

**Started on** Thursday, 9 October 2025, 8:10 AM

**State** Finished

**Completed on** Thursday, 9 October 2025, 8:23 AM

**Time taken** 13 mins 28 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	<b>g</b>	t	a	b	
s2	<b>g</b>	x	t	x	a	y	b

**The length is 4**

Solving it using Dynamic Programming

For example:

Input	Result
aab	2
azb	

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 #include<string.h>
3 int main()
```

```

3  int main()
4 {
5     char s1[100], s2[100];
6     int dp[100][100];
7     int m,n;
8     scanf("%s",s1);
9     scanf("%s",s2);
10    m=strlen(s1);
11    n=strlen(s2);
12    for(int i=0;i<=m;i++)
13    {
14        for(int j=0;j<=n;j++)
15        {
16            if(i==0 || j==0)
17                dp[i][j]=0;
18            else if(s1[i-1]==s2[j-1])
19                dp[i][j]=1+dp[i-1][j-1];
20            else
21                dp[i][j]=(dp[i-1][j]>dp[i][j-1])?dp[i-1][j]:dp[i][j-1];
22        }
23    }
24    printf("%d",dp[m][n]);
25 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	aab azb	2	2	✓
✓	ABCD ABCD	4	4	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.