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2095. Delete the Middle Node of a Linked List

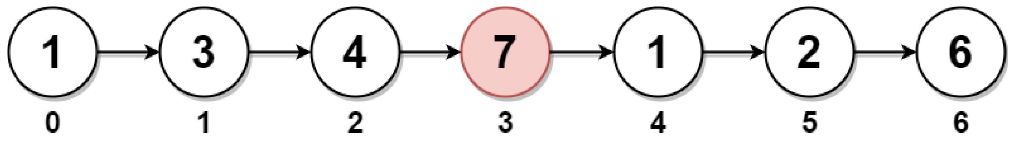
Medium 2161 40 Add to List Share

You are given the `head` of a linked list. **Delete** the **middle node**, and return *the* `head` *of the modified linked list*.

The **middle node** of a linked list of size `n` is the `⌊n / 2⌋`th node from the **start** using **0-based indexing**, where `⌊x⌋` denotes the largest integer less than or equal to `x`.

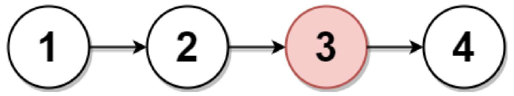
- For `n` = `1`, `2`, `3`, `4`, and `5`, the middle nodes are `0`, `1`, `1`, `2`, and `2`, respectively.

Example 1:



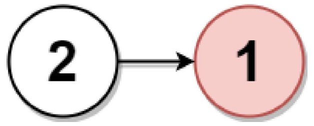
```
Input: head = [1,3,4,7,1,2,6]
Output: [1,3,4,1,2,6]
Explanation:
The above figure represents the given linked list. The indices of the nodes are written below.
Since n = 7, node 3 with value 7 is the middle node, which is marked in red.
We return the new list after removing this node.
```

Example 2:



```
Input: head = [1,2,3,4]
Output: [1,2,4]
Explanation:
The above figure represents the given linked list.
For n = 4, node 2 with value 3 is the middle node, which is marked in red.
```

Example 3:



Java Autocomplete

```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 deleteMiddle(ListNode head) {

        if(head.next == null){
            return null;
        }

        ListNode slowNode = head;
        ListNode fastNode = head.next.next;

        while(fastNode != null && fastNode.next != null){
            slowNode = slowNode.next;
            fastNode = fastNode.next.next;
        }

        slowNode.next = slowNode.next.next;

        return head;
    }
}
```

Testcase Run Code Result Debugger

Accepted Runtime: 0 ms

Your input `[1,3,4,7,1,2,6]`

Output `[1,3,4,1,2,6]` Diff

Expected `[1,3,4,1,2,6]`

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