

# Computer Science 1 — CSCI 1100

## Lab 7 — Egg Scavenger Hunt

### Lab Overview

This lab uses an egg scavenger hunt to review the use of files. Please download the file `lab07_files.zip` from the Submittity Course Materials tab. This includes a set of large text files named `1.txt`, `2.txt`, etc. Inside these files are hidden Python programs, 9 in total. To hunt them down, you need to recover the individual lines and write them into a program file. Then, you must execute that file within Spyder. You will have to do a bit of file parsing to get there. Collect them all!

### Checkpoint 3: Putting it all together

Now, we are going to put these together. Copy your code from the previous checkpoint to a file called `check3.py`.

As in checkpoint 2, you will ask from the user a starting point: file number, paragraph number and the line number.

You will first find the first line of the program. Then, you will construct the program using a `while` loop, until you reach the line `END/0/0/0`. Write the lines you found in a file called `program.py`. When done, execute the recovered program. Try the following starting points:

1/5/4  
4/40/2  
4/42/14

Your program must report failure if your parsing fails, which would happen if you have a bug in your code for counting paragraphs and lines or an incorrect starting point is given.

**To complete Checkpoint 3**, show your code to the TA who will test it with a given egg program.

### Things to think about, challenge yourself

Well, you actually do not need to be told where the starting positions of all the eggs are. There is an algorithm to recover them. Can you outline it or even better write it? Hint: it involves a type of `while` loop to find all locations with a program line and then some reasoning about their locations. All of these are very doable at your current level of programming and the concepts we have learned.

There is a very easy algorithm that works for some eggs. But you need to get more sophisticated to find all of them. Remember: they are not all that well hidden.

Please post to the Discussion Forum your ideas of how to discover all the eggs, but do not post the locations. See if others can figure out where they are or how to find them. Some of these eggs are actually quite elaborate programs, so happy hunting!