RAJALAKSHMI ENGINEERING COLLEGE

VISAANTH M 2024-IT

V2

Started on	Wednesday, 8 October 2025, 2:05 PM
State	Finished
Completed on	Wednesday, 8 October 2025, 2:34 PM
Time taken	29 mins 17 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 %)

```
#include <stdio.h>
#include <string.h>
int max(int a,int b){return a>b?a:b;}
int main(){
    char s1[100],s2[100];
    scanf("%s",s1);
    scanf("%s",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++){
            if(i==0||j==0) dp[i][j]=0;
            else if(s1[i-1]==s2[j-1]) dp[i][j]=1+dp[i-1][j-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.

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