Adam Barakat
CPSC-39-12111
Scrabble-Like Game

Q: Reflect on your personal contributions to the group's problem-solving process. How did your understanding of object-oriented programming (e.g., classes, constructors, and data structures like ArrayLists) evolve as you collaborated on this task? What challenges did you encounter, either in your own work or in group communication, and how did you address them?

A: I enjoyed this assignment, I work with large word lists quite a bit and have learned the best ways to search through them and in general how to deal with them. My personal choice of language is C++ for the obvious speed when it comes to searching multi-million line files, but I enjoy the programming in Java nonetheless.

Knowing about things like binary search, buffered reader, and array lists really helped, I was able to get through the fundamental parts of the program very quickly as I've written those types of programs before quite a bit. Knowing how they all work on a low level is also helpful in debugging them.

This all felt like a few LeetCode problems put into one, which was nice because I do quite a bit of LeetCode. The random generation of letters, the binary search, the validity checking, all very common algorithms to make.

One challenge I encountered was an issue with checking the word multiple times after using a letter, I had to somehow only use each letter once and at the same time preserve the word list. Overall it wasn't too bad of an issue, I just implemented a specific array for the validity checking that would override as letters were identified.

I also got stumped for longer than I would like to admit because I closed the scanner prematurely, but that wasn't too bad either.