

# CPS109 Lab 3

## Functions and Decision Making

### Learning Objectives

In this lab you will continue practicing writing functions and making decisions in Python. Last lab, you practiced writing functions directly in the Codingbat IDE. In this lab, you'll be writing functions in your own source file and submitting that file to D2L. This will be the style of all future labs, and the style of the midterm and exam. Therefore, it's incredibly important that you become comfortable with this style of submission and testing.

### Before the lab:

Make sure you understand all the course material up to and including conditions, branching with if/else, and sequence operations. Additionally, make sure you understand how to use your chosen IDE – creating source files, saving them, running them, etc. Codingbat served us well last lab, but we're ready to say goodbye to its comfortable walled garden and venture out on our own into the real world.

### During the lab:

Included with this lab description is a Python file called "lab3\_funcs.py". This file contains a series of function signatures, each with a 'pass' statement instead of a return value. For each function, there is a description of what the function should do. Your job is to fill in the functions with your own code, so that they accomplish the task that is described.

Also included in this lab is a file containing *unit tests* for each function, called "lab3\_tests.py". Open both files in Spyder and test your code by running the lab3\_tests.py file. You must run the tester, *not* the file containing your functions.

You may run the tester as many times as you like, until all your functions pass. Ask your TA during the lab if you need help doing this or understanding the output of the tester. Do not modify the tester! Your lab submission will be marked using a fresh, unmodified version of the tester.

### Submission

Submit your lab3\_funcs.py on D2L under Lab #3. Your mark is based solely on passing the tests, so you should already know how you did. Only your most recent submission will be kept, so be sure that the most recent submission is the completed one.