Experiment-1.2

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Subject Name: Competitive Coding II **Subject Code: 20CSP- 351**

Aim – To implement the concept of Arrays, Queues and Stack and Linked List.

Objective-

- The objective is to build problem solving capability and to learn the basic concepts of data structures.
- The implementation of arrays, queues which shows and brushes up the concept of 1D, 2D arrays and can be solved through various approaches.
- The implementation of removing duplicates from the sorted list was introduced.

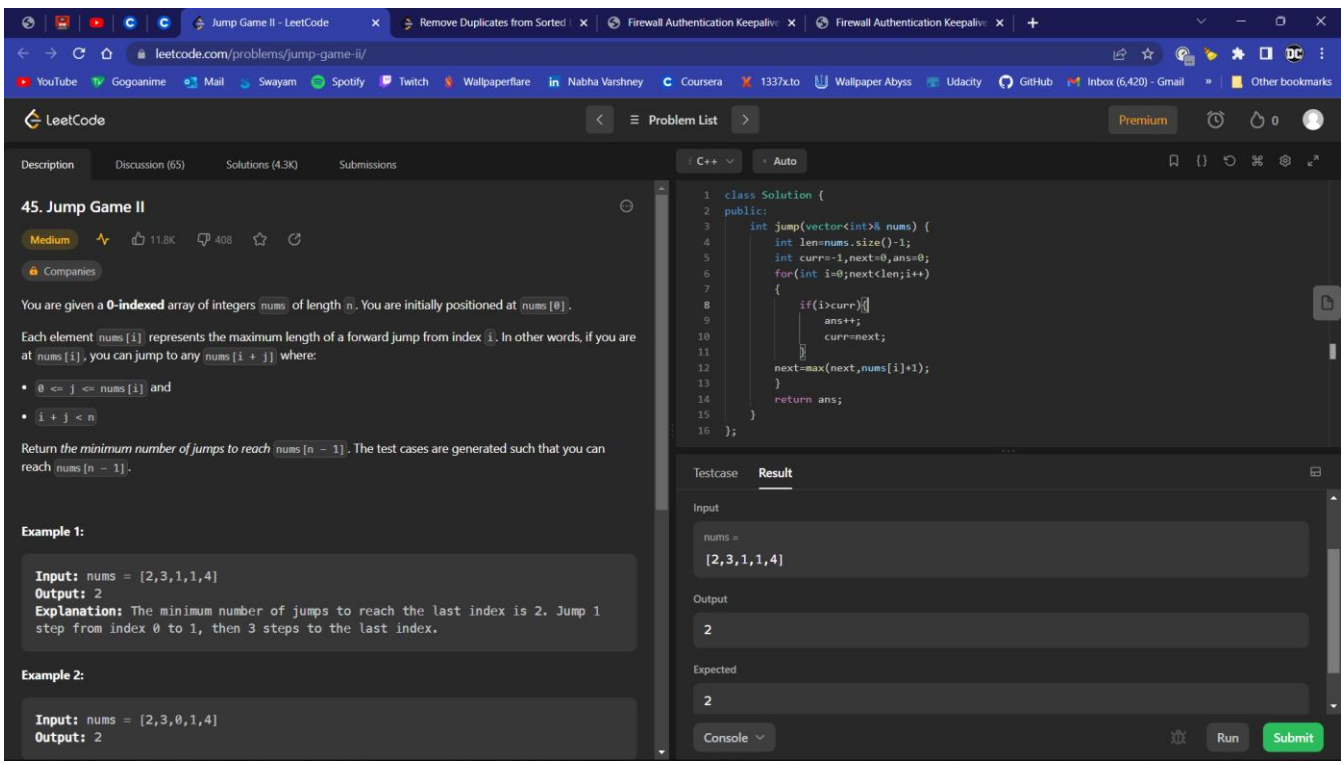
1) Jump Game II
https://leetcode.com/problems/jump-game-ii/

Code –

```
class Solution {
public:
   int jump(vector<int>& nums) {
      int len=nums.size()-1;
      int curr=-1,next=0,ans=0;
      for(int i=0;next<len;i++)
      {
         if(i>curr){
            ans++;
            curr=next;
```

```
            }
        next=max(next,nums[i]+1);
        }
        return ans;
    }
};
```

Output -



2) Remove the duplicate elements from list

https://leetcode.com/problems/remove-duplicates-from-sorted-list-ii/

Code -

```
class Solution {
public:
   ListNode* deleteDuplicates(ListNode* head) {

       if(head==0||head->next==0)return head;
       int flag=0;
       ListNode*prev=0,*cur=head,*nex=head->next,*dummy=0;
         prev=new ListNode;
          dummy=prev;
       prev->next=head;
       while(nex!=0)
       {
          if(cur->val==nex->val)
          {
             prev->next=nex;
             cur=prev->next;
             nex=cur->next;
             flag=1;
          }
          else if(flag==1)
          {
              prev->next=nex;
             cur=prev->next;
             nex=cur->next;
             flag=0;
          }
          else
          {
             prev=prev->next;
             cur=cur->next;
            nex=nex->next;
          }
       }
```

```
        if(flag==1)
          {
              prev->next=0;
          }
        return dummy->next;

    }
};
```

Output -