','70%']
element='Imran'
index_of_element = 1
my_list.insert(index_of_element,element)
print(my_list)
```

Result:

```
[1, 'Imran', '10', 'Saqlain', '70%']
```

Example#6: Write a program to pop an element from the list by using its index number.

Solution:

```
my_list = [1,'10','Saqlain','70%']
popped_element=my_list.pop(1)
print('THe element',popped_element,'has been popped')
print('Now we have',my_list)
```

Result:

```
THe element 10 has been popped
Now we have [1, 'Saqlain', '70%']
```

Example#7: Write a program to remove an element from the list.

Solution:

```
my_list = [1,'10','Saqlain','70%']
element_to_remove=my_list.remove(1)
print('THe element',element_to_remove,'has been removed')
print('Now we have',my_list)
```

Result:

```
THe element None has been removed
Now we have ['10', 'Saqlain', '70%']
```

Note:

Unlike pop function, we could not show the removed element in this program.

Example#8: Write a program to sort a list of elements in ascending order.

Solution:

```
my_list = ['Zehra','Imran','Saqlain','Iram']
my_list.sort()
print('Now we have',my_list)
```

Result:

```
Now we have ['Imran', 'Iram', 'Saqlain', 'Zehra']
```

Class Assignment

Q.1: Write a program to sort a list of elements in reverse order (descending order).

Q.2: Concatenate at least three lists by using extend function.