2074. Reverse Nodes in Even Length Groups

My Submissions (/contest/weekly-contest-267/problems/reverse-nodes-in-even-length-groups/submissions/)

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User Accepted:	1923
User Tried:	2443
Total Accepted:	2000
Total Submissions:	5492
Difficulty:	Medium

You are given the `head` of a linked list.

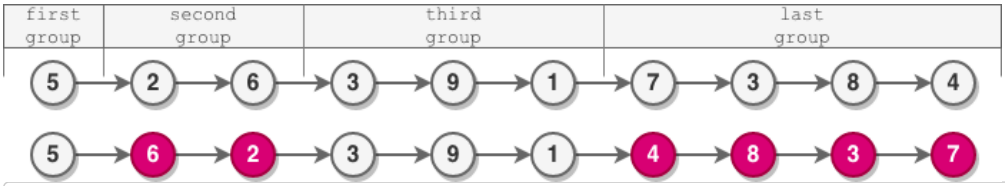
The nodes in the linked list are **sequentially** assigned to **non-empty** groups whose lengths form the sequence of the natural numbers (`1, 2, 3, 4, ...`). The **length** of a group is the number of nodes assigned to it. In other words,

- The 1^{st} node is assigned to the first group.
- The 2^{nd} and the 3^{rd} nodes are assigned to the second group.
- The 4^{th}, 5^{th}, and 6^{th} nodes are assigned to the third group, and so on.

Note that the length of the last group may be less than or equal to `1 + the length of the second to last group` .

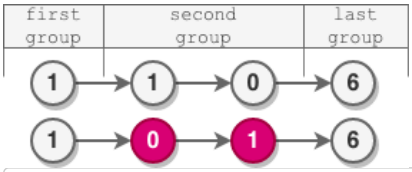
Reverse the nodes in each group with an **even** length, and return *the* `head` *of the modified linked list*.

Example 1:



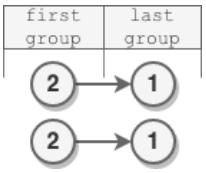

```
Input: head = [5,2,6,3,9,1,7,3,8,4]
Output: [5,6,2,3,9,1,4,8,3,7]
Explanation:
- The length of the first group is 1, which is odd, hence no reversal occurrs.
- The length of the second group is 2, which is even, hence the nodes are reversed.
- The length of the third group is 3, which is odd, hence no reversal occurrs.
- The length of the last group is 4, which is even, hence the nodes are reversed.
```

Example 2:




```
Input: head = [1,1,0,6]
Output: [1,0,1,6]
Explanation:
- The length of the first group is 1. No reversal occurrs.
- The length of the second group is 2. The nodes are reversed.
- The length of the last group is 1. No reversal occurrs.
```

Example 3:



```
Input: head = [2,1]
Output: [2,1]
Explanation:
- The length of the first group is 1. No reversal occurrs.
- The length of the last group is 1. No reversal occurrs.
```

Example 4:

```
Input: head = [8]
Output: [8]
Explanation: There is only one group whose length is 1. No reversal occurrs.
```

Constraints:

- The number of nodes in the list is in the range $[1, 10^5]$.
- $0 <= Node.val <= 10^5$

Discuss (https://leetcode.com/problems/reverse-nodes-in-even-length-groups/discuss)

Java

```java
/**
 * Definition for singly-linked list.
 * public class ListNode {
 *     int val;
 *     ListNode next;
 *     ListNode() {}
 *     ListNode(int val) { this.val = val; }
 *     ListNode(int val, ListNode next) { this.val = val; this.next = next; }
 * }
 */
class Solution {
    public ListNode reverseEvenLengthGroups(ListNode head) {

    }
}
```

Custom Testcase Use Example Testcases

Run Submit