

CSIT 503 HW6

Topic: Dynamic Programming II

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1 Problem Description

Instructions. You are provided one skeleton program named *LCS.java*. The source files are available on Canvas in a folder named *HW6*. Please modify the skeleton code to solve the following tasks.

- Task 1 (100 pts). Implement the *lcs.length()* function as discussed in Lecture 11.
- **Note:** You **should not** return the double-array *b* and *c* as in the pseudocode. Instead, return the length of the longest common subsequence.
- **Hint:** To get the *i*-th character in a string *s*, use *s.charAt(i)*. For example, the code

```
String s = "XYZ";  
System.out.println(s.charAt(1));
```

prints out *Y*.

2 Submission Guideline

1. Work individually.
2. Please directly insert your code in the appropriate place in *LCS.java*.
3. Create a zip file of your .java source programs and submit it on Canvas on time. A late penalty of 10 points for each late day applies. Any late for more than three days receives zero automatically.