# 25. 合并两个排序的链表

[NowCoder](https://www.nowcoder.com/practice/d8b6b4358f774294a89de2a6ac4d9337?tpId=13&tqId=11169&tPage=1&rp=1&ru=/ta/coding-interviews&qru=/ta/coding-interviews/question-ranking&from=cyc_github)

## 题目描述

## 解题思路

### 递归

public ListNode Merge(ListNode list1, ListNode list2) {  
 if (list1 == null)  
 return list2;  
 if (list2 == null)  
 return list1;  
 if (list1.val <= list2.val) {  
 list1.next = Merge(list1.next, list2);  
 return list1;  
 } else {  
 list2.next = Merge(list1, list2.next);  
 return list2;  
 }  
}

### 迭代

public ListNode Merge(ListNode list1, ListNode list2) {  
 ListNode head = new ListNode(-1);  
 ListNode cur = head;  
 while (list1 != null && list2 != null) {  
 if (list1.val <= list2.val) {  
 cur.next = list1;  
 list1 = list1.next;  
 } else {  
 cur.next = list2;  
 list2 = list2.next;  
 }  
 cur = cur.next;  
 }  
 if (list1 != null)  
 cur.next = list1;  
 if (list2 != null)  
 cur.next = list2;  
 return head.next;  
}