Project — Part 1

CS 205

Overview

A MUD, or Multi-User Dungeon/Dimension/Domain, is a multi-player text environment in which the player types commands and the MUD responds with text. A MUD consists of players, rooms, items, and MOBs (MOBile non-player characters). Players within the MUD can move about from room to room, collect items that affect them or allow them to do things. MOBs can also move from room to room and players can interact with them. Rooms in a MUD are thought of as locations rather than indoor areas. For example a "room" could be a clearing in the woods with paths leading to the north and west. Rooms have exits that connect them to other rooms, descriptions, and contents that include items, players and MOBs.

Your Task

Design the classes for a MUD. You need to produce both a written description of your design as well as UML diagrams. As you proceed, consider that you want your design to give you flexibility to perform modifications as you refine and modify your project later on during the semester. For example, if you are handling input and output in many different locations this will complicate, or even prohibit, changes to handle the I/O within a GUI later on.

Requirements

1. Players must have a name and must be in a location. They are able to carry items with them as they travel. They are able to move between rooms through the use of commands.

2. Rooms have a description and a list of possible exits as well as a list of contents (items, MOBs, and players).

3. Items may be located in a room or carried by a player.

4. MOBs are able to move between rooms independently from the actions of players.

5. The commands issued by players include the set of movement commands (north, south, east, west, up, down, etc.) as well as commands to "get" and "drop" items. Finally, the command "exit" will terminate play in the game. Additional commands may be added at your discretion.