

## Leetcode Problem 2. (Easy)

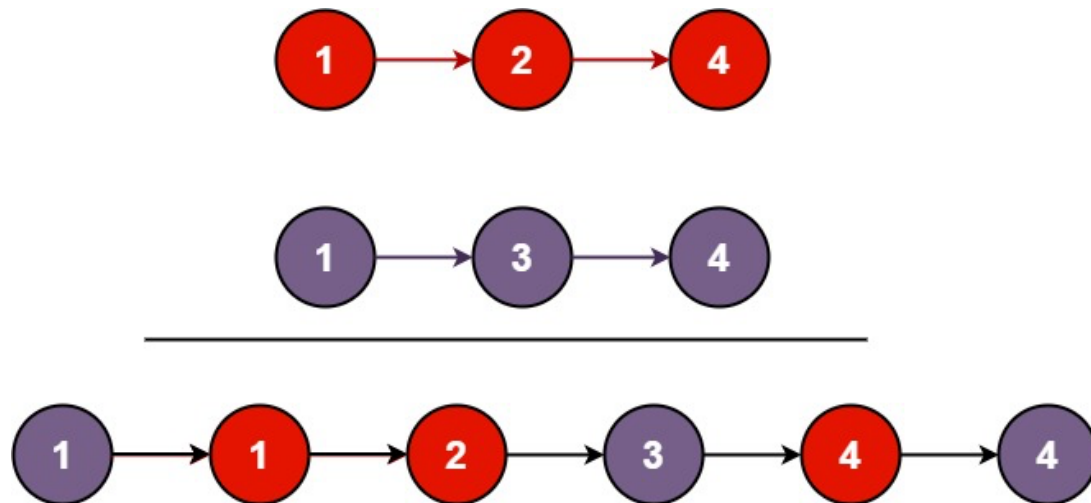
### Merge Two Sorted Lists

You are given the heads of two sorted linked lists `list1` and `list2`.

Merge the two lists in a one **sorted** list. The list should be made by splicing together the nodes of the first two lists.

Return *the head of the merged linked list*.

#### Example 1:



**Input:** `list1 = [1,2,4]`, `list2 = [1,3,4]`

**Output:** `[1,1,2,3,4,4]`

#### Example 2:

**Input:** `list1 = []`, `list2 = []`

**Output:** `[]`

#### Example 3:

**Input:** `list1 = []`, `list2 = [0]`

**Output:** `[0]`

#### Constraints:

- The number of nodes in both lists is in the range `[0, 50]`.
- `-100 <= Node.val <= 100`
- Both `list1` and `list2` are sorted in **non-decreasing** order.

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

```

public class Solution {
    public ListNode mergeTwoLists(ListNode list1, ListNode list2) {
        ListNode mergedList = new ListNode(-1);
        ListNode current = mergedList;

        while (list1 != null && list2 != null)
        {
            if (list1.val <= list2.val) {
                current.next = list1;
                list1 = list1.next;
            } else {
                current.next = list2;
                list2 = list2.next;
            }
            current = current.next;
        }
        if (list1 != null) {
            current.next = list1;
        } else {
            current.next = list2;
        }

        return mergedList.next;
    }
}

```

Problem List

Premium

0

Description

Editorial

Solutions (11K)

Submissions

Accepted

Next question

22. Generate Parentheses

More challenges

23. Merge k Sorted Lists

88. Merge Sorted Array

148. Sort List

All statuses

All languages

Accepted

a few seconds ago

Java

Sakib Rahman

Apr 13, 2023 23:17

Details

+ Solution

Java

Runtime 0 ms

Beats 100%

Memory 42.2 MB

Beats 53.46%

Click the distribution chart to view more details

Notes

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```

/**
 * Definition for singly-linked list.
 * public class ListNode {
 *     int val;
 *     ListNode next;
 *     ListNode() {}
 *     ListNode(int val) { this.val = val; }
 *     ListNode(int val, ListNode next) { this.val = val; this.next = next; }
 * }
 */
public class Solution {
    public ListNode mergeTwoLists(ListNode list1, ListNode list2) {
        ListNode mergedList = new ListNode(-1);

```

Console

Run

Submit