

31-DS-SEP-2025 | Remove Nth Node From End | Linked List Cycle - LeetCode | Palindrome Linked List - LeetCode | New announcement: "today is..." | +

leetcode.com/problems/linked-list-cycle/ | Accepted | Editorial | Solutions | Submissions

141. Linked List Cycle

Given `head`, the head of a linked list, determine if the linked list has a cycle in it.

There is a cycle in a linked list if there is some node in the list that can be reached again by continuously following the `next` pointer. Internally, `pos` is used to denote the index of the node that tail's `next` pointer is connected to. **Note that `pos` is not passed as a parameter.**

Return `true` if there is a cycle in the linked list. Otherwise, return `false`.

Example 1:

```

graph LR
    3((3)) --> 2((2))
    2 --> 0((0))
    0 --> 4((4))
    4 --> 2

```

Input: head = [3,2,0,-4], pos = 1
Output: true
Explanation: There is a cycle in the linked list, where the tail connects to the 1st node (0-indexed).

Example 2:

```

graph LR
    1((1)) --> 2((2))
    2 --> 1

```

Input: head = [1,2], pos = 0
Output: true
Explanation: There is a cycle in the linked list, where the tail connects to the 0th node.

Example 3:

```

graph LR
    1((1))

```

Input: head = [1], pos = -1
Output: false
Explanation: There is no cycle in the linked list.

Code

```

1 //**
2 // * Definition for singly-linked list.
3 // * struct ListNode {
4 // *     int val;
5 // *     ListNode *next;
6 // *     ListNode(int x) : val(x), next(NULL) {}
7 // * };
8 // */
9 class Solution {
10 public:
11     bool hasCycle(ListNode *head) {
12         if(head==NULL) return 0;
13
14         struct ListNode *slow=head;
15         struct ListNode *fast=head;
16
17         while(fast!=NULL && fast->next!=NULL)
18         {
19             slow=slow->next;
20             fast=fast->next->next;
21
22             if(slow==fast)
23                 return 1;
24         }
25         return 0;
26     }
27 }

```

Testcase | **Test Result**

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input

head =
[3,2,0,-4]

pos =

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17.1% | Tenant: Head - 111 nnc - 11 | TTI Online | 24-11-2025

19. Remove Nth Node From End of List

Example 1:

Input: head = [1,2,3,4,5], n = 2.
Output: [1,2,3,5]

Example 2:

Input: head = [1], n = 1
Output: []

Example 3:

Input: head = [1,2], n = 1
Output: [1]

Constraints:

- The number of nodes in the list is s_2 .

```

1 /**
2  * Definition for singly-linked list.
3  * struct ListNode {
4  *     int val;
5  *     struct ListNode *next;
6  * };
7 */
8 struct ListNode* removeNthFromEnd(struct ListNode* head, int n) {
9     int count=0;
10    struct ListNode *ptr=head;
11    while(ptr!=NULL)
12    {
13        ptr=ptr->next;
14        count++;
15    }
16    if(n==count)
17    {
18        struct ListNode *newHead = head->next;
19        free(head);
20        return newHead;
21    }
22    struct ListNode *temp=head;
23    struct ListNode *prev;
24    for(int j=1;j<(count-n);j++)
25    {
26        temp=temp->next;
27        prev=prev->next;
28    }
29    temp->next=prev->next;
30    free(prev);
31    return head;
32 }
```

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input:
head =
1 2 3 4 5

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Palindrome Linked List - LeetCode

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234. Palindrome Linked List

Solved ✓

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Given the head of a singly linked list, return true if it is a palindrome or false otherwise.

Example 1:

```

graph LR
    N1((1)) --> N2((2))
    N2 --> N3((2))
    N3 --> N4((1))

```

Input: head = [1,2,2,1]
Output: true

Example 2:

```

graph LR
    N1((1)) --> N2((2))

```

Input: head = [1,2]
Output: false

Constraints:

1K likes | 357 dislikes | 127 Online

Code

```

8 bool isPalindrome(struct ListNode* head) {
9     struct ListNode *slow=head,*fast=head,*prev=NULL,
10 *temp;
11     while(fast!=NULL&&fast->next!=NULL){
12         fast=fast->next->next;
13         temp=slow->next;
14         slow->next=prev;
15         prev=slow,slow=temp;
16     }
17     slow=(fast?slow->next:slow);
18     while(slow){
19         if(slow->val!=prev->val) return false;
20         else slow=slow->next,prev=prev->next;
21     }
22     return true;

```

Accepted 95 / 95 testcases passed

Submitted at Nov 24, 2025 22:12

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Runtime
0 ms | Beats 100.00% ✓

Analyze Complexity

Memory
44.77 MB | Beats 48.79%

Testcase | Test Result

Accepted Runtime: 0 ms

Case 1 Case 2

Input
head = [1,2,2,1]

Output
true

Performance Analysis (CPU Usage vs Time)

Time (ms)	CPU Usage (%)
0-10	40-60
10-20	10-20
20-30	5-10
30-70	2-5
70-100	1-2