147. Insertion Sort List

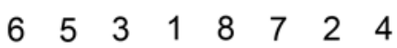
Medium Topics Companies

Given the `head` of a singly linked list, sort the list using **insertion sort**, and return *the sorted list's head*.

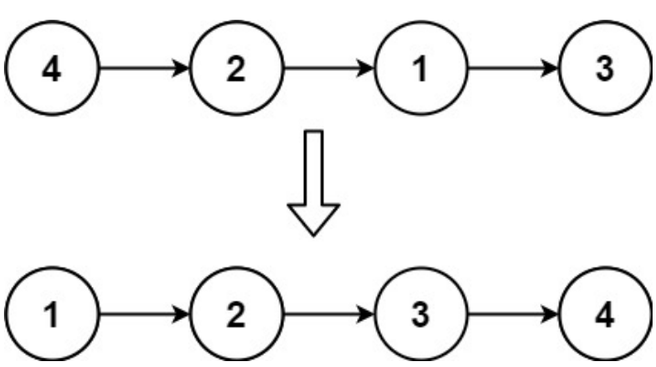
The steps of the **insertion sort** algorithm:

1. Insertion sort iterates, consuming one input element each repetition and growing a sorted output list.
2. At each iteration, insertion sort removes one element from the input data, finds the location it belongs within the sorted list and inserts it
3. It repeats until no input elements remain.

The following is a graphical example of the insertion sort algorithm. The partially sorted list (black) initially contains only the first element in

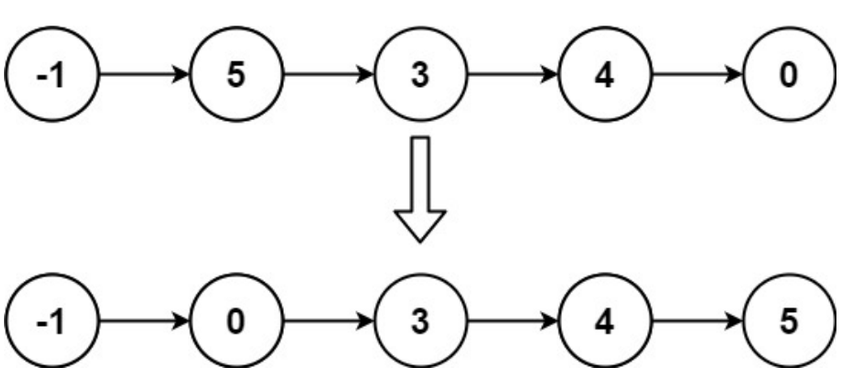


Example 1:




```
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]
```

Constraints:

- The number of nodes in the list is in the range `[1, 5000]`.
- `-5000 <= Node.val <= 5000`