

Hw11

Longest Common Subsequence

Part A. Programming (50%)

Use dynamic programming approach to implement a program to find the LCS.

Input: input.txt

Output: output.txt

The program should be named as studentID.c/.cpp

Input format:

5

1 2 5 5 3

1 2 3 1 5

Description:

There are three rows and one end line("\n") in the input file. The first row contains one number n indicating the length of the two sequences and $1 < n \leq 20$. Each sequence contains n numbers and each number is in the range $[1 \dots n]$.

Output format:

3

Output contains one number and one end line("\n"). Please output the length of the longest common subsequence of the two input sequences.

Part B. Report (50%)

- A report should contain the following content:
 - Explain your algorithm clearly.
 - The worst-case running time of your algorithm.

The report should be named as studentID.pdf

The more detail you report; the more scores you can get.