CS0008: Intro to Python

Weekly Assignment 2

Recipe Calculator

This assignment is similar to the first in-class exercise that we did so if you were comfortable with that, you should be comfortable with this. If you are unsure about anything, please refer to the Chapter 2 lecture slides.

**Part 1 The Problem Statement**

Your friend wants you to make a program that will let them enter a new recipe for any food they want and then enter the number of people that the recipe feeds. Then the user should be able to enter the number of people they want to feed, and the program should tell them how much of each ingredient they will need. Because we can only use a fixed number of variables (till we learn about lists), assume the user will first enter the name of the recipe always followed by 5 ingredient names and 5 ingredient amounts. You can ask for all the names first or ask for the amount after asking for each name. You can also assume the ingredients are all in cups or teaspoons or whatever standard you want. Again, each student can and will have a different recipes and therefore different units of measure.

**Part 2 Requirements (2 Pts)**

Write 6 requirements for the program. At least 3 must be specific requirements while the rest can be generic or specific. Having specific requirements allows you to better plan. Also keep in mind that requirements are full sentences and usually start with “The program shall…” or “The program will…”. You can also view requirements from different perspectives such as “The output shall be…” or “The user shall be able to input…”.

**Part 3 Pseudocode or Flow Chart (3 Pts)**

Please either provide pseudocode or a flow chart to show the planned path the program’s logic will take. You can make a flow chart using the shapes functionality provided by many popular text editors such as Microsoft Word or Apple Pages. Even simple editors like Paint allow you to create flow charts easily.

**Part 4 Correct Code and Output (5 Pts)**

Finally, convert your pseudocode or flow chart to actual code. Make sure to utilize concepts we have learned such as Named Constants if they are needed or adding comments in places that are performing somewhat complicated tasks. Also make sure to have formatted output. It’s ok to use floating point output (numbers with decimals) instead of fractions but if you are interested in printing out fractions, I suggest you Google “convert number to fraction python” and see what solutions exist and what other people have done on StackOverflow.

**Part 5 Test**

You should always test your code to confirm you got the results that you were looking for. Make sure your results make sense.