

CSC111 Winter 2024 Project 1

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Enhancements

1. Furniture/LockedFurniture in world

- This enhancement acts like a furniture object at a location. Just like real life, items can be stored inside Furniture objects. Items inside furniture objects can only be picked up and interacted with if the furniture has been opened. Players can receive points for opening Furniture by typing the action “open {furniture name}”. The LockedFurniture class inherits the Furniture class. When a player opens an instance of LockedFurniture, they are prompted to enter key. An instance of a Furniture can have special custom actions specified in the items.txt file. For example, the blackboard in the game can be read by the action “read blackboard”.
- High
- We believe this enhancement is of high complexity because it made it a lot more complex to read the items.txt file Furniture objects and Items that are stored in furniture need to be formatted differently in the text file, which required code to check if a line indicated that an “item” in the text file was actually a furniture object. Then, there would be a different case to initializing the Furniture object. Additionally, code had to be written that did not allow a player to pick up an item if it was stored in an unopened Furniture. Consequently, Furniture had to have attributes that represented opened status and Items in furniture LockedFurniture also inherits the Furniture class, but the method, open, had to be overridden because it has to read input from the user and check if it equals the key stored in the key instance attribute to be opened. Furthermore, items stored in Furniture that were picked up after opening a Furniture object could be dropped anywhere and then picked up in that location without being “stored in furniture.” So, the drop method for the Item class had to be implemented such that an Item no longer had a corresponding Furniture attribute when the method was called. This enhancement required a lot of consideration of cases for implementation.

2. Custom actions for Item and Furniture objects

- Basic description of what the enhancement is
- Low
- Reasons you believe this is the complexity level (e.g. mention implementation details had to include these actions and which items/furniture objects it could be performed on when a player called menu

3. PowerUp items

- Removes a specified number of moves when player picks this item up
- Low
- Reasons you believe this is the complexity level (e.g. mention implementation details

4. Missions

- Players can complete missions that gives them items that they need to win the game
- High
- Reasons you believe this is the complexity level (e.g. mention implementation details)

Extra Gameplay Files

gameplay1.txt

Shows gameplay that involves custom actions with items and furniture.

gameplay2.txt

Shows gameplay that involves a player opening a locked piece of furniture with the correct key.

gameplay3.txt

Shows gameplay that involves a player picking up a bike PowerUp item and performing a custom action on the PowerUp.

gameplay4.txt

Shows gameplay that involves a player completing the mission, which involves: interacting with a food truck, going to the lecture room in Myhal, then delivering cash to the food truck in exchange for the player's lucky pen.