During this assignment, I learned about Java functional programming and the serialization mechanism. I needed to use the former to reuse code in the most readable manner possible for the three methods that all require to read text from a file and write text to another file, which led me to have a single function performing read/write, and pass it a delegate to perform the necessary operation on the lines as they are being read. This is probably the part I am most pleased with, as it took me some time to figure out exactly how to use functional interfaces, but at the same time passing a delegate seems like the most natural solution possible to the problem.

As for serialization, I used it to complete the last extra. I guess I could require my objects to override toString() and write the result of that to a file, but, since Java already provides a mechanism to save objects, it seemed unnecessary. In writing the code for serialization/deserialization, I learned how to use Object to accept any object as a function argument, and instanceof both to make sure the object is serializable and to make sure the deserialized object is, in fact, of the class I expect it to be before I typecast it.