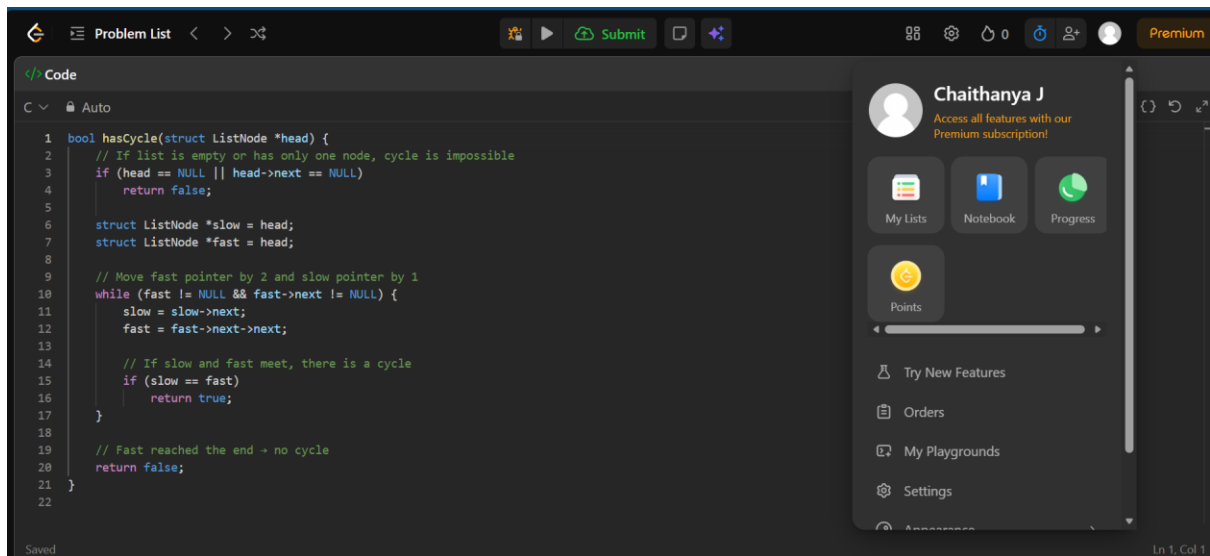


Leetcode:

```
bool hasCycle(struct ListNode *head) {  
    // If list is empty or has only one node, cycle is impossible  
    if (head == NULL || head->next == NULL)  
        return false;  
  
    struct ListNode *slow = head;  
    struct ListNode *fast = head;  
  
    // Move fast pointer by 2 and slow pointer by 1  
    while (fast != NULL && fast->next != NULL) {  
        slow = slow->next;  
        fast = fast->next->next;  
  
        // If slow and fast meet, there is a cycle  
        if (slow == fast)  
            return true;  
    }  
  
    // Fast reached the end → no cycle  
    return false;  
}
```

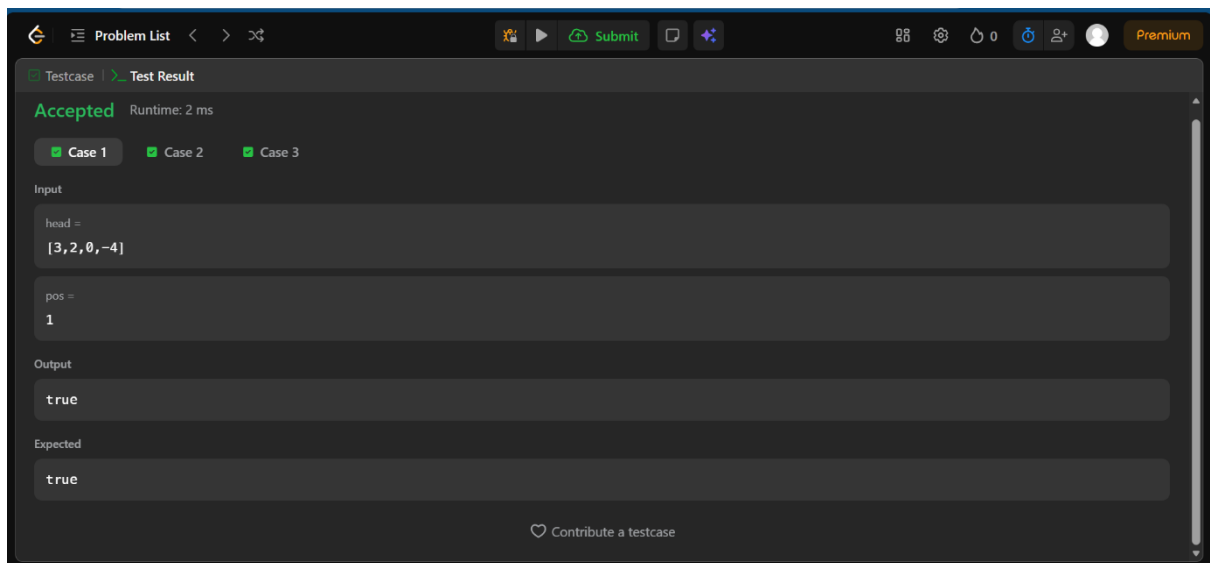


The screenshot shows a code editor with a dark theme. The main area contains a C++ function `bool hasCycle(struct ListNode *head)` that implements Floyd's Cycle-Finding algorithm. The function checks for a cycle in a linked list by using two pointers, `slow` and `fast`. If a cycle exists, the pointers will eventually meet, and the function returns `true`. If no cycle exists, the `fast` pointer will reach the end of the list, and the function returns `false`.

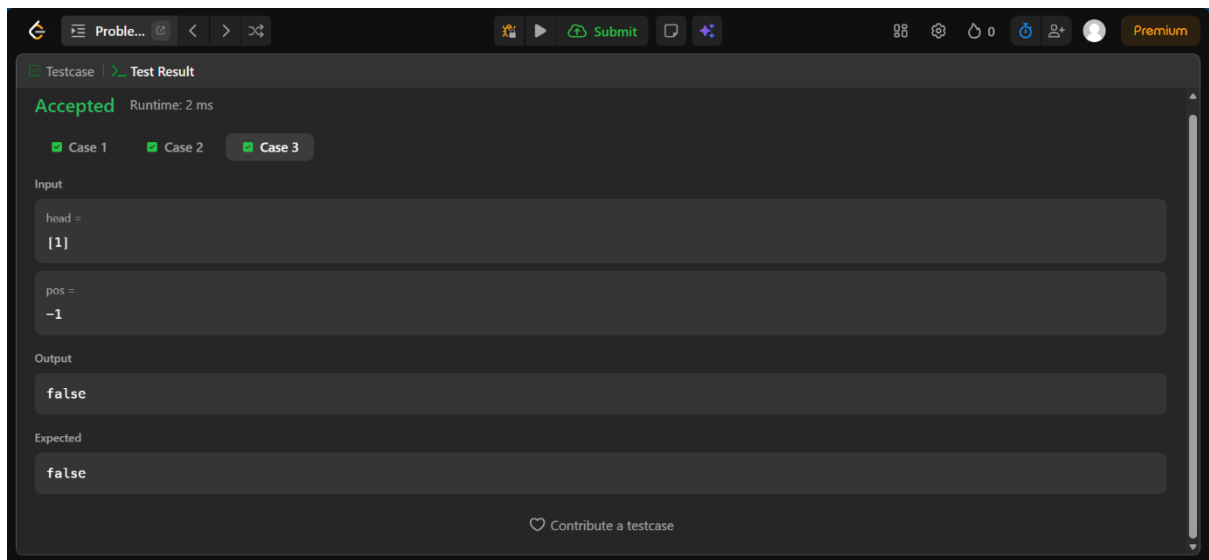
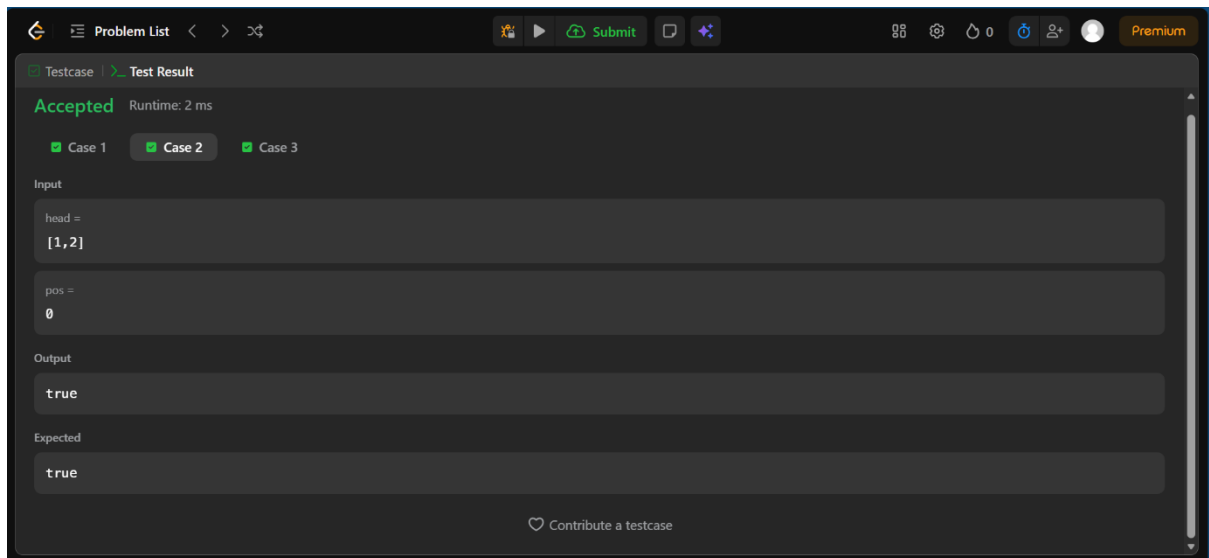
```
1 bool hasCycle(struct ListNode *head) {
2     // If list is empty or has only one node, cycle is impossible
3     if (head == NULL || head->next == NULL)
4         return false;
5
6     struct ListNode *slow = head;
7     struct ListNode *fast = head;
8
9     // Move fast pointer by 2 and slow pointer by 1
10    while (fast != NULL && fast->next != NULL) {
11        slow = slow->next;
12        fast = fast->next->next;
13
14        // If slow and fast meet, there is a cycle
15        if (slow == fast)
16            return true;
17    }
18
19    // Fast reached the end - no cycle
20    return false;
21 }
22
```

On the right side, there is a user sidebar for **Chaithanya J**. It includes a profile picture, a message about premium subscription, and several icons for `My Lists`, `Notebook`, `Progress`, and `Points`. Below these are links for `Try New Features`, `Orders`, `My Playgrounds`, and `Settings`.

OUTPUT:



The screenshot shows a test result page. At the top, it says **Accepted** with a runtime of `2 ms`. Below this, there are three checkboxes for `Case 1`, `Case 2`, and `Case 3`, all of which are checked. The `Input` section shows `head = [3,2,0,-4]` and `pos = 1`. The `Output` section shows `true`. The `Expected` section also shows `true`. At the bottom, there is a link to `Contribute a testcase`.



OBSERVATION:

21/12/25

Prg-7b

Leet code

Page No:

Date:

Linked List Cycle

Code:-

```
bool hasCycle(struct ListNode *head) {  
    if (head == NULL || head->next == NULL)  
        return false;  
  
    struct ListNode* slow = head;  
    struct ListNode* fast = head;  
  
    while (fast != NULL && fast->next != NULL)  
    {  
        slow = slow->next;  
        fast = fast->next->next;  
  
        if (slow == fast)  
            return true;  
    }  
    return false;  
}
```

O/p: If \rightarrow head = [3, 2, 0, -4]

pos = 1

O/p = true.