CS5001 Homework Rubric

This rubric will be used to evaluate your homework assignments in CS5001. It will be applied to each Python program you submit (most assignments have multiple Python programs). In addition to numeric scores in each rubric category, your grader will provide written feedback as well, if there is something helpful we can contribute to your learning.

If you ever have questions about this rubric, or about your score for a particular homework, please come and see us during office hours. Make an appointment if the office hours don't work for your schedule. These things are much easier to sort out in person than over email.

Your overall grade for each homework assignment is a weighted average, described in the remainder of this document.

Written Component

The questions in the written component all have correct answers, sometimes multiple correct answers. You'll earn full credit in the written section if you answer completely and correctly.

Category	**Approx. Weight of written component**	**Excellent (100%)**	**Satisfactory (90%)**	**Unsatisfactory (80%)**	**Not Met (0%)**
Correctness	1.00	All written questions are answered correctly.	Minor errors in a few answers.	Significant errors in one or more answers.	Incorrect answers for all written questions; no written part submitted.

Programming Component

Each program will be evaluated according to the following rubric, broken into the categories you see below.

Note that we have a 2% "AMAZING" category. That's reserved for solutions that absolutely blow us away. Doing exactly what's asked of you does not earn a perfect grade; doing an incredible job with your solution earns a perfect grade. In each assignment, we'll specify exactly what makes for an amazing solution.

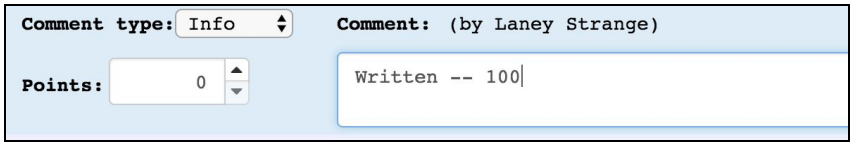
We've also noted the weight column as "approx. weight" because your grader has discretion to exercise their own knowledge and expertise to your overall grade (usually this will work in your favor).

Category	Approx. weight	Excellent (100%)	Satisfactory (90%)	Unsatisfactory (80%)	Not Met (0%)
Program Correctness	.55	No errors, program always works correctly and meets the specification(s).	Minor details of the program specification are not met, program functions incorrectly for some inputs.	Significant details of the specification are not met, program often exhibits incorrect behavior.	Program does not run successfully for any inputs.
Readability	.23	CS5001 style guide is followed, code is clean, understandable, and well-organized	CS5001 style guide is mostly followed. Minor issues with variable naming, structure of functions, or general organization.	At least one major issue with coding style.	Multiple major issues with coding style
Documentation	.20	We can figure out what your program does ***just*** by reading your comments.	One or two places that could benefit from comments are missing them, or the code is overly commented.	Complicated lines or sections of code uncommented or lacking meaningful comments.	No comments
AMAZING	.02	You went above and beyond the assignment requirements.	n/a	n/a	n/a

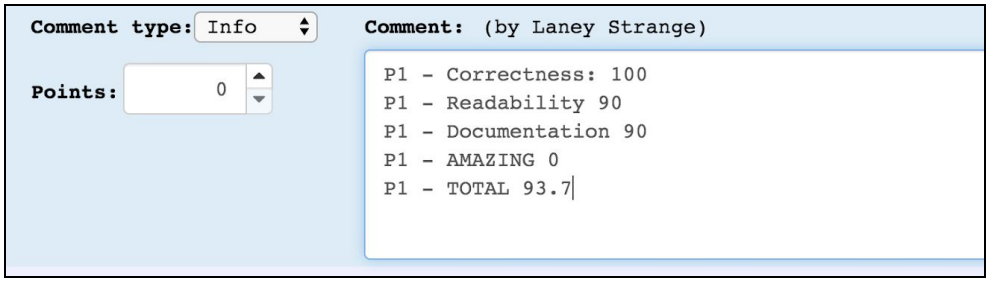
Example Homework Score

Suppose that, for Homework 1, there is a written part and four programming assignments. The written part counts for 20% of the HW1 grade, and the programming parts are worth 15%, 15%, 25%, and 25%.

Let's say I get 100% (Excellent) on my written part. I'll see a comment like this on the grading website:



Now let's take a look at Programming Part #1. When I go to this file on the Hand-In Server, I see a comment like this:



You can see my distribution of scores among all pieces of the rubric, along with the total score *for this one program*. How did the total score come out to be 93.7 for Program #1? Because it's a weighted average. We take each component score and multiply by the weight of that factor, and then we sum everything up.

In general:

```
Program Grade =
     .55 x Correctness Score +
     .23 x Readability Score +
     .20 x Documentation Score +
     .02 x AMAZING Score
```

For Program #1 in this example:

```
Program #1 grade = (100)(.55) + (90)(.23) + (90)(.20) + (0)(.02)
                 = 93.7
```

The second, third, and fourth programming parts will have a similar comment and point distribution. We end up with scores for the 4 parts of the assignment, suppose it's something like this:

1. Written: 100%
2. Program #1: 93.7
3. Program #2: 88.6
4. Program #3: 100.0
5. Program #4: 82.7

To get one score for this homework, we combine them all as a weighted average. The written part is 20%, and the programs count for 15%, 15%, 25%, and 25%.

```
Homework #1 Grade = (100)(.20) + (93.7)(.15) + (88.6)(.15) +
                    (100.0)(.25) + (82.7)(.25)
                  = 93.02
```