

Detect cycle in Linked list II

```
/**
 * Definition for singly-linked list.
 * struct ListNode {
 *     int val;
 *     ListNode *next;
 *     ListNode(int x) : val(x), next(NULL) {}
 * };
 */
class Solution {
public:
    ListNode *detectCycle(ListNode *head) {
        ListNode* slow = head;
        ListNode* fast = head;

        while (fast && fast->next) {
            slow = slow->next;
            fast = fast->next->next;

            if (slow == fast) break;
        }

        if (!fast || !fast->next) return nullptr;

        fast = head;
        while (fast != slow) {
            fast = fast->next;
            slow = slow->next;
        }

        return slow;
    }
};
```

Accepted 18 / 18 testcases passed
12ananya submitted at Feb 13, 2025 22:30

Runtime: 7 ms | Beats 68.16%
Memory: 11.34 MB | Beats 53.99%

Bar chart showing runtime performance across different time intervals (3ms to 13ms). The chart indicates that the solution performs well, with a peak in the 7ms to 9ms range.

Code | C++

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class Solution {
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    ListNode *detectCycle(ListNode *head) {
        ListNode* slow = head;
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        while (fast && fast->next) {
            slow = slow->next;
            fast = fast->next->next;

            if (slow == fast) break;
        }

        if (!fast || !fast->next) return nullptr;

        fast = head;
        while (fast != slow) {
            fast = fast->next;
            slow = slow->next;
        }

        return slow;
    }
};
```

Testcase: Case 1
Input: head = [3,2,0,-4]