

I was far too ambitious for this project. After two weeks I feel like I have semi working demonstration of something that I want to make and I'm extremely excited. The game I wanted to make didn't exactly come to fruition here, but I did create a decent base for a game that I want to try and create. I started designing my game as soon as the final project was released and I think I made a few mistakes that were costly to me. First, my design wasn't fleshed out enough. I didn't create a detailed enough design and plan out how exactly things would occur. Second, I had a big idea and a short amount of time to create it. I spent too much time thinking of Character design and not enough time was spent actually thinking about the nuts and bolts of the actual game. I spent time looking into how to add colors and a flashing 'X' as your position and I wasn't thinking about the inventory system and how that would function. Overall though, I'm pretty happy with how my ugly project came out.

My design for this was to create a video game that is a bit like our project 3 and 4 but a little bit more expansive. I wanted to make a game where you moved around the map fighting monsters, collecting loot, and leveling up Heroes until you could fight the final boss and save the land. I had to change the plan for this a bit due mostly to time constraint. I wanted to create several more items that would have more effects and items that could be used in battle. As I previously stated, my design was too ambitious for the short deadline. Something that I feel that I'm severely missing is good comments. I tried to make comments as I was going along, but I still don't feel that I made sufficient comments. As the deadline has come closer and closer, it's clearly visible that my code looks worse and less organized. Over the break, I'll probably continue working on making menus more user friendly and intuitive, clearly stating how items work, organizing and making comments to my source code, and balancing the game.

I ran into many problems while making this game. The inventory system and figuring out how to add and remove items was one of the more complex things I've had to do this quarter and it seems like such a simple problem! I ended up using a vector of pointers to Item objects that I could use and limited it using just an if statement. Game balance is a problem that I didn't really figure out. I know there can be instances where you can be stuck in combat by using too many defense potions and not upgrading characters causing a stalemate where you can't hurt the enemies and they can't hurt you. I didn't have enough time to come up with a really good solution to that.

The fight sequence was another major problem that I ran into. I wanted speed to play a role in ranking the character so that they would fall into some kind of queue that would be an attack order. I should have had a more randomized "roll for initiative" type of sorting now that I think of it, but what I went off was getting all characters, monsters and heroes, putting them into a vector, and then sorting that vector with quicksort since that was the sort that I used earlier in the course. Then I made a copy of that vector and popped it off until there were no Characters in the copied vector and then copy all the characters from the original vector over again and repeat the process.

Overall I am really surprised and happy that I could even create this. Starting at the beginning of the quarter, I had wanted to create something like this. I had an idea to create something that resembles this but I didn't really feel confident that I could. After taking this course, I feel like a more competent computer scientist and although this is just the beginning for me I'm still pretty proud of this accomplishment.

Test Cases	Expected Outcome	Actual Outcome
Collecting the 4 keys	Ends game with winning message	Ends game with winning message.
Party dies	Ends game with losing message	Ends game with losing message
Leave game	Game ends	Game ends
Time runs out	End game with time run out message	End game with time run out message.