Started on	Saturday, 9 November 2024, 9:49 PM
State	Finished
Completed on	Saturday, 9 November 2024, 10:43 PM
Time taken	53 mins 34 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 x, int y){
    return (x>y) ? x : y;
}

int main(){
    char arr[20], brr[20];
    scanf("%s",arr);
    scanf("%s",brr);
    int m = strlen(arr);
    int n = strlen(brr);

    int dp[m+1][n+1];
    for(int i=0 ; i<=n ; i++)
        dp[0][i] = 0;
    for(int j=0 ; j<=m ; j++)
        dp[j][0] = 0;

    for(int i=1 ; i<=m ; i++){
        for(int j=1 ; j<=n ; j++){
            if(arr[i] == brr[j])
                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[m][n]);
}
```

	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.

◄ 2-DP-Playing with chessboard

Jump to...

4-DP-Longest non-decreasing Subsequence ►