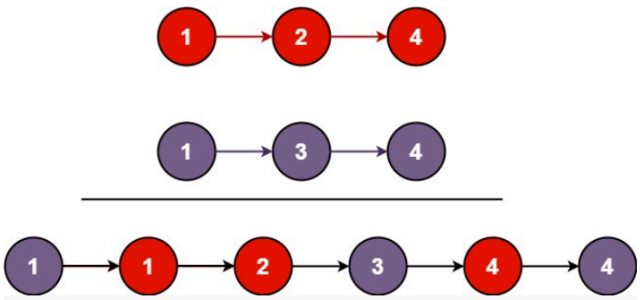
Description | Solution | Discuss (999+) | Submissions

21. Merge Two Sorted Lists

Easy 7361 806 Add to List Share

Merge two sorted linked lists and return it as a **sorted** list. The list should be made by splicing together the nodes of the first two lists.

Example 1:




```
Input: l1 = [1,2,4], l2 = [1,3,4]
Output: [1,1,2,3,4,4]
```

ListNode

Example 2:

```
Input: l1 = [], l2 = []
Output: []
```

Example 3:

```
Input: l1 = [], l2 = [0]
Output: [0]
```

```python
# Definition for singly-linked list.
class ListNode:
    def __init__(self, val=0, next=None):
        self.val = val
        self.next = next

def mergeTwoLists( l1: ListNode, l2: ListNode) -> ListNode:
    dummy_head = ListNode()
    curr = dummy_head
    while l1 and l2:

        if l1.val <= l2.val:
            v=l1.val
            l1=l1.next
        else:
            v=l2.val
            l2=l2.next
        curr.next = ListNode(v)
        curr=curr.next

    if l1:

        curr.next=l1
    else:
        curr.next=l2
    return dummy_head.next
```

- Compare
- retrieve
- update
- create new ListNode
- move cursor

when one ListNode is None

Chain with the left Linked List

easy

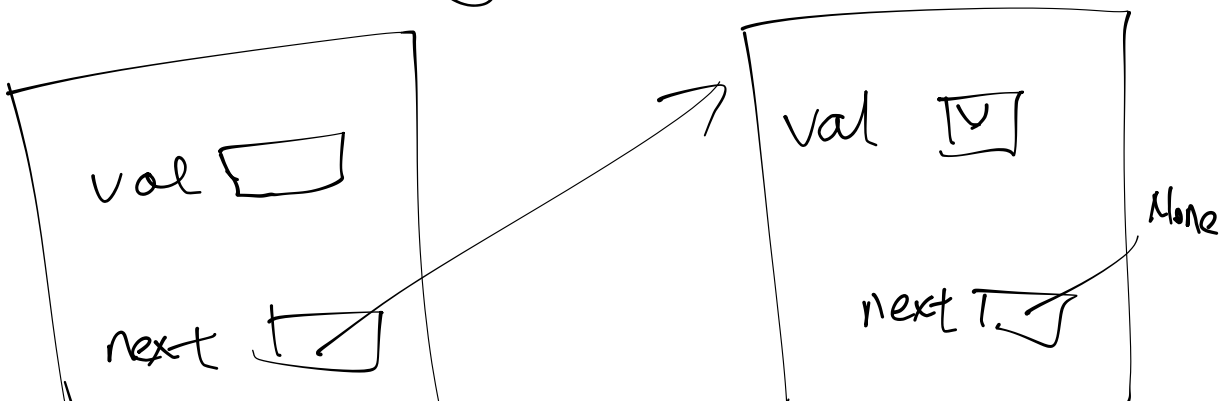
为. 只要两个 linked lists 还都有，

比较此时 l1 和 l2 的 val.

取小的存在 v 中，

创建为 ListNode(v).

移至 curr 的 next 上



- 移动 curr 去 next