

## Final Report: Battleship

### Team members:

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### Things learned:

For many of us in the group, this is the first big team project where we got to choose exactly what we wanted to do, and how to accomplish it. The most important thing that we learned is the importance of communication, thorough planning, and workflow.

The project had a rocky start, as nobody knew how to use version control (git and GitHub were used for this project). We had assigned tasks from milestone #2, but that quickly fell apart as not everyone could work at the same time. On the worst occasions, people would accidentally overwrite each other's work, and we had a lot of trouble understanding how different objects interact with each other due to poor communication. Our initial incompetency with git and poor communication caused the project to start out rather slowly. However, as we learned how to use git, we were able to assign tasks much more effectively. The project's development pace sped up considerably, and communication errors occurred less often once we learned how to set tasks to be done aside as branches and merge them as the individual tasks get completed by whomever is responsible.

We also learned the importance of having good documentations and coordinated development - especially for larger programs. As the need of the program can change unpredictably along development, it becomes more bothersome to modify large parts of the program as the program grows just to accommodate new features. The rigor of which could be reduced with good documentations on the purpose of a variable, what a function will output and what inputs it may need, etc.

### Future plans:

Lastly, we learned about the sweet taste of victory when the program finally meets our demand. After 1009 lines of code, 80 commits on GitHub, and many moments of both frustration and elation, we are proud to have set out a goal for a team project, and complete it. The experience of designing a rudimentary AI definitely sparked interest in a few of us in AI

development for video games. The realization of the power of version control blew us away, and we will do our best to learn it and use it for the rest of our academic and professional career. Only thing we wish we could have done more with the program is to implement a simple GUI and a more complex AI. This project was invaluable as a learning experience, and it gave us a taste of what working in a team environment in the computer industry is like. Overall, we are very happy with how the project turned out, and we look forward to more team projects in the future.