

**Started on** Monday, 6 October 2025, 3:32 PM

**State** Finished

**Completed on** Monday, 6 October 2025, 3:52 PM

**Time taken** 20 mins 25 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: ggtable

s2: tgatasb

s1	a	g	<b>g</b>	t	a	b	
s2	<b>g</b>	x	<b>t</b>	x	a	y	<b>b</b>

**The length is 4**

Solving it using Dynamic Programming

For example:

Input	Result
aab	2
azb	

**Answer:** (penalty regime: 0 %)

```

1 #include <stdio.h>
2 #include <string.h>
3
4 int longestCommonSubsequence(char*s1,char*s2){
5     int m = strlen(s1);
6     int n = strlen(s2);
7     int dp[m+1][n+1];
8
9     for(int i=0;i<=m;i++)
10    {
11        for(int j=0;j<=n;j++)
12        {
13            if(i==0 || j==0)
14            {
15                dp[i][j] = 0;
16            }
17            else if(s1[i-1] == s2[j-1])
18            {
19                dp[i][j]=1+dp[i-1][j-1];
20            }
21            else
22            {
23                if(dp[i-1][j]>dp[i][j-1])
24                {
25                    dp[i][j]=dp[i-1][j];
26                }
27                else
28                {
29                    dp[i][j]=dp[i][j-1];
30                }
31            }
32        }
33    }
34    return dp[m][n];
35 }
```

```
50     int main() {  
37     {  
38         char s1[100],s2[100];  
39         scanf("%s",s1);  
40         scanf("%s",s2);  
41         int result=longestCommonSubsequence(s1,s2);  
42         printf("%d\n",result);  
43         return 0;  
44     }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.