

Started on Monday, 6 October 2025, 3:32 PM

State Finished

Completed on Monday, 6 October 2025, 3:52 PM

Time taken 20 mins 25 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	2
azb	

Answer: (penalty regime: 0 %)

```

1  #include <stdio.h>
2  #include <string.h>
3
4  int longestCommonSubsequence(char*s1,char*s2){
5      int m = strlen(s1);
6      int n = strlen(s2);
7      int dp[m+1][n+1];
8
9      for(int i=0;i<=m;i++)
10     {
11         for(int j=0;j<=n;j++)
12         {
13             if(i==0 || j==0)
14             {
15                 dp[i][j] = 0;
16             }
17             else if(s1[i-1] == s2[j-1])
18             {
19                 dp[i][j]=1+dp[i-1][j-1];
20             }
21             else
22             {
23                 if(dp[i-1][j]>dp[i][j-1])
24                 {
25                     dp[i][j]=dp[i-1][j];
26                 }
27                 else
28                 {
29                     dp[i][j]=dp[i][j-1];
30                 }
31             }
32         }
33     }
34     return dp[m][n];
35 }
36 int main()

```

```
36 int main()
37 {
38     char s1[100],s2[100];
39     scanf("%s",s1);
40     scanf("%s",s2);
41     int result=longestCommonSubsequence(s1,s2);
42     printf("%d\n",result);
43     return 0;
44 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.