**Seth Russell**

*Project 1 Write up/Reflection*

***Volleyball Player Statistics***

*Offensive and Defensive Tables*

**Hypothesis**

* The hypothesis I created before writing the code for this project was proven true; with the right calculations and formatting, a user could easily have a real time program running by implementing stats during a match for multiple players. This would take a few more lines of code and adjusting the current result of the project slightly to incorporate real time events, such as what action was performed and what the result of that action was, as well as which player conducted said action.

**Hard Earned Results**

* Some of the results I was getting in the beginning of the project were unexpected. For instance, when doing the calculations, I was trying to use a separate function for all the calculations. In doing this, when I started to see if I could format the percentages into 3 decimal floating-point values, I realized that I couldn’t check two different lists at the same time. This gave me a fit for a while and scraped the separate function altogether to save myself some sanity, and just do the calculations while inserting new stats that had to be calculated and not just added to the lists shown in the code.
* Another assumption I made that was off was how the table formatting was going to look. I hadn’t realized that the tables would be so large, and I had to adapt to the size by slicing one table into an Offensive and Defensive table. Even after that was done, the two tables were still too large for the screen, so another slice was made, just cutting off each table at a certain point to make it fit on the screen. To go along with that, the length of the stats and headers was off, and it took me a while to figure out a way to evenly distribute each cell in the table, as well as format the line separating the headers from the actual stats. The table finally looks presentable after a few hours of trial and error.

**Easy Results**

* The results that came as expected were the calculation results, as the formulas can be simple to do if you know how to do them.

**Challenges**

* The challenges I faced included learning how to lineup a table with proper spacing and formatting, setting up multiple lists that could work and interact with each other, and adding the calculated statistics to the lists in a sequential order in correspondence to the statistics themselves.

**Reflection**

* There were a few things I changed about how I went about this project, most notably the statistics I was going to showcase. As stated in the “Hard Earned Results” section, one of the problems I had to work around was the total amount of statistics I was trying to incorporate into the final table design of the project. I decided to split the table into two parts, an Offensive and Defensive table, as well as splitting them into two halves in order to make them visible on one screen. Another change I made included how I did the calculations, which were done inside of the main function instead of a new defined one like I had planned on doing.
* If I could do this over again, I would choose to lessen how many statistics are being calculated by selecting either Offense or Defense and just working on that one aspect of the game. It would make my life easier and ease up on how much code is being written/shown at once. Another thing I would change would be how the values were being implemented into the lists. It would look nicer if done a different way in my opinion.