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CMSC 204

### Learning Experience from This Assignment

This assignment was a great way to dive deeper into doubly linked lists and how they work. I learned how to implement a basic doubly linked list and then extend it into a sorted version using a comparator. It was cool to see how the add, remove, and traversal methods work under the hood, especially when dealing with both head and tail references.

I also got more comfortable with iterators, especially the `ListIterator`, and how to handle edge cases like throwing exceptions when there are no more elements to traverse. Writing JUnit tests was super helpful too—it made me think about all the possible scenarios (like empty lists, single-element lists, etc.) and ensure my code handles them correctly.

That said, I struggled the most with implementing the remove and add methods. For remove, figuring out how to handle cases like removing the head, tail, or a middle node without breaking the list was tricky. With add, especially in the sorted version, ensuring the new node was inserted in the correct position while updating all the next and prev references took some trial and error. It really made me appreciate how important it is to visualize the structure and test each step.