



Started on	Wednesday, 8 October 2025, 8:40 AM
State	Finished
Completed on	Wednesday, 8 October 2025, 8:54 AM
Time taken	14 mins 2 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

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	2
azb	

Answer: (penalty regime: 0 %)

```

1  #include <stdio.h>
2  #include <string.h>
3
4  int max(int a, int b) {
5      return (a > b) ? a : b;
6  }
7
8  int lcs(char* s1, char* s2) {
9      int m = strlen(s1);
10     int n = strlen(s2);
11     int dp[m+1][n+1];
12
13     for (int i = 0; i <= m; i++) {
14         for (int j = 0; j <= n; j++) {
15             if (i == 0 || j == 0)
16                 dp[i][j] = 0;
17             else if (s1[i-1] == s2[j-1])
18                 dp[i][j] = dp[i-1][j-1] + 1;
19             else
20                 dp[i][j] = max(dp[i-1][j], dp[i][j-1]);
21         }
22     }
23     return dp[m][n];
24 }
25
26 int main() {
27     char s1[1001], s2[1001];
28     scanf("%s %s", s1, s2);
29     int result = lcs(s1, s2);
30     printf("%d\n", result);
31     return 0;
32 }
33

```

	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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