CompSci 101
Introduction to Computer Science

Sept 29, 2016

Prof. Rodger

"All your troubles are due to those 'ifs'," declared the Wizard. If you were not a Flutterbudget you wouldn't worry."

- The Emerald City of Oz by Frank Baum

Announcements

- Test 1 is Tuesday!
  - You must take the exam in your lecture section
  - Accommodations for test 1? Must fill out form on website
- See Regrades form on website
- See all new Forms on website – main page
- No labs next week
- No consulting hours Tues-Thurs night
- Exam 1 Review session – LSRC B101
  - Sunday, 4:30-6pm

Exam logistics

- Exam is in the regular classroom
- Only need a pen or pencil
- No scratch paper
- Will give you a reference sheet of Python information with the test (see resources page)
- Closed book, closed notes, closed neighbor
- Covers lecture, lab and assigned reading, assgnmts, apts
- Have put old quizzes back up as quiz review
  - This is NOT for a grade, for studying only

The best way to study

- Write code on paper!

- Resources page has old tests and solutions
  - Try writing code, then look at solutions
- Rewrite an APT
- Rewrite code we did in lecture
- Rewrite code we did in lab

What we have not done

- Test 1 from Fall 2014 on we have covered everything.
- If looking at old exams, note we **have not done** the following:
  - List comprehensions
  - Code in square brackets such as

    y = [w for w in alist]

  There may be other things…. If it looks strange, it might be we haven't done it….

Understand

- What is the difference between:
  - [ ] and ( )
  - w = and w +=
  - print value and assigning value to a variable
  - print and return
  - When do you print? When do you return?
  - Does a function print or return?
- if, for, range, strings, lists
  - Understand format and how they work
- Parameters vs arguments

Writing functions with formulae

bit.ly/101f16-0929-1

Writing functions with formulae

- Using extra variables: can be really smart
  - Helps in making each line simple
  - Easy to correct if you've made a mistake

- See `triangleArea`, what about other math symbols and formula?
  - What do +, -, *, /, % do?
  - What about math.sqrt or 5**0.5 or math.sin …

Accumulating in a loop

- If you are going to return a string
  - Initialization, return value, how to "build it"
- If you are going to return an int (counter)
  - Initialization, return value, how to "build it"
- If you are going to return a list
  - Initialization, return value, how to "build it"

Counting 'a's in a string, 'fox' in a list?

- What Python functions/methods help
  - If you forget, how can you recreate yourself?
  - See exam Python reference sheet

Basic List/file Processing

bit.ly/101f16-0929-3

Review Old Exam Questions