CHANDIGARH UNIVERSITY
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UNIVERSITY INSTITUTE OF ENGINEERING

Department of Computer Science & Engineering

Subject Name: Competitive Coding 2

Subject Code: 20CSP-351

Submitted to:

Faculty name: Mr. Ankesh Gupta

Submitted by:

Name: Sahil Kaundal

UID: 21BCS8197

Section: 616

Group: A

INDEX

Ex. No	List of Experiments	Conduct (MM: 12)	Viva (MM: 10)	Record (MM: 8)	Total (MM: 30)	Remarks/Signature
1.	Arrays, Stacks, Queues linked list					
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Experiment 1.1

Student Name: Sahil Kaundal
UID: 21BCS8197
Branch: BE CSE (Lateral Entry)
Section/Group: 616/A
Semester: 6th
Date of Performance: 22/02/2023
Subject Name: CC-2 Lab
Subject Code: 20CSP-351

1. **Aim/Overview of the practical:**

   Implement Jump Game-II

You are given a **0-indexed** array of integers nums of length n. You are initially positioned at nums[0]. Each element nums[i] represents the maximum length of a forward jump from index i. In other words, if you are at nums[i], you can jump to any nums[i + j]

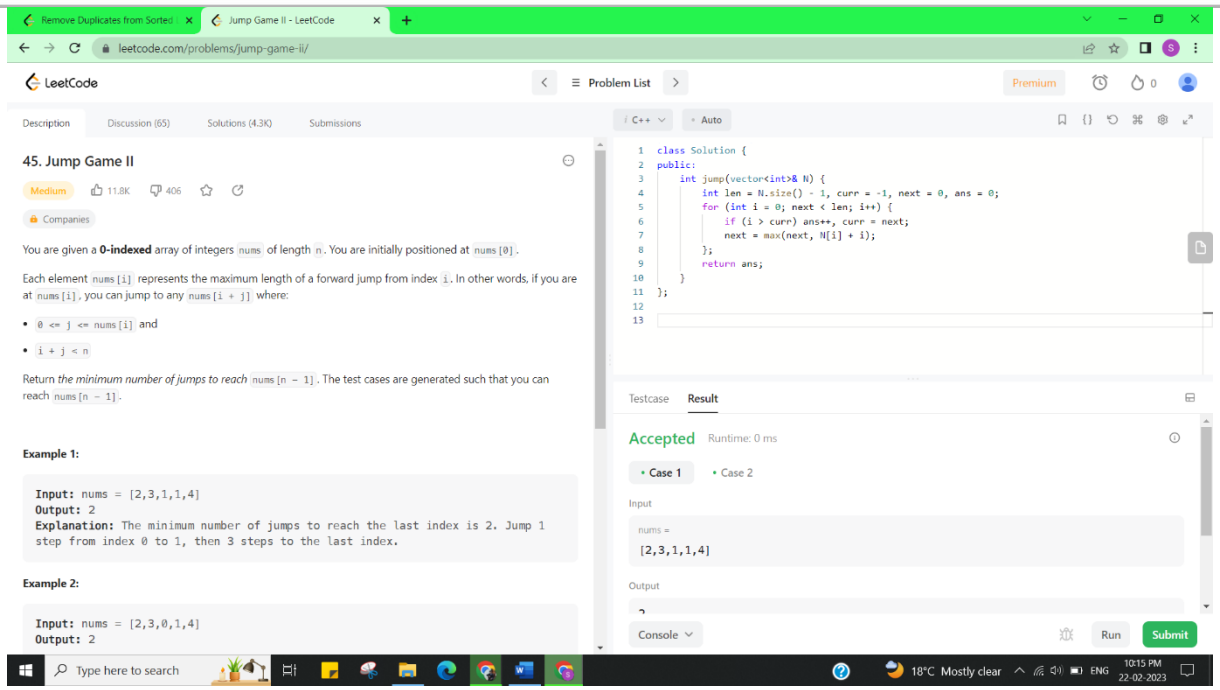
https://leetcode.com/problems/jump-game-ii/

2. **Apparatus / Simulator Used:**
   - Windows 7 or above
   - Google Chrome

3. **Code:**

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

4. **Result/Output/Writing Summary:**



Experiment 1.2

1. **Aim/Overview of the practical:**

   Remove the duplicate elements from list.

   Given the head of a sorted linked list, *delete all nodes that have duplicate numbers, leaving only distinct numbers from the original list*. Return *the linked list **sorted** as well*.

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

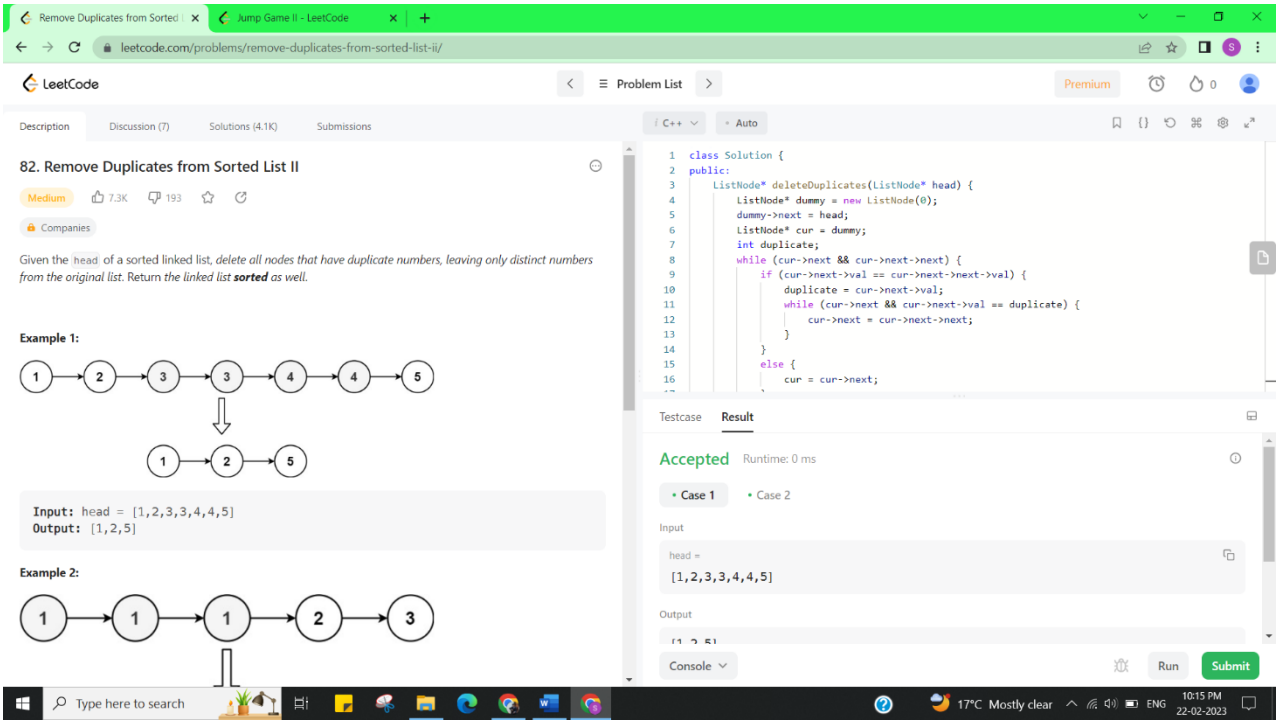
2. **Apparatus / Simulator Used:**
   - Windows 7 or above
   - Google Chrome

3. **Code:**

```
class Solution {
public:
   ListNode* deleteDuplicates(ListNode* head) {
      ListNode* dummy = new ListNode(0);
      dummy->next = head;
      ListNode* cur = dummy;
      int duplicate;
      while (cur->next && cur->next->next) {
         if (cur->next->val == cur->next->next->val) {
```

```
            duplicate = cur->next->val;
            while (cur->next && cur->next->val == duplicate) {
               cur->next = cur->next->next;
            }
         }
         else {
            cur = cur->next;
         }
      }
      return dummy->next;
   }
};
```

4. Result/Output/Writing Summary:



Learning outcomes (What I have learnt):

- Learned the concept of jump game-2.
- Learnt about Remove the duplicate elements from list.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			