Daniel Woods

Professor Byron Hoy Project 1 Report

For my first project in this probability and applied statistics course, I wrote many programs with code that I can reuse in the future, specifically my Statistics Library program, and much of the code that deals with reading from and writing to CSV files. The project took me a couple of weeks to get done because I had a lot of it done prior to it being assigned.

One of the reasons this project took so long is that most of my coursework at Stockton, after Data Structures and Algorithms 1, has been taught in python. This caused me a lot of problems because I had to get used to the clunkiness of Java all over again. From relearning how to instantiate objects to things as simple as declaring variable types quickly became a boon of figuring out why my IDE was highlighting all my text in red. As I progressed though this work, I have regained my lost speed with java and more.

Another problem I encountered during this project came during the FishMarket program specifically. I had a Seafood super class and four subclasses; crab, fish, scallop and shrimp. The ArrayList of seafood objects wouldn’t let me call a getName method I had in the respective subclasses when I went to write them to a CSV file. It took me longer than I would care to admit to realize that I had to pass a type string into a variable in the superclass when I called the super constructor from the subclass, then I could use a getter in the superclass to describe the type of seafood in the subclass.

I wrote a method called generateCSV for the fishMarket program. I’ve used it in every other program for this project that required writing to a CSV. With minor modifications, you can pass it an ArrayList and a filename and it will efficiently write all the data to the file. I have a feeling that these kinds of methods will be of use to me in the future if I ever find myself in a java development role.

The StatsLibrary program is one that I may use in the future, but my suspicion is that it will not get used as much. It seems that for many programs that do complex number crunching, python is the language of choice in the industry because of its expansive math libraries and less rigid data structures. Java would be a good language to use if you needed to solve these problems on any machine, because of the JVM that exists for almost anything, but I don’t see a super valuable use case for doing stats calculations on a large variety of devices.

I feel as though I put a lot of effort into this project, and I think the work I did is good. I look forward to getting feedback on it so that I can incorporate an experienced programmer’s criticism into my skillset. I enjoyed relearning java, and it came back much more quickly than I had anticipated.