

This project shares a lot of similarity with project 8, so I reused a lot of code from project 8, with only a few minor adjustments, particularly incorporating the `m_back` member to work with them.

The `ArrayQueue` class was a lot more straightforward than that of the `ArrayList` we made last project. For one, I didn't have to deal with all the dynamic memory stuff which was nice. Many of the function algorithms were covered in the lecture, so I didn't really come up with anything too unique, and none of the functions ever really went above 10 lines long.

The `NodeQueue` class was a bit more challenging in that I had to repurpose my code to work with the `m_back` member. My solution to this was that, when copying over the information from one queue to another (whether it be during the copy constructor or the `operator=`), I stopped at the element right before the last one, updated the `m_back` pointer, then copied the last element over. Because the `NodeQueue` has so much similarity with the `NodeList`, I could reuse a lot of the functions I had previously made, with little to no changes.

I had to make a couple modifications to some of the header files in order for some of my functions to work. In the `Node` class, I had to add the `NodeQueue` class and the `NodeQueue operator<<` as friends otherwise I would not be able to access the `m_next` pointers within the node in order to traverse the queue and print out its contents.

As a side note, I did not include any built-in checks to determine whether a queue was empty when using the front and back operations. Usage of those functions should

probably be left to the user however. I read that some implementations of front and back throw exceptions if the queue is empty, but I did not include that in my code.