RAJALAKSHMI ENGINEERING COLLEGE

4 Vedhavyas Pavankalyan G L 2023-IT-A V2

Started on	Sunday, 19 October 2025, 5:48 PM
State	Finished
Completed on	Sunday, 19 October 2025, 5:49 PM
Time taken	52 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 azb	2

Answer: (penalty regime: 0 %)

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

int max(int a, int b) {
    return a > b ? a : b;
}

int main() {
    char s1[1000], s2[1000];
    scanf("%s %s", s1, s2);
    int n = strlen(s1), m = strlen(s2);
    int dp[n + 1][m + 1];
    for (int i = 0; i <= n; i++)
        for (int j = 0; j <= m; j++)
            dp[i][j] = 0;
    for (int i = 1; i <= n; i++)
        for (int j = 1; j <= m; j++)
            if (s1[i - 1] == s2[j - 1])
                dp[i][j] = dp[i - 1][j - 1] + 1;
            else
                dp[i][j] = max(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.

Back to Course