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Prof. Tucker

Final Project Proposal

The problem that I am looking to solve is boredom, as well as some aspects of developing improved skills of creative thinking, problem solving, cognitive flexibility, strategic thinking, and decision making. The problem of boredom can be solved with games, as well as the development of the listed skills, plus more depending on the game. With the limited programming experience obtained thus far, I will only be able to implement a text based game, but, with some creativity, I will still be able to implement some interesting scenarios and test decision making skills and potential disaster avoidance (player or ally death, or spawning of mass amounts of enemies, etc.).

I will begin to approach the problem by developing the UML class diagrams for any of the classes that I want to implement, such as the character, monsters, items, etc. and how they will interact with one another. The next thing that needs to be done is to write down some key events that I want to happen within the story, such as how it will begin and end, and any story altering events that will occur. I will need to alternate back and forth between the UML diagrams and the storyline to make sure that I have everything in the UML diagrams that will enable to storyline to be properly executed. The next step is to determine what file I/O that I want to implement, what will be stored to and read from the files, and how that will effect the class diagrams, if at all. After a I have the UML diagrams all created and matching up with the storyline implementation, I can proceed in creating the class.h and class.cpp files and make sure that they all work by making a brief test program in the int main() function. When I have satisfactorily tested and refined the class files, I will double check that the UML diagrams match up with the class files that I just made and make any changes if necessary. After the classes have been made and the UML diagrams have been checked, I will upload them to GitHub as a progress update and continue with writing out the storyline and any additional content that will be implemented within it, time permitting. The next step after the storyline has been written is to put it into code and check it with the class files by testing them to make sure they work. The final step is to proofread the storyline and make sure that it all says what I want it to say, and to debug anything that happens but shouldn’t or doesn’t happen but should. Periodic updates will be made to GitHub with comments annotating what was added/removed/changed.

The anticipated challenges for this project that I see at the beginning are the development of the storyline so that is uses as much of the new content learned in this course as possible, the full implementation of the class files and the new content in the last few chapters covered in the course, the creation of mini-games within the storyline, a fully functional combat and looting system, and the short timeline of a week to make the game. I will also need to research many game theory concepts and try to implement them into the game. These are the main challenges that I anticipate running into during the creation of this game, but I know that there will be more challenges that I have not anticipated that I will run into as well.