
Algorithm 1 Merge Two Sorted Linked Lists

```
1: procedure MERGETWOLISTS(list1, list2)
2:   merged  $\leftarrow$  new ListNode(0)
3:   current  $\leftarrow$  merged
4:   while list1 and list2 do
5:     if list1.val  $\leq$  list2.val then
6:       current.next  $\leftarrow$  list1
7:       list1  $\leftarrow$  list1.next
8:     else
9:       current.next  $\leftarrow$  list2
10:      list2  $\leftarrow$  list2.next
11:      current  $\leftarrow$  current.next
12:   current.next  $\leftarrow$  list1 or list2
13:   return merged.next
```
