



Dashboard My courses

CS23331-DAA-2024-CSE / 3-DP-Longest Common Subsequence



☑ 3-DP-Longest Common Subsequence

Started on	Sunday, 12 October 2025, 7:02 PM
State	Finished
Completed on	Sunday, 12 October 2025, 7:03 PM
Time taken	45 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100 %)

Given two strings find the length of the common longest subsequence(need not be contiguous) between the two.

Example:

s1: ggtabe

s2: tgatasb

The length is 4

Solveing it using Dynamic Programming

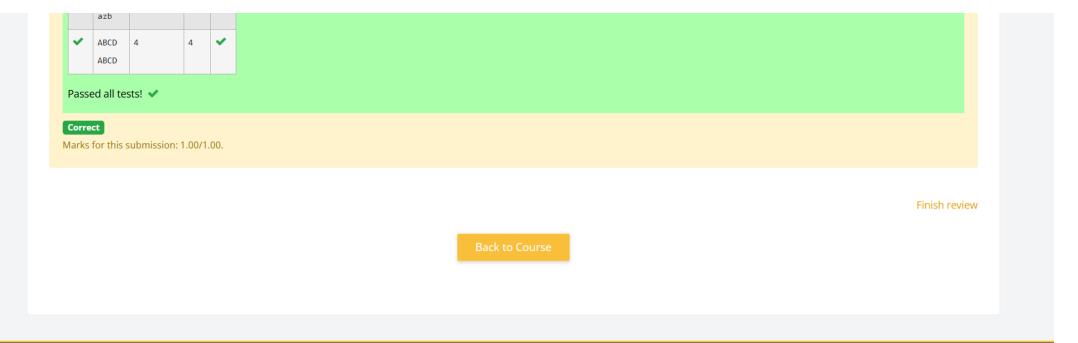
For example:

Input	Result	
aab	2	
azb		

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include <string.h>
4 v int max(int a, int b) {
       return (a > b) ? a : b;
8 v int main() {
        char s1[100], s2[100];
        scanf("%s", s1);
        scanf("%s", s2);
        int m = strlen(s2);
        int dp[n + 1][m + 1];
       for (int i = 0; i \le n; i++) dp[i][0] = 0;
       for (int j = 0; j \le m; j++) dp[0][j] = 0;
18
        for (int i = 1; i \leftarrow n; i++) {
            for (int j = 1; j \leftarrow m; j++) {
                if (s1[i - 1] == s2[j - 1])
                    dp[i][j] = 1 + dp[i - 1][j - 1];
                    dp[i][j] = max(dp[i - 1][j], dp[i][j - 1]);
28
       printf("%d\n", dp[n][m]);
30
        return 0;
31 }
```

	Input	Expected	Got	
~	aab	2	2	~



Data retention summary