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Register No: 23MCA1030

Q1. Create two lists of your choice and perform the operations on lists using all built in methods. (Minimum 15 methods, Maximum any number)

```
list1 = [5, 10, 15, 20, 25]
list2 = [30, 25, 20, 15, 10]
print("Registration No : 23MCA1030 \nName : Vinayak Kumar Singh")

print("Displaying List 1")
print(list1)
print("Displaying List 2")
print(list2)

print("1.Adding 30 to the end of list1")
list1.append(30)
print(list1)

print("2.Extended list1 by adding elements from list2")
list1.extend(list2)
print(list1)

print("3.Geting the length of the latest list1")
lengthlist1 = len(list1)
print(lengthlist1)

print("4.Inserting the value 35 at index 2 in list1")
list1.insert(2, 35)
print(list1)

print("5.Removing the first occurrence of value 20 from list1")
list1.remove(20)
print(list1)

print("6.Removing and returning the element at index 4 from list2")
popped_element = list2.pop(4)
print(popped_element)

print("7.Finding the index of value 25 in list1")
index = list1.index(25)
print(index)

print("8.Counting the occurrences of value 15 in the latest list1")
count = list1.count(15)
```

```
print(count)

print("9.Sorting list2 in ascending order")
list2.sort()
print(list2)

print("10.Reverse the order of elements in the latest list1")
list1.reverse()
print(list1)

print("11.Creating a copy of list1 and printing it")
list1copy = list1.copy()
print(list1copy)

print("12.Removing all elements from list2")
list2.clear()
print(list2)

print("13.Finding the maximum value in latest list1")
maxvalue = max(list1)
print(maxvalue)

print("14.Finding the minimum value in latest list1")
minvalue = min(list1)
print(minvalue)

print("15.Calculating the sum of all elements in latest list1")
sumlist1 = sum(list1)
print(sumlist1)

print("16.Creating a sublist from index 2 to 7 in list1")
sublist = list1[2:7]
print(sublist)
```

OUTPUT OF QUESTION 1:

```
Microsoft Windows [Version 10.0.22621.2134]
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D:\MCA\6. Python Programming + LAB>python -u "d:\MCA\6. Python Programming + LAB\LAB\test2.py"
Registration No : 23MCA1030
Name : Vinayak Kumar Singh
Displaying List 1
[5, 10, 15, 20, 25]
Displaying List 2
[30, 25, 20, 15, 10]
1.Adding 30 to the end of list1
[5, 10, 15, 20, 25, 30]
2.Extended list1 by adding elements from list2
[5, 10, 15, 20, 25, 30, 30, 25, 20, 15, 10]
3.Geting the length of the latest list1
11
4.Inserting the value 35 at index 2 in list1
[5, 10, 35, 15, 20, 25, 30, 30, 25, 20, 15, 10]
5.Removing the first occurrence of value 20 from list1
[5, 10, 35, 15, 25, 30, 30, 25, 20, 15, 10]
6.Removing and returning the element at index 4 from list2
10
7.Finding the index of value 25 in list1
4
8.Counting the occurrences of value 15 in the latest list1
2
9.Sorting list2 in ascending order
[15, 20, 25, 30]
10.Reverse the order of elements in the latest list1
[10, 15, 20, 25, 30, 30, 25, 15, 35, 10, 5]
11.Creating a copy of list1 and printing it
[10, 15, 20, 25, 30, 30, 25, 15, 35, 10, 5]
12.Removing all elements from list2
[]
13.Finding the maximum value in latest list1
35
14.Finding the minimum value in latest list1
5
15.Calculating the sum of all elements in latest list1
220
16.Creating a sublist from index 2 to 7 in list1
[20, 25, 30, 30, 25]
```

D:\MCA\6. Python Programming + LAB>