CS 1110, LAB 09: RECURSION

First Name: _____ **Last Name**: _____ **NetID**: _____

Updated Mon Mar 26: the amount of work required for check-in has been reduced: see the orange text.

Getting Credit: **As always, strive to finish during the lab session** — it's the best way to stay on track in this course.[1] (But you are getting two weeks for this lab because of Spring Break.)

As usual, create a new directory on your hard drive for this lab's files. Then, download into that new directory the files for lab 09 from http://www.cs.cornell.edu/courses/cs1110/2018sp/labs .

Read the function specifications in lab09.py, and look at the test cases for each such function given in lab09_test.py (add more if you like) to make sure you understand what each function is supposed to do. To get this lab checked off, finish the implementations of the **the first two functions in** lab09.py.[2] *You must make effective use recursion in each one.*

We note that the exercises involving nested lists are the most "naturally" recursive, whereas the others are just as amenable to being implemented solely using loops. However, we're still asking you to write recursive solutions for all the functions to practice the "mechanics" of recursion.

For even more practice with recursion, try your hand at lab09_optional.py. Some test cases are provided for each of the functions in that file in lab09_test.py .

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[1]But if you don't manage finish during lab, here are the alternate checkoff opportunities: (a) at ACCEL Green room consulting hours, listed at http://www.cs.cornell.edu/courses/cs1110/2018sp/about/staff.php , **from today until Tue Apr 10 inclusive**, (b) at non-professorial TA office hours **from today to Wed Apr 11 3:45pm inclusive**, although at TA office hours, questions about course material or assignments take precedence over lab check-offs; or (c) during the **first 10 minutes of your next scheduled lab (Tue Apr 10 or Wed Apr 11)**. Beyond that time, the staff have been instructed not to give you credit.

Labs are graded on effort, not correctness. We just want to see that you tried all the exercises, and to clarify any misunderstandings or questions you have.

[2]We strongly recommend that by the time Prelim 2 rolls around, you have solved all four exercises.