

Purpose: The purpose of this project was to get us to first create an array list, where we can move the cursor freely and manipulate data at the cursor. The next step after completing this list is to move to the node list which was the more challenging of the two in my opinion. In these .cpp files, we used the same test driver and make file, however the implementations themselves were much different. We had a number of functions that were basic checks such as if the array size was full or empty, and then we had some that were basic cursor movements to instruct the user which thing the cursor was on. Then we had the more challenging ones, such as the inserts and the removes. With the inserts we had to insert the data point at any place in the array/node list, and shift the data accordingly.

Design: My idea to take on this project was to do the array based items first, however, I had a lot of trouble getting even the simplest functions to work the way the test driver wanted them to. So I did about half of the array list implementations, and then decided to start the node based ones as a strategy to get the harder items out first. With the node based class, it was troubling getting the first few things to work, however after realizing some basic rules of how the nodes worked, it got much easier in the next functions.

Problems: In this project, I ran into more problems than any other project before. At first it was the not working test driver and header files, losing time because I was unable to figure out what the test driver needed to be done, to then needing a special make file to get it all to compile. By the time we had working items, it was already Tuesday, and I had just started changing all my functions to make sure they were doing exactly what they needed to be. After that, I ran into the challenging issues of the node based; and having not much knowledge going in, going to Josh's pass sessions really helped out, a lot. After getting the node based class done, I still had some minor errors like when the copy or equality operators were called, my cursor would not follow the list properly. After attempting to fix this, I then decided to move to my array based list. There were some errors in that such as the clear function, as for whatever reason gets a segmentation fault when called in option 10, and the insert before. However, besides these items, all other options work 100%, however I feel as though we were given a very very very short amount of time for this project in comparison to others, and the quality of the program shows it.

Things to Change: Given more time I would have fixed everything above in the problems list.