3-DP-Longest Common Subsequence

Started on	Saturday, 18 October 2025, 10:41 AM
State	Finished
Completed on	Saturday, 18 October 2025, 10:53 AM
Time taken	12 mins 1 sec
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00 Flag question

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 longCommon(char *s1,char *s2){
    int l=strlen(s1);
    int m=strlen(s2);
    int d[l+1][m+1];
    for(int i=0;i<=l;i++){
        for(int j=0;j<=m;j++){
            if(i==0 || j==0){
                d[i][j]=0;
            }
            else if(s1[i-1]==s2[j-1]){
                d[i][j]=d[i-1][j-1]+1;
            }
            else{
                d[i][j]=max(d[i-1][j],d[i][j-1]);
            }
        }
    }
    return d[l][m];
}
int main(){
    char s1[100],s2[100];
    scanf("%s",s1);
    scanf("%s",s2);
    int r=longCommon(s1,s2);
    printf("%d",r);
}
```

	Input	Expected	Got	
✔	aab azb	2	2	✔
✔	ABCD ABCD	4	4	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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