Week Five Reflection Journal

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After the fourth week of this experiential learning activity, I wrote that I believed I had completed my Python introductory phase and I was prepared to begin the path towards working with real data and learning more complex analytical methods. The fifth week of this experience confirmed what I believed. I continued with all of my main activities and I felt for the first time that I was learning some new concepts, rather than just learning how to do things in Python with which I was already familiar. Besides the assigned textbook sections, the module overview assignment, and exercises from Learn Python the Hard Way, the main thing that I learned about was wrangling and cleaning data. From my experience with R, I was familiar with many of the methods that were covered in the books I read and videos I watched, but I came across a couple of new topics including regular expressions and data normalization.

**Learning Experiences This Week**

My timesheet for this week reflects my ideal workload for a week in this experience, as it includes an hour or two of activities for every single day of the week. There were no days this week where I was not able to commit at least an hour to my activities. This allowed me to work at a comfortable pace, and even to work on my reflection journal at a time which is not the last possible chance before midnight on Sunday, for the first time ever between this experiential learning activity and my prior one in SQL. I hope to continue this trend when I can for the rest of the course, as it is a much more pleasant and beneficial experience.

I began this week on Monday by reading the assigned sections 4.1 – 4.3 of our Introduction to Scripting textbook, and then working on the module overview script assignment. The textbook discussed what data is and how it can be stored for further use in python. I’ve heard many definitions of data on my learning journey, but the textbook included a new one that I found compelling. It said “data are items that pertain to some event, activity, or experiment that we are interested in knowing more about.” (Miller, 4.2) This definition puts the wide variety of data that we encounter into a simple context and explains how it can be used to generate insights into certain real-world situations. When I attempted the problems that were assigned in our practice script, I was a little confused about the output that was expected from each of the problems. At first, I thought it was expected to either print the values in the data and then the sum at the end or to print a cumulative sum. However, the instructions simply say to write a function that accumulates the sum and prints the sum, so my script does exactly that for both the raw data and the absolute values. This confusion emphasizes the importance of understanding exactly what is being asked when problem solving in computer programming.

Once I completed the standard weekly assignments, I had the freedom to spend my time on any activities that I wished. For the rest of the week, I watched a couple of videos on Pluralsight, I read chapter 7 of Python for Data Analysis book, and I continued with exercises from Learn Python the Hard Way for the first time since the second week of this experience. The Pluralsight videos that I watched were Data Wrangling and Cleaning Data from the Python for Data Analytics course. This matched up perfectly with Chapter 7 of Python for Data Analysis, which was titled Data Wrangling: Clean, Transform, Merge, Reshape. Many of the topics and methods were covered in both the book and the videos that I watched. It is good to both read about these topics and to see them in action by someone in the videos. The next chapter in the book is Plotting and Visualization. I also found two videos on Pluralsight which are also about visualization in Python, so I plan to watch them next week once I have read the chapter. I am encouraged by the fact that I now seem to be beyond an introductory level of python, and I am excited to continue with all of the activities that have guided my learning throughout this experiential learning activity so far, which seem to be aligning perfectly as I dive further into python.

**Record of Project/Work Ideas and Their Current Status**

* Guessing game program
  + Not started
* Learn Python The Hard Way
  + 13/53 Python exercises
  + 15/15 Command Line Crash Course exercises

References

McKinney, William-Wes. 2012. Python for Data Analysis. *O’Reilly*.

Miller, Bradley and Ranum, David. 2017. Introduction to Scripting. *Jones & Bartlett Learning.*

Shaw, Zed A. 2014. Learn Python the Hard Way. *Addison-Wesley*.