Started on	Tuesday, 5 November 2024, 1:40 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 2:00 PM
Time taken	19 mins 29 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 n1,int n2){
    return (n1>n2?n1:n2);
}

int main() {
    char s1[20],s2[20];
    scanf("%s\n%s",s1,s2);
    int m=strlen(s1),n=strlen(s2);
    int dp[m+1][n+1];
    for (int i=0;i<=m;i++){
        for (int j=0;j<=n;j++){
            if (i==0 || j==0)
                dp[i][j]=0;
            else if (s1[j]==s2[j])
                dp[i][j]=1+dp[i-1][j-1];
            else
                dp[i][j]=max(dp[i][j-1],dp[i-1][j]);
        }
    }
    printf("%d",dp[m][n]);
    return 0;
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 2-DP-Playing with chessboard

Jump to...

4-DP-Longest non-decreasing Subsequence ►