DAT-119 – Python 1

Spring 2019

**Week 12**

There is no in-class assignment to turn in in this space. You should turn in your first draft (really, your first completed features, not a draft of a fully-implemented project, yet), but there’s a separate place to turn that in.

**Agenda:**

1. We’re going to talk briefly about how to keep your Python skills sharp over the summer and how to keep building them if you’re graduating or otherwise not going on to Python 2.
2. I’m going to remember to ask you about food allergies for next week’s cookies-and-software-expo.
3. Then you get collaborative time, to test code with a colleague.
4. And then you get project work time, with your colleagues and me here to help as you need it.

**Building/Practicing Python skills:**

**Practice problems, to stay sharp:**

* **Project Euler** - <https://projecteuler.net/> – a classic! But it’s extremely mathy! You can use any programming language to solve these problems, and once you’ve solved any given problem, you get access to a forum where people share solutions.
* **Code Abbey** - <http://www.codeabbey.com/index/task_list> - less mathy than Project Euler, but also less popular. I’m not actually sure all of these problems can be done in Python, but many/most can.
* **Code Kata** - <http://codekata.com/> - this one doesn’t have tracking of who has done what (no achievements, boo!), and it is more likely to appeal to the Computer Science-inclined Pythonistas than the Data Analytics-inclined Pythonistas. Also better with a study group.

**Online Courses (if you’re feeling shaky on Python, want to continue outside of CCAC, or need a refresher at the end of the summer before Python 2):**

* If you like games, this is a decent intro to Python course: <https://www.coursera.org/learn/interactive-python-1> (and there’s a part 2). Don’t pay them money; just listen to the lectures and do the assignments.
* If you aren’t as into games, Python For Everybody is a very well-regarded set of courses (take the free/audit version, don’t pay): <https://www.coursera.org/specializations/python>. The open textbook for that course was our secondary textbook for this course.
* This is a third option, a little newer than Python For Everybody, but the author/teacher of that also consulted on this set of courses (audit): <https://www.coursera.org/specializations/python-3-programming> - this one also has an open textbook, which is really nice.
* It isn’t a full course, in my opinion, but if you just want to refresh your muscle memory for Python, doing *free* exercises on Code Academy won’t hurt: <https://www.codecademy.com/learn/learn-python-3>

**Articles you’re going to want to read/work through at some point:**

* **Managing Environments** - <https://docs.anaconda.com/anaconda/navigator/tutorials/manage-environments/> - You’re eventually going to want to install different Python libraries for different projects. If one project wants one version of a library, and another project wants a different version, that makes for trouble, which we solve by putting them in different environments.
* **Falsehoods Programmers Believe About Names** - <https://www.kalzumeus.com/2010/06/17/falsehoods-programmers-believe-about-names/> - if you want to go out and get a software job, do my hyphenated-name self a favor and read this; if you’re doing data science, do *yourself* a favor a read this; there are actually a whole lot of these articles about falsehoods, but I find the full list a bit overwhelming: <https://github.com/kdeldycke/awesome-falsehood>
* **PEP 8** - <https://www.python.org/dev/peps/pep-0008/> - this is the generally agreed-upon style guide for writing Good Python, and most of our class style guide rules were consistent with it. A lot of this can be automated with tools like Black: <https://github.com/ambv/black>

**Wrap-up from the semester:**

* The Data Analytics at CCAC Slack workspace is available to you for as long as you want to use it. I’ll stay logged in.
* I’ll leave a folder with our assignment docs (no solutions) up on Google Drive and a repository with all of our notebooks on GitHub through at least next semester:
  + <https://drive.google.com/open?id=15C_aabmHVGOoeS6xZsY9RxYjPFnQNbnr>
  + <https://github.com/csheldonhess/dat-119-2019-spring>
* If you have feedback for me about the course that you didn’t include on your official formal survey (the yellow paper at midterm), I’m leaving the course survey up: <https://forms.gle/tveuVfGCXAqc1eow6>
* If you ever need to contact me, my email is [csheldon-hess@ccac.edu](mailto:csheldon-hess@ccac.edu), and you’re welcome to friend me on LinkedIn: <https://www.linkedin.com/in/csheldonhess/>