When I first started the project I did not fully understand all the instructions, so I decided to start with the parts that I did know. I knew there had to be one class named sample and one named simulateMarket. After some struggle I was able to understand how to do linear simulation and I programmed it to the best of my knowledge. After speaking to a few of my peers and hearing that they have done something similar I was confident that I was correct.

I decided that the best design would be if the sample class handled the things that had to do with computing the statistics and the simulationMarket class would handle the algorithm for the all three different simulations.

Since I understood that the sample class needed a method that computed min, max, mean, median, and standard deviation I started on that. I declared min, max, mean, median, and standard deviation as instance variables and I created a method called computeStats. I implemented a loop to run through the entire ArrayList and find the min and max. The mean had a similar process in which there was a loop that would add all the items in the ArrayList and then divide it by the size. Then I researched the formula for standard deviation and thought of how I could translate that into an algorithm. Then I did the same for the median. Seeing how the code had gotten very big and unreadable I started adding comments to make it more understandable. However, I thought that from a design standpoint it would be better if each statistic had its own method, so I put all of them in their own method and set them in the computeState method.