

CS 1301 – Summer 2009

Homework 9 – Write a Program!

Due: Thursday, July 23rd, before 6 PM EST (10% off if turned in by Friday, July 24th.)

THIS IS AN INDIVIDUAL ASSIGNMENT!

You should work **individually** on this assignment. You may collaborate with other students in this class. Collaboration means talking through problems, assisting with debugging, explaining a concept, etc. You should not exchange code or write code for others. For individual assignments, each student must turn in a unique program. Your submission must not be substantially similar to another student's submission. Collaboration at a reasonable level will not result in substantially similar code.

Files to submit:

1. myProgram.py

For Help:

- Newsgroups
- TA Helpdesk – see class website
- Email TAs

Notes:

- **Don't forget to include the required comments and collaboration statement** (as outlined on the course syllabus). **Failure to do so will result in no credit for the assignment!**
 - **If any error messages pop up when your TA hits "Run Module" in IDLE to grade your homework files, you will lose 50% of your points for that file!**
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Write a Program! (100 points)

Your TAs are bored! Your mission for this week is to come up with something interesting written in Python. This program may involve your robot if you wish, or it may not. Heck, it doesn't even have to involve the myro module at all if you don't feel like it! Remember, this is an individual assignment, so everyone should have different programs!

Note: You will present your program idea to the class in workshop the next week.

Grading criteria:

- **(25 pts)** Your documentation (comments, variable names, etc.) should explain what the program is, what it does, how the logic behind it works, and what gave you the idea for it. Your code should include some sample input and output.

- **(25 pts)** Your program should demonstrate that you understand and are proficient with fundamental CS principles such as:
 1. Looping and conditional execution
 2. Variables and types.
 3. Input and Output (either on screen, with files or HTML pages)
 4. Compound data types (lists, tuples, dictionaries, strings – note that you don't have to use all of them, just convince us you know how to index into sequences and maybe throw in a dictionary if your problem can use one.)
- **(30 pts)** Your program should function correctly without any errors, following the specifications you set for how it should work.
- **(20 pts)** Your in-workshop presentation is short, sweet, and to-the-point. It should show off your program, what its point is, and what makes it interesting/important.
- Up to an additional **fifteen points** of extra credit are available for really freakin' awesome programs.

Idea Hints: If you can't think of something you want to do, here are a few suggestions:

- Plot a starmap and show constellations on it.
- Make a program that navigates your robot using barcodes.
- Write a program that tells jokes, or pretends to be human.
- Grab some data (from your robot, the user, or the web) and use it to write a webpage.
- Write a game where you have to direct a prince to save the kingdom!
- Write a game of 20 questions that guesses the object the user is thinking of.

Turning it In:

It's the standard "submit your files to T-Square" before the deadline plan. Nothing new and exciting here.

Adapted from previous assignments by Melody Nailor – Fall 2008