

Union of Two Linked Lists

Given two linked lists, your task is to complete the function **makeUnion()**, that returns the union list of two linked lists. This union list should include all the **distinct** elements only and it should be sorted in **ascending** order.

Example 1:

Input:

L1 = 9->6->4->2->3->8

L2 = 1->2->8->6->2

Output:

1 2 3 4 6 8 9

Explanation:

All the distinct numbers from two lists, when sorted forms the list in the output.

Example 2:

Input:

L1 = 1->5->1->2->2->5

L2 = 4->5->6->7->1

Output:

1 2 4 5 6 7

Explanation:

All the distinct numbers from two lists, when sorted forms the list in the output.

Your Task:

The task is to complete the function **makeUnion()** which makes the union of the given two lists and returns the head of the new list.

Expected Time Complexity: $O((N+M)*\text{Log}(N+M))$

Expected Auxiliary Space: $O(N+M)$

Constraints:

$1 \leq N, M \leq 10^4$