Started on	Tuesday, 5 November 2024, 1:36 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 1:58 PM
Time taken	21 mins 21 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
#include<stdio.h>
int lnd(int arr[], int n){
  int dp[n];
  for(int i=0;i<n;i++){
    dp[i]=1;
   }
  for(int i=1;i<n;i++){
   for(int j=0;j<i;j++){
    if(arr[i]>=arr[j]){
     dp[i]=(dp[i] > dp[j]+1)? dp[i] : dp[j]+1;
    }
  }
  }
  int max=dp[0];
  for(int i=1;i<n;i++){
   if(dp[i]>max){
  max=dp[i];
  }
  }
   return max;
}
int main(){
   int n;
   scanf("%d",&n);
   int arr[n];
   for(int i=0;i<n;i++){
   scanf("%d",&arr[i]);
   }
   int result= lnd(arr,n);
  printf("%d",result);
}
```

	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 ►