COMP 1510 Programming Methods Lab 04

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1 Welcome!

Welcome to your fourth COMP 1510 lab. In today's lab we will enjoy a short romp with test-driven development.

Last week we talked about doctests, which show us how functions are supposed to work.

There are six Python source files (modules) in this lab. Each module contains a function description and some doctests. For full marks, you will employ test-driven development. That is, you will implement five functions that pass the provided doctests. You will also add two useful doctests to each function. For a bonus, complete all six functions and add two useful doctests to all six!

2 Submission Requirements

1. **This lab is due before the end of our tutorial on Thursday this week. If this deadline seems unreasonable, I need you to tell your set reps who must tell me before we meet on Thursday.**
2. Late submissions will not be accepted for any reason.
3. **This is an individual lab**. I very strongly encourage you to share ideas and concepts and to help each other, but you must submit your own work on Thursday.

3 Grading

Figure 1: This lab is graded out of 5

This lab will be marked out of 5. For full marks this week, you must do the following for each of five functions (1 point for each function):

1. (0.5 points) Correctly implement the functions so that the doctests pass and the function description, pre- and post-conditions, and return statement are satisfied.
2. (0.5 point) Add two doctests to each function, and tell me in the function comment above the doctests why you added them. For full marks, you must make a convincing argument (I suggest you use disjointed equivalence partitions, etc).
3. (1.0 point penalty) If your commit messages are not short and clear and specific. Tell me EXACTLY what you did. Start with a verb. Did you IMPLEMENT? TEST? DEBUG? ADD? REMOVE? FIX? WRITE?

4 Requirements

1. Visit this URL to copy the template I created to your personal GitHub account, and then clone your repository to your laptop:

   `https://classroom.github.com/a/TWxzjBBx`

2. Populate the README.md with your full name and student number. Commit and push your change. I'd like you to commit and push your changes to GitHub after you complete each of your five functions.

3. Delete the module containing the function you decide not to implement, in order to make this easier for me. Just right-click and delete the file in PyCharm. When you push your changes to the cloud, the repo on the cloud will also delete the file, and I will not see it when I mark. Of course, it's git, so I can actually see the file if I view a previous commit. I can show you what I mean if you like!

That's it! Good luck, and have fun! Remember to Commit and Push your work after each of the functions has been implemented and tested. More often if you solve a great problem or have a eureka moment, or want to save your spot before going for a run, etc.