

Project 3 Report

In order to prepare for the project, we first needed to decide what game we wanted to program. We both decided that we wanted to follow one of the games given to us (Pokémon, Oregon Trail and Game of Thrones). We looked over all three games. We noticed that both Pokémon and Game of Thrones had a grid system for the character to move around in and we decided that would be difficult. Both games also had a lot of advanced mechanics that we would have to program in. The Oregon Trail game had a linear path the characters moved along. It seemed to both of us that it would be much intuitive to program Oregon Trail than the other two games. We decided to pick Oregon Trail as our game to program.

The first thing we did before we started programming is to design how the program will be programmed. We decided we needed a Class called player that keeps track of all of the people in the wagon and which people are dead and alive. The class also had method functions that allowed for the changing for all of the data. Then we needed to make a class called Utilities. This class would hold all of the information on how many parts, cash, oxen, bullets and med kits the group had. It would also have method functions built in that would allow the data to be manipulated. We decided we would need to have 2 random functions. The first random function takes in a set of numbers and returns a number in that range. The second random function takes a percentage and returns true that percentage. The next class was the misfortune class. This class can be called and handles all of the misfortune instances. The next class is the shopping class this can be used to pull up the shopping menu and used to navigate the menus. The next class is raiding and when it is called it handles all of the raiding instance. There is another class mileage which handles mileage and milestones. The last class is game, and it takes in user data and outputs if it should end the game. All of these classes and functions are implemented in the driver class. The driver class has some more functions and is used to reduce the amount of coding needing to be done in the main.

One of the problems we had is that we built too many individual classes instead of directly implementing that class into the driver class. If we would have started thinking about the driver class first and then built all the other classes off of the driver class are coding would have gone faster and smoother. Another tricky part of this project was sharing are code between each other. We should have used sometime of dedicated software instead of emailing our code back and forth.

What we did do well was making sure our smaller code blocks compiled and run before putting it into the larger code. This allowed us to only have minor errors after we were testing our final program. Another obstacle we overcame was how to link all the classes together and designing a large program. At first, we thought we would only have individual classes and then in our main we would call all of the functions. However, this doesn't work that well because all

of the classes have to be in sync instead we had make a driver class to bring all of the classes together.