Started on	Tuesday, 7 October 2025, 7:19 PM
State	Finished
Completed on	Tuesday, 7 October 2025, 8:19 PM
Time taken	1 hour
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

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   int main()
3   {
4       int n,a[100],dp[100],i,j,max=0;
5       scanf("%d",&n);
6       for(i=0;i<n;i++)
7       scanf("%d",&a[i]);
8       for(i=0;i<n;i++)
9       dp[i]=1;
10      for(i=1;i<n;i++)
11      {
12          for(j=0;j<i;j++)
13          {
14              if(a[i]>=a[j]&&dp[i]<dp[j]+1)
15              dp[i]=dp[j]+1;
16          }
17      }
18      for(i=0;i<n;i++)
19      if(dp[i]>max)
20      max=dp[i];
21      printf("%d",max);
22  }
```

	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.