Started on	Wednesday, 20 November 2024, 6:12 PM
State	Finished
Completed on	Wednesday, 20 November 2024, 6:55 PM
Time taken	42 mins 36 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Problem statement:

Find the length of the Longest Non-decreasing Subsequence in a given Sequence.

Eg:

Input:9

Sequence:[-1,3,4,5,2,2,2,2,3]

the subsequence is [-1,2,2,2,2,3]

Output:6

Answer: (penalty regime: 0 %)

```c
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int ld(int arr[], int n) {
5      int dp[n];
6      for (int i = 0; i < n; i++) {
7          dp[i] = 1;
8      }
9
10     for (int i = 1; i < n; i++) {
11         for (int j = 0; j < i; j++) {
12             if (arr[j] <= arr[i]) {
13                 dp[i] = dp[i] > dp[j] + 1 ? dp[i] : dp[:
14             }
15         }
16     }
17
18     int ma = dp[0];
19     for (int i = 1; i < n; i++) {
20         if (dp[i] > ma) {
21             ma = dp[i];
22         }
23     }
24
25     return ma;
26  }
27
28  int main() {
29      int n;
30      scanf("%d", &n);
31
32      int arr[n];
33      for (int i = 0; i < n; i++) {
34          scanf("%d", &arr[i]);
35      }
36
37      int result = ld(arr, n);
38      printf("%d\n", result);
39
40      return 0;
41  }
42
```

	Input	Expected	Got	
✔	9 -1 3 4 5 2 2 2 2 3	6	6	✔
✔	7 1 2 2 4 5 7 6	6	6	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 3-DP-Longest Common Subsequence

Jump to...

1-Finding Duplicates-O(n^2) Time Complexity,O(1) Space Complexity ►