Started on	Wednesday, 8 October 2025, 10:16 PM
State	Finished
Completed on	Wednesday, 8 October 2025, 10:22 PM
Time taken	5 mins 44 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct   Mark 1.00 out of 1.00

Given two strings find the length of the common longest subsequence(need not be contiguous) between the two.

Example:

 s1: ggtabe

 s2: tgatasb

s1	a	g	**g**	t	**a**	**b**

s2	**g**	x	**t**	x	**a**	y	**b**

The length is 4

Solveing it using Dynamic Programming

For example:

Input	Result
aab azb	2

Answer: (penalty regime: 0 %)

```
1   #include<stdio.h>
2   #include<string.h>
3   int max(int a,int b)
4  ▾{
5       return (a>b)?a:b;
6   }
7   int lcs(char *A, char *B, int m, int n)
8  ▾{
9       int arr[m+1][n+1];
10      for(int i=0;i<=m;i++)
11  ▾    {
12          for(int j=0;j<=n;j++)
13  ▾        {
14              if(i==0||j==0)
15  ▾            {
16                  arr[i][j]=0;
17              }
18              else if(A[i-1]==B[j-1])
19  ▾            {
20                  arr[i][j]=arr[i-1][j-1]+1;
21              }
22              else
23  ▾            {
24                  arr[i][j]=max(arr[i-1][j],arr[i][j-1]);
25              }
26          }
27      }
28      return arr[m][n];
29  }
30  int main()
31 ▾{
32      char A[100],B[100];
33      scanf("%s",A);
34      scanf("%s",B);
35      int m=strlen(A);
36      int n=strlen(B);
```

```
36      int n=strlen(B);
37      int result=lcs(A,B,m,n);
38      printf("%d",result);
39      return 0;
40  }
```

	Input	Expected	Got	
✔	aab azb	2	2	✔
✔	ABCD ABCD	4	4	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.