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Assignment 3 Learning Experience

More than anything this project taught me the usefulness of linked lists as data structures. They’re memory efficient, because instead of implementing a fixed size data structure that might be too big or small, you can simply make the list bigger by adding elements as needed. The cost-benefit of this implementation is the complexity of the structure and the many nuances that go into actualizing the many different working parts needed in order for a single kind of double linked list to exist.

Learning how to implement iterators and watching them work in the finished GUI granted a greater understanding of their purpose and how best to use them in future instances and projects. They’re incredibly useful tools for traversing data structures and I look forward to implementing them in the future of my own accord.

Overall, this project didn’t provide too much in the way of a challenge. Those most difficult part was implementing the sorted double linked list add method because of the reassignments needed. I visualized the process as copying the surrounding nodes’ addresses into the entry, and then changing their references to one another to point to the new entry. I’d made a few mistakes that sprung up from different eventualities (null values being called on for data fields), but I managed to map the end result I wanted in a way that eventually became clear to implement.