Python - Initial Project Proposal

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Your initial project proposal should do the following:

1. It should be a typed document submitted on Canvas (1 page)
2. It should have a short reflection on your current understanding of the the material, number of absences, and grade in the class. Do a quick grade check!
3. Describe at least one idea you have for what problem you would like to solve. Talk about how you plan to solve the problem at the level you choose.

Here is the rubric from the syllabus. How are you doing at completing each of the columns.? You could write python code to calculate your current percentage in each area and then project what your final grade will be.

For example: If today I have done 8 out of 9 of the practice assignments then I have an about an 88% in this category. There are 23 possible practice problems listed in canvas so I am on track to earning 20.4 points in this category if I keep up the same level of work. This puts me in the 3.3 or 3.7 row.

Grade	Practice Problems	Programming Assignments	Exams (sum of points)	Attendance	Final Project	Total Points
4.0	22	22	35	missed 2 or less = 10	18	107
3.7	22	20	33	missed 2 or less = 10	16	101
3.3	20	20	33	missed 4 or less = 8	14	95
3.0	20	18	30	missed 4 or less = 8	14	90
2.7	20	18	30	missed 6 or less = 4	14	86
2.3	18	16	30	missed 6 or less = 4	12	80
2.0	16	16	28	missed 8 or less = 2	12	74
1.7 and below	less than 16	less than 16	less than 28	missed more than 8 = 0	less than 12	less than 74

Final Project Info:
Your project will solve a problem from an area of your own interest. This could be code that might help you on homework assignments, code that analyzes some data, or even code that helps you with something from your life. You are welcome to be creative (eg. build a small video game - the problem is "I am bored"). Projects can be completed at a variety of levels:

P1 A level 1 project earning 12 - 14 points will meet all of the following requirements

- Clearly define the problem being solved; explain it's importance and any background.
- Accepts at least one user input.
- Prints or Saves an output (the solution) that includes either a graphical or tabular component.
- Contains appropriate commenting and uses good Python Style (as defined in class).
- Completes a non-trivial calculation (using loops and/or conditionals).
- Is unique and related to an area of your interest

** A level 1 project should be doable in the last week of classes. It should take about 10 hours to complete.

P2 A level 2 project earning 14 - 16 points will meet all of the level 1 requirements plus

- Contains more advanced user interactions - accepts multiple inputs or imports multiple files as appropriate.
- Contains saves a report of the final data in both tabular and graphical form as appropriate.
- Uses more advanced looping and conditional statements.

- Uses functions and modules to organize the code as appropriate.

** A level 2 project should be doable in the last two weeks of class. It should take about 20 hours to complete.

P3 A level 3 project earning 18 - 20 points will meet all of the level 2 requirements plus

- Programmer meets with Joanna at least once to brainstorm.
- Uses classes to define data types used in the program as appropriate.
- Does one of: Advanced data or graphical processing or advanced user interaction GUI or completes advanced testing and algorithm analysis.
- Learns something that was not directly covered in class.

** A level 3 project must be started well before the end of the semester. It should take 30+ hours to complete.

You can find projects by looking up Python tutorials online - but you would have to put your own spin on the tutorial. Make the code your own! The book also has a fun video game project and a tutorial on creating an app using django.