[LeetCode](https://leetcode.com/problems/remove-zero-sum-consecutive-nodes-from-linked-list/submissions/1201107943/?envType=daily-question&envId=2024-03-12)

<https://github.com/AdityaKonda6/-50DaysOfCoding>

<https://leetcode.com/problems/remove-zero-sum-consecutive-nodes-from-linked-list/submissions/1201107943/?envType=daily-question&envId=2024-03-12>

<https://www.linkedin.com/in/aditya-adi-konda/>

Day 22 of [#50dayscodingchallenge](https://www.linkedin.com/feed/hashtag/?keywords=50dayscodingchallenge&highlightedUpdateUrns=urn:li:activity:7166316239483461633):  
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Just kicked off my coding journey with a fascinating problem - "Successfully solved LeetCode Problem “1171. Remove Zero Sum Consecutive Nodes from Linked List.” !”  
   
✨ Task: Given the head of a linked list, we repeatedly delete consecutive sequences of nodes that sum to 0 until there are no such sequences.

After doing so, return the head of the final linked list.  You may return any such answer.

Examples:

Example 1:

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

Output: [3,1]

Note: The answer [1,2,1] would also be accepted.

Example 2:

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

Output: [1,2,4]

Example 3:

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

Output: [1]

Let's Connect:

If you find this problem intriguing or have insights to share, let's connect! I'm passionate about problem-solving, algorithmic thinking, and collaborative learning. Feel free to comment or reach out for engaging discussions and knowledge exchange.Unravel the mystery using your coding skills!

[#CodingChallenge](https://www.linkedin.com/feed/hashtag/?keywords=codingchallenge&highlightedUpdateUrns=urn:li:activity:7166316239483461633) [#Algorithm](https://www.linkedin.com/feed/hashtag/?keywords=algorithm&highlightedUpdateUrns=urn:li:activity:7166316239483461633) [#LinkedInPost](https://www.linkedin.com/feed/hashtag/?keywords=linkedinpost&highlightedUpdateUrns=urn:li:activity:7166316239483461633) #Algorithm #Optimization #DataStructures #CodingChallenge  
  
Excited about the progress and challenges ahead!  
   
Make Sure You Follow My GitHub For Solutions: <https://github.com/AdityaKonda6/-50DaysOfCoding>  
  
  
Happy coding!

**Solution:-**

class Solution {

  public ListNode removeZeroSumSublists(ListNode head) {

    ListNode dummy = new ListNode(0, head);

    int prefix = 0;

    Map<Integer, ListNode> prefixToNode = new HashMap<>();

    prefixToNode.put(0, dummy);

    for (; head != null; head = head.next) {

      prefix += head.val;

      prefixToNode.put(prefix, head);

    }

    prefix = 0;

    for (head = dummy; head != null; head = head.next) {

      prefix += head.val;

      head.next = prefixToNode.get(prefix).next;

    }

    return dummy.next;

  }

}

