

VARSHINI S 2024-CSEV2**Started on** Wednesday, 8 October 2025, 8:30 AM**State** Finished**Completed on** Wednesday, 29 October 2025, 8:47 AM**Time taken** 21 days**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	<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 int longestCommonSubsequence(char s1[], char s2[]) {
4     int n = strlen(s1);
5     int m = strlen(s2);
6     int dp[n + 1][m + 1];
7     for (int i = 0; i <= n; i++) {
8         for (int j = 0; j <= m; j++) {
9             if (i == 0 || j == 0)
10                 dp[i][j] = 0;
11             else if (s1[i - 1] == s2[j - 1])
12                 dp[i][j] = dp[i - 1][j - 1] + 1;
13             else
14                 dp[i][j] = (dp[i - 1][j] > dp[i][j - 1]) ? dp[i - 1][j] : dp[i][j - 1];
15         }
16     }
17     return dp[n][m];
18 }
19 int main() {
20     char s1[100], s2[100];
21     scanf("%s", s1);
22     scanf("%s", s2);
23     int length = longestCommonSubsequence(s1, s2);
24     printf("%d\n", length);
25     return 0;
26 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Back to Course](#)