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CSCI 1300 Project 3 Report

For Project 3, my partner and I chose to do a text-based survival game. We first prepared for the project by brainstorming game ideas. After discussing many ideas, we settled on the idea of a survival game because we thought it was specific enough so that we had a clear understanding of the game's objective, but still broad enough so that we could add complexity to it. We then mapped out a sheet of paper the objective of our game and all the components that we wanted to include in our game, including things like how players would be able to score points and what kind of tasks they would be able to do. Mapping out our ideas made it much easier for us to organize our classes and build our code skeleton. For example, we had mapped out that we wanted players to be able to hunt, gather plants, and build shelters, which later led us to create an animal class, a plants class, and a shelter class. We also created a document where we used pseudocode to plan the chronological order of our game and organize when we wanted players to do what. Our code skeleton was extremely helpful when we began coding because both my partner and I were on the same page and had a clear vision of what we wanted our game to come out. Our pseudocode helped keep us on track of where we were in our code and having header and implementation files made it much easier to just create and use objects as we needed them. While our game turned out how we wanted it to, I believe that our code could be much more efficient. We had a lot of repetitive if-statements that we could have turned into a function rather than just reiterating them over and over again. This would have cleaned up our code, making it shorter, easier to read, and overall more efficient. I feel that we could have also expanded on some of our tasks to make them more complex and the game more interesting, but my partner and I agreed to focus more on getting our code to compile and run rather than making our game extravagant. Overall, however, my partner and I were able to space out the workload so that we made a little bit of progress each day but didn't overwhelm ourselves. Spacing out the work and creating a schedule for both of us to follow allowed us to work efficiently while juggling other schoolwork.

When coding our sorting algorithm, my partner and I didn't have very many issues. I believe our project went so smoothly because we took the time, in the beginning, to thoroughly discuss and plan out what we wanted for our game. We didn't waste time arguing about our game and we rarely had miscommunications. Each day before we began working, we set a goal for ourselves to code up to a certain part of our game. This ensured that we would make progress each day without stressing and overwhelming ourselves. My partner and I regularly communicated with each other and kept each other updated on what parts we worked on. We created a shared Github repository that we regularly updated so that both team members always had access to the most current version of our code. This way, we could both work on the project whenever we had spare time without having to coordinate with the other person, as there were many days where our schedules didn't sync up. When we were able to work together on the project, we took advantage of VS Code's Liveshare feature. This allowed us to see what the other person was doing and for us to code together. It also made debugging a lot easier because we could both see the code and discuss different perspectives on what the problems in our code could be. Often, my partner would point out a mistake or logical fallacy that I hadn't noticed, and I was able to do the same for her. I also believe our project went so smoothly because my partner and I have the same work ethic. We both consistently upheld our ends and equally contributed to the project. We both showed up on time for our scheduled meetings and could trust the other

person to do their part. Overall, I think having a clear plan from the beginning, open communication, trust, and good work ethic allowed my partner and I to efficiently and successfully complete project 3.