RAJALAKSHMI ENGINEERING COLLEGE

CHANDRU G S 2024-CSE C2

Started on	Thursday, 23 October 2025, 9:13 PM
State	Finished
Completed on	Sunday, 16 November 2025, 8:15 PM
Time taken	23 days 23 hours
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 azb	2

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
#include <string.h>

int main() {
    char a[1001], b[1001];
    scanf("%s %s", a, b);

    int n = strlen(a), m = strlen(b);
    int dp[n+1][m+1];

    for (int i = 0; i <= n; i++)
        for (int j = 0; j <= m; j++)
            if (i == 0 || j == 0)
                dp[i][j] = 0;
            else if (a[i-1] == b[j-1])
                dp[i][j] = dp[i-1][j-1] + 1;
            else
                dp[i][j] = dp[i-1][j] > dp[i][j-1] ? dp[i-1][j] : dp[i][j-1];

    printf("%d", dp[n][m]);
    return 0;
}

```

	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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