

Please create a `hw6` directory inside the private GitHub repo where you have submitted your previous homework (`<github-username>-hw`). Your responses should appear in a file called `hw6.md` that lives inside the `hw6` directory. You can download a `hw6.md` template from course the webpage. Make sure to add `hw6.md` to the repo and commit your changes with `$ git commit -a -m "replace this with your own log message"`. If you are working from a previously cloned repo, remember to execute `$ git pull` to retrieve any changes from `github.com` *before* committing. You may also find it easiest to write your answers directly using the `github.com` web interface.

As a class, we have covered a lot of material this semester. In this question, we want you to reflect on everything we set out to accomplish, celebrate the progress we have made, and think about where we will go from here. We are not going to grade you on “correctness”; this is an exercise to put the material in perspective, and to give you the chance to influence the future directions that CS135 take.

Question 1. *For each of the topics below, we want you to answer the following questions, in whatever format and level detail seems most appropriate to you.*

1. How comfortable do you feel using this in new code that you write?
2. What types of tasks does this help solve?
3. Were there any labs or homework assignments that you found this particularly useful?
4. Were there any labs or homework assignments that, knowing what you know now, you wish you used this to solve?

Core programming abstractions:

- conditional statements (if/elif/else)
- loops (for/while)
- functions
- classes
- subclasses/inheritance

Data structures and data types:

- lists

- dictionaries

- sets

- strings

Python-specific:

- list comprehensions

- “magic” methods

- the REPL

- importing libraries and pip/venv

Question 2. *Below is a list of all of the labs we completed this semester. In whatever level of detail you find appropriate:*

1. Pick your favorite lab and describe what you learned by working through the lab.
2. Pick your least favorite lab and explain why you didn’t like it and/or how you think it should be improved.

- Patterns and throwing darts
- String manipulation and Madlibs
- Binary and Gray codes
- Stock viz

- Purple America
- Twitter and word clouds
- Baby names (dictionaries, matplotlib)
- Regular expressions and web crawling

Question 3. *Do you feel confident in your ability to work with data and use Python to solve problems in your other courses and/or the “real” world?*