



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	g	x	t	x	a	y	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.

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