**RAJALAKSHMI
ENGINEERING
COLLEGE**

🔔⁷ **THIVYASRI T 2024-CSE** ⌄   **T2**

Started on	Wednesday, 15 October 2025, 9:16 AM
State	Finished
Completed on	Wednesday, 15 October 2025, 9:18 AM
Time taken	1 min 34 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	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 main() {
 9      char s1[1000], s2[1000];
10      scanf("%s", s1);
11      scanf("%s", s2);
12
13      int m = strlen(s1);
14      int n = strlen(s2);
15      int dp[m + 1][n + 1];
16
17      for (int i = 0; i <= m; i++) {
18          for (int j = 0; j <= n; j++) {
19              if (i == 0 || j == 0)
20                  dp[i][j] = 0;
21              else if (s1[i - 1] == s2[j - 1])
22                  dp[i][j] = dp[i - 1][j - 1] + 1;
23              else
24                  dp[i][j] = max(dp[i - 1][j], dp[i][j - 1]);
25          }
26      }
27
28      printf("%d", dp[m][n]);
29      return 0;
30  }
31
```

	Input	Expected	Got	
✔	aab azb	2	2	✔

	Input	Expected	Got	
✔	ABCD ABCD	4	4	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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