DAT-119 – Python 1

Spring 2019

**In-Class Assignment Week 9**

Does anyone have any comments on last week’s assignment? Did it feel good to work on a project of that size? Was talking through the plan with classmates useful? (Feel free to email me comments or drop them in the anonymous form if you don’t feel like talking out loud now.)

**Schedule and Final Project:**

Hopefully we’re all feeling good about conditionals and loops, and we’re starting to get feel for functions. With this last piece—reading and writing to files—most people will have all of the pieces they need to make a good start on their final projects. (Some of you will want to use string operations, too, and we’ll get those next week.)

Which is good, since it’s time to get started! There’s a month left in class:

* 4/10 – strings!
* 4/17 – spring break, no class (I’ll post some content, but it’s optional)
* 4/24 – dictionaries and sets
* 5/1 – object oriented programming and inheritance
* 5/8 – our exam period, final project is due

I’m suggesting the following for the project schedule, but let’s talk about it before I set it stone:

* 4/10 – declare a project
* 4/24 – bring a plan, and we’ll pair off and discuss/make suggestions (10% of project grade)
* 5/1 – bring some implemented code for a classmate to help you test (10% of project grade)
* 5/8 – finished projects sharing (5% of project grade for showing up and participating, and the remaining 75% of the project grade is reserved for what you turn in that day via GitHub)

I’m not going to make you stand in front of the room to share your projects during our exam period, but I’d like you to have the opportunity to show off what you’ve built and to see what your classmates have built. This is meant to be pretty low pressure and fun. I’ll bring some games and probably cookies.

The project specification is up in Assignments, at the bottom of the page. I’ll add the rubric before spring break is over.

**Reading and Writing Files:**

Unsurprisingly, there are some extra files included along with our usual notebook, this week. (This is one week when pulling my whole repo from GitHub will make the notebook function better than just downloading everything from Blackboard.)

**To Turn In:**

1) Code and planning file for the program specified below, submitted through Blackboard:

In the file “steps.txt” is a year’s worth of someone’s step counts from a pedometer or a fitness tracker (like Apple Watch or Fitbit). There are 365 lines, where the first is January 1, and the last is December 31. It was not a leap year, so there were only 28 days in February.

Write a program that reads in the file and calculates the total number of steps taken per month.

Have it output to a file called “step\_averages.txt” with each month nicely labeled, on its own line.

Partial sample output file:

Month Total steps taken

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January 5,246.1

February 4,851.9

March 5,777.6