Learning Experience

Assignment 4 was about implementing a data structure called hash tables. At first glance hash tables seem complicated and hard to implement but this project allowed me to have a better understanding of the data structure. Having us write our hash tables allowed us to better understand how two distinct array structure, arrays, and linked list, can come together to make it easier to access data from a data structure.

One of the hardest parts about implementing hash tables is trying to visual how the data is being stored. Because we have two data structures it is conceptually hard to visually how to add, get, and manage the data. In my experience one of the hardest methods to implement was the “show all” method in the data manager class. While I was trying to access the data at different indices, I kept getting a null pointer exception while I did not understand why. It took a lot of debugging and brainstorming to be able to figure out what was wrong with my code and why I could not pass the public tests.

If I could do one thing over for this project, it would be to create better tests. The tests for this project were terrible. The Junit tests gave little to no help while I was trying to debug my code. If I had more time, I would write tests to ensure my program was bug free and without mistakes. Overall, this was a complicated project with a lot of trial and error but I was overall pleased with he results.