

328. Odd Even Linked List

Medium

584

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Given a singly linked list, group all odd nodes together followed by the even nodes. Please note here we are talking about the node number and not the value in the nodes.

You should try to do it in place. The program should run in $O(1)$ space complexity and $O(\text{nodes})$ time complexity.

Example 1:

Input: 1->2->3->4->5->NULL

Output: 1->3->5->2->4->NULL

Example 2:

Input: 2->1->3->5->6->4->7->NULL

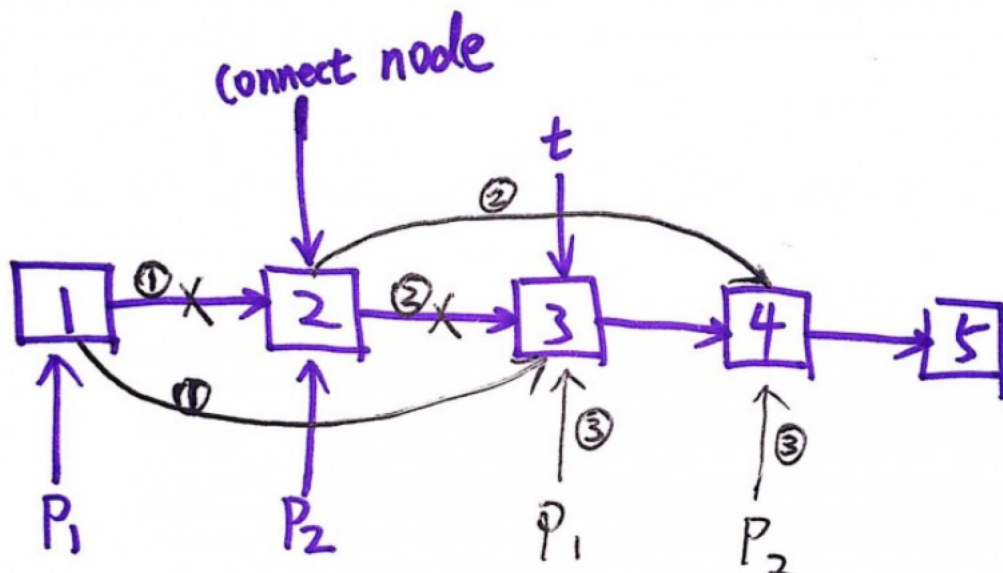
Output: 2->3->6->7->1->5->4->NULL

Note:

- The relative order inside both the even and odd groups should remain as it was in the input.
- The first node is considered odd, the second node even and so on ...

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2
3- /*
4  * 题目是把所有奇数下标节点放在偶数下标节点之后
5  */
6 public class L328 {
7
8-     public class ListNode{
9         int val;
10        ListNode next;
11-        public ListNode(int val) {
12            this.val = val;
13        }
14    }
15
16-    public ListNode oddEvenList(ListNode head) {
17        if(head == null)
18            return head;
19
20        ListNode result = head;
21        ListNode p1 = head;
22        ListNode p2 = head.next;
23        ListNode connectNode = head.next;
24
25        while(p1 != null && p2 != null) {
26            ListNode t = p2.next;
27            if(t == null)
28                break;
29
30            p1.next = p2.next;
31            p1 = p1.next;
32
33            p2.next = p1.next;
34            p2 = p2.next;
35        }
36        p1.next = connectNode;
37        return result;
38    }
39 }
40
```