	Marwadi University **Faculty of Technology** **Department of Information and Communication Technology**	
Sem : 6	**Name : Pushti Depani**	
Day : 97	**Date : 22/1/2023**	**Enrollment No: 92000133018**

CP Club 365 Days Challenge

Programming language – Any language

Problem Statement

https://leetcode.com/problems/merge-two-sorted-lists/

https://leetcode.com/problems/merge-sorted-array/submissions/732235805/

https://github.com/Pushti18/Merge-Two-Sorted-Lists-/tree/main

Your Code:

```cpp
class Solution {
public:
    ListNode* mergeTwoLists(ListNode* list1, ListNode* list2) {
    if(!l1)
        return l2;
    if(!l2)
        return l1;
    // if (!list1 || !list2)
    //   return list1 ? list1 : list2;

    if (list1->val > list2->val)
      swap(list1, list2);
    list1->next = mergeTwoLists(list1->next, list2);
    return list1;
    }
};
```

Output (Screen Shot):

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C++

>

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Understanding about problem:

This problem can be solved using naïve approach or using two pointer. In naïve approach if either of the list is null then return the other one. Compare the variable with the smaller node among the head of the lists. This will append the node and one of the head will be incremented. If list1 value is > list2 value. And after that swap the lists. Then next pointer that will be pointed to the next node. We need to keep iterating till one of the list is completely reversed. Then we need to append the smaller values node from the 2 lists pointers and keep incrementing. At last print list1.

Note: If you can't understand the problem, feel free to contact us and we'll help you. Please don't copy and paste from anywhere.

ALL THE BEST
Team CP Club