

5943. Delete the Middle Node of a Linked List

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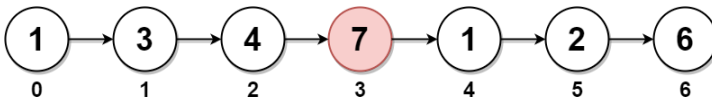
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You are given the **head** of a linked list. **Delete** the **middle node**, and return *the head of the modified linked list*.

The **middle node** of a linked list of size n is the $\lfloor n / 2 \rfloor^{\text{th}}$ node from the **start** using **0-based indexing**, where $\lfloor x \rfloor$ 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:



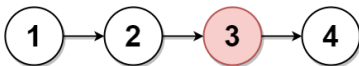
Input: head = [1,3,4,7,1,2,6]

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:



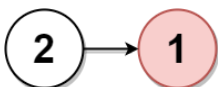
Input: head = [1,2,3,4]

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:



Input: head = [2,1]

Output: [2]

Explanation:

The above figure represents the given linked list. For $n = 2$, node 1 with value 1 is the middle node, which is marked in red. Node 0 with value 2 is the only node remaining after removing node 1.

Constraints:

- The number of nodes in the list is in the range $[1, 10^5]$.
- $1 \leq \text{Node.val} \leq 10^5$

JavaScript




```
1 const getAllData = (list) => {
2   let res = [];
3   let current = list;
4   while (current) {
5     res.push(current.val);
```

```
6         current = current.next;
7     }
8     return res;
9 };
10
11 const createL = (arr) => {
12     let tmp, node = null;
13     let n = arr.length;
14     for (let i = n - 1; ~i; i--) {
15         if (!node) {
16             node = new ListNode(arr[i]);
17         } else {
18             tmp = new ListNode(arr[i]);
19             tmp.next = node;
20             node = tmp;
21         }
22     }
23     return node;
24 };
25
26 const deleteMiddle = (head) => {
27     let a = getAllData(head), n = a.length;
28     let mid = n >> 1;
29     a.splice(mid, 1);
30     return createL(a);
31 };
```

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