

## 148. Sort List

Solved

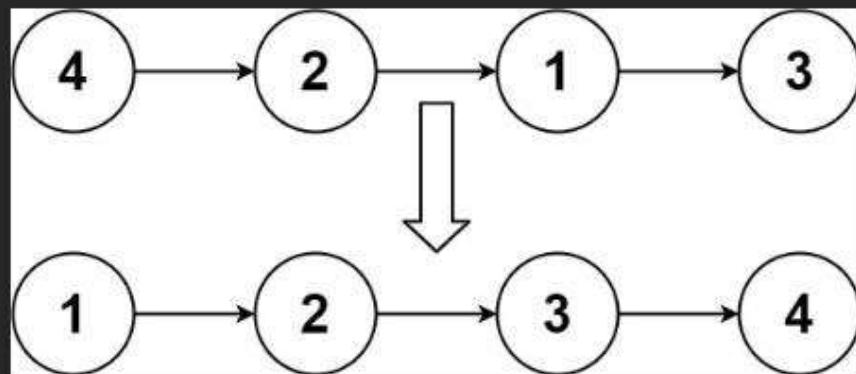
Medium

Topics

Companies

Given the `head` of a linked list, return *the list after sorting it in ascending order*.

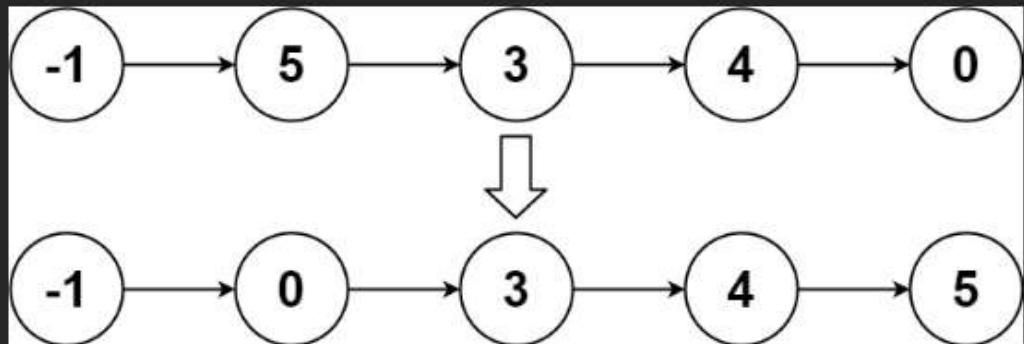
**Example 1:**



**Input:** head = [4,2,1,3]

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

**Example 2:**



**Input:** head = [-1,5,3,4,0]

**Output:** [-1,0,3,4,5]

**Example 3:**

**Input:** head = []

**Output:** []

**Constraints:**

- The number of nodes in the list is in the range  $[0, 5 * 10^4]$ .

```
1  /**
2   * Definition for singly-linked list.
3   * struct ListNode {
4   *     int val;
5   *     struct ListNode *next;
6   * };
7   */
8  struct ListNode* sortList(struct ListNode* head) {
9      int swap;
10     struct ListNode *ptr1;
11     struct ListNode *lptr=NULL;
12     if (head == NULL || head->next == NULL){
13         return head;
14     }
15     do{
16         swap=0;
17         ptr1=head;
18         while(ptr1->next!=lptr){
19             if(ptr1->val > ptr1->next->val){
20                 int temp=ptr1->val;
21                 ptr1->val=ptr1->next->val;
22                 ptr1->next->val=temp;
23                 swap=1;

```

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```
24         }
25         ptr1=ptr1->next;
26     }
27     lptr=ptr1;
28 }while(swap);
29 return head;
30 }
```

Testcase | Test Result

**Accepted** Runtime: 0 ms

Case 1     Case 2     Case 3

**Input**

```
head =  
[4,2,1,3]
```

**Output**

```
[1,2,3,4]
```

**Expected**

```
[1,2,3,4]
```