**PRACTICAL-4**

**AIM:**

**a.** Write a program to create an empty list. Demonstrate the use of the append function to add elements onto the list.

**Source Code:**

my\_list = []

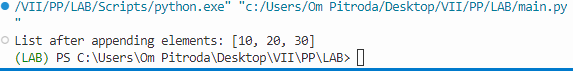
my\_list.append(10)

my\_list.append(20)

my\_list.append(30)

print("List after appending elements:", my\_list)

**Output:**



**b.** Demonstrate the use of the following functions of List Data Structure:

i) Operations on List: copy(), count(), extend(), index(), reverse(), sort()

ii) Manipulating List: append(), insert(), pop(), remove(), clear()

**Source Code:**

sample\_list = [10, 20, 30, 20, 40, 20]

copy\_of\_list = sample\_list.copy()

count\_of\_20 = sample\_list.count(20)

extension\_list = [50, 60]

sample\_list.extend(extension\_list)

index\_of\_30 = sample\_list.index(30)

sample\_list.reverse()

sample\_list.sort()

print("Copy of List:", copy\_of\_list)

print("Count of 20 in List:", count\_of\_20)

print("List after extending with [50, 60]:", sample\_list)

print("Index of 30 in List:", index\_of\_30)

print("List after reversing:", sample\_list)

print("List after sorting:", sample\_list)

sample\_list.append(70)

sample\_list.insert(2, 25)

popped\_element = sample\_list.pop()

sample\_list.remove(20)

sample\_list.clear()

print("List after appending 70:", sample\_list)

print("List after inserting 25 at index 2:", sample\_list)

print("Popped Element:", popped\_element)

print("List after removing the first occurrence of 20:", sample\_list)

print("List after clearing:", sample\_list)

**Output:**

