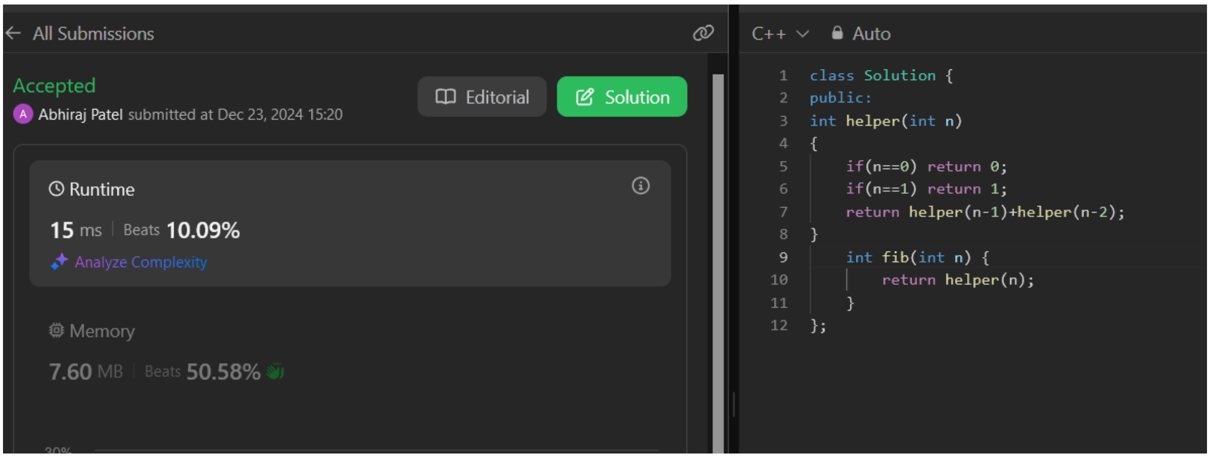
Winter Domain Camp Day-3

Name-Abhiraj Patel UID-22BCS11329 Date-23-12-24

Q1 .Fibonnacci Series Using Recursion



Accepted

Abhiraj Patel submitted at Dec 23, 2024 15:20

Runtime

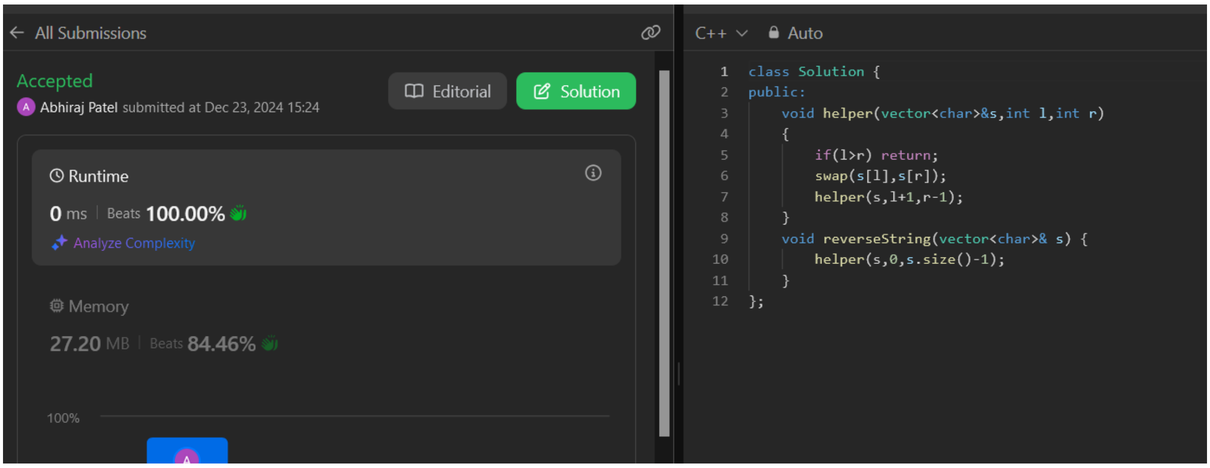
15 ms | Beats 10.09%

Memory

7.60 MB | Beats 50.58%

```cpp
class Solution {
public:
int helper(int n)
{
    if(n==0) return 0;
    if(n==1) return 1;
    return helper(n-1)+helper(n-2);
}
    int fib(int n) {
        return helper(n);
    }
};
```

2.To Find Reverse Of String Using Recursion



Accepted

Abhiraj Patel submitted at Dec 23, 2024 15:24

Runtime

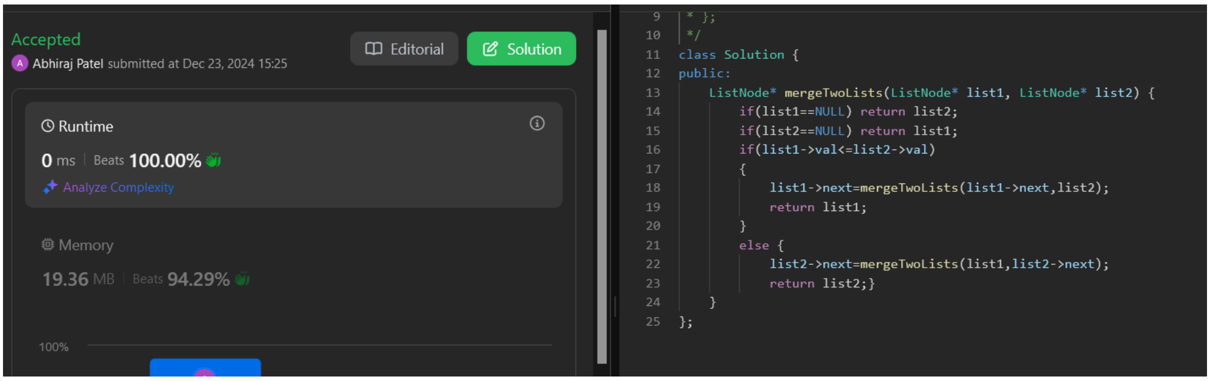
0 ms | Beats 100.00%

Memory

27.20 MB | Beats 84.46%

```cpp
class Solution {
public:
    void helper(vector<char>&s,int l,int r)
    {
        if(l>r) return;
        swap(s[l],s[r]);
        helper(s,l+1,r-1);
    }
    void reverseString(vector<char>& s) {
        helper(s,0,s.size()-1);
    }
};
```

3. Merge Two Sorted Lists



Accepted

Abhiraj Patel submitted at Dec 23, 2024 15:25

Runtime

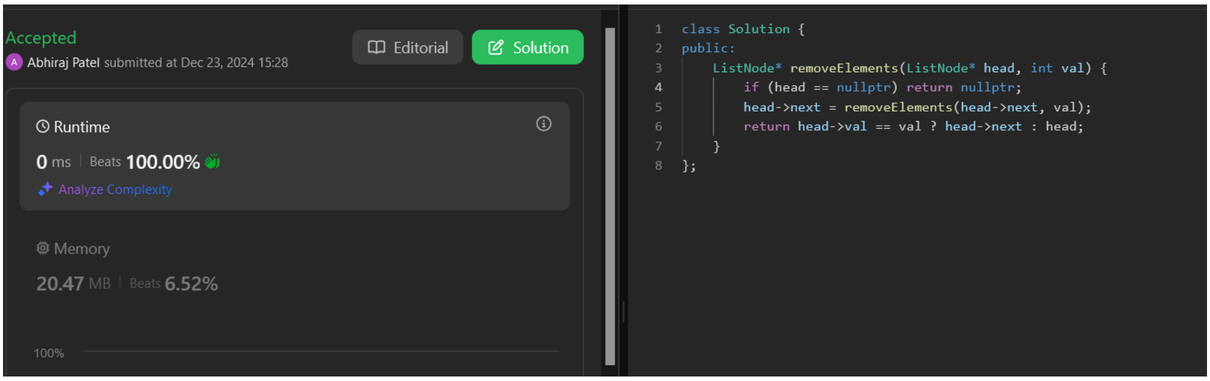
0 ms | Beats 100.00%

Memory

19.36 MB | Beats 94.29%

```
 * };
 */
class Solution {
public:
    ListNode* mergeTwoLists(ListNode* list1, ListNode* list2) {
        if(list1==NULL) return list2;
        if(list2==NULL) return list1;
        if(list1->val<=list2->val)
        {
            list1->next=mergeTwoLists(list1->next,list2);
            return list1;
        }
        else {
            list2->next=mergeTwoLists(list1,list2->next);
            return list2;}
    }
};
```

4. Remove Linked List Elements



Accepted

Abhiraj Patel submitted at Dec 23, 2024 15:28

Runtime

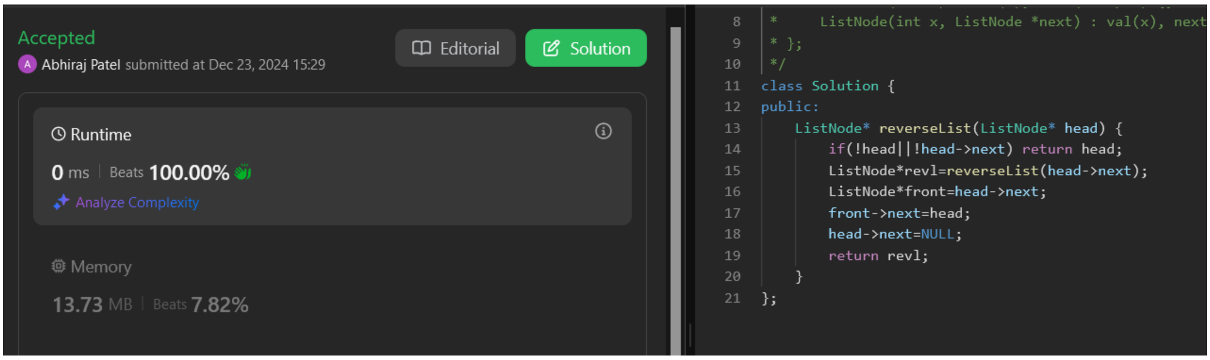
0 ms | Beats 100.00%

Memory

20.47 MB | Beats 6.52%

```
class Solution {
public:
    ListNode* removeElements(ListNode* head, int val) {
        if (head == nullptr) return nullptr;
        head->next = removeElements(head->next, val);
        return head->val == val ? head->next : head;
    }
};
```

5. Reverse Linked List



Accepted

Abhiraj Patel submitted at Dec 23, 2024 15:29

Runtime

0 ms | Beats 100.00%

Memory

13.73 MB | Beats 7.82%

```
 *     ListNode(int x, ListNode *next) : val(x), next
 * };
 */
class Solution {
public:
    ListNode* reverseList(ListNode* head) {
        if(!head||!head->next) return head;
        ListNode*revl=reverseList(head->next);
        ListNode*front=head->next;
        front->next=head;
        head->next=NULL;
        return revl;
    }
};
```