COMP 190 Final Project

Yes, the time has come...for the funnest part of the semester! We have learned essentially all of the logic and programming tools we need to solve real world problems using computers and have had lots of practice doing so in python. Now it's time to apply all of that plus other resources (i.e. python libraries/toolkits) to create something of your own, because you are all magicians at this point, aka computer scientists -- you all have the ability to think of something you want to make and create it just by typing at your computer. This is your opportunity to make something that care about, are proud of, and can show your friends and employers to demonstrate how cool you are/that they should give you all the jobs.

Deliverable

Think of something you want to make -- maybe it's a game, maybe it's some sort of interactive application, maybe it's something that analyzes data from one or various sources and displays it in an informative way, maybe it's a Sublime plugin, maybe it's something your favorite instructor Hannah can't think of to provide as an example! If you're at a loss for ideas or need help generating some, come to office hours or schedule an appointment to chat about it. Ideas are subject to approval by myself and/or Dr. Jeffay.

You have the option to work in teams of 2-3 students (preferably 2). I will provide guidance on tools and concepts as necessary as well as help teams understand unfamiliar concepts you come across on the internet, but the development/debugging/etc should be done entirely by the team.

You must use **at least one** python library. See the **Sample Libraries** section for...you guessed it...some sample libraries you might be interested in using.

A good example of an appropriate project scope is the Language Detection project the Natural Language Processing group did using the NLTK (natural language toolkit) python library. My solution for this is posted on the solutions page on Github.

Deadlines

Monday, April 13th: Submit teams and project proposals. Project proposals should include your project idea and preliminary plan of attack. (We will spend this day of class going over the proposals with each team and getting started.)

Wednesday, April 22nd: Progress check. At this point teams should have made some non-trivial progress and have a clear plan for completing the project. Essentially making sure that teams have the tools they need in order to execute their plans.

Tuesday, May 5th, 12-3PM: Final exam slot. Final projects are due and each team will present on their development journey (e.g. what tools were used, division of labor, cool things learned, motivation for choosing that project) as well as demo their project.

Rubric

- Progress Check
- Presentation/Demo
- Uses at least one library
- Code is a correct implementation for the intended project
- Participation

Sample Libraries

- Natural Language ToolKit - leading platform for building Python programs to work with human language data.
- Scrapy - an application framework for crawling web sites and extracting structured data which can be used for a wide range of useful applications, like data mining, information processing or historical archival.
- Tweepy - An easy-to-use Python library for accessing the Twitter API.
- Pygame - Pygame is a cross-platform library designed to make it easy to write multimedia software, such as games, in Python.
- Twilio - Query the Twilio REST API to create phone calls, send messages and more!