Started on	Thursday, 9 October 2025, 8:50 PM
State	Finished
Completed on	Thursday, 9 October 2025, 9:12 PM
Time taken	22 mins 12 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 %)

```
#include<stdio.h>
#include<string.h>

int longestCommonSubsequence(char*s1,char*s2){
    int m = strlen(s1);
    int n = strlen(s2);
    int dp[m+1][n+1];

    for(int i=0;i<=m;i++)
    {
        for(int j=0;j<=n;j++)
        {
            if(i==0 || j==0)
            {
                dp[i][j] = 0;
            }
            else if(s1[i-1] == s2[j-1])
            {
                dp[i][j]=1+dp[i-1][j-1];
            }
            else
            {
                if(dp[i-1][j]>dp[i][j-1])
                {
                    dp[i][j]=dp[i-1][j];
                }
                else
                {
                    dp[i][j]=dp[i][j-1];
                }
            }
        }
    }
    return dp[m][n];
}
int main()
```

```
int main()
{
    char s1[100],s2[100];
    scanf("%s",s1);
    scanf("%s",s2);
    int result=longestCommonSubsequence(s1,s2);
    printf("%d\n",result);
    return 0;
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.