COMP 1451 – Assignment #3 (50 points)
Due: 11:59 p.m. the night before Session 8

The Game
Your task is to implement an adventure game. Use the zuul-better project from chapter 7 as your starting point. Use the scenario described on the next page as the basis for your game. You may add features, but you must use the room layout shown.

Functionality – 30 points
- There are items in all rooms. Every room can hold any number of items. Some items can be picked up by the player, others can't. An item that can be picked up can be put down.

- The player can carry some items with him/her and put them down in a different room if he/she chooses. Every item has a weight. The player can carry items only up to a certain total weight.

- The player can win. This is outlined in the scenario.

- Each time the player moves to a new room he/she is told what the room is, where the exits are, what items are in the room, and what the player is carrying.

- Add commands "take" and "drop" to allow you to pick up and put down an item.

- Add command "buy" that allows you to acquire an item that is for sale.

- Add a command "back" that allows you to retrace your steps from room to room.

Testing – 10 points
- Testing will be done with the JUnit test feature provided with BlueJ.
- You will provide a test class for each of : Game, Room, and any additional classes you create.
- The test classes will thoroughly test all public methods in your project. Be sure to use both positive and negative tests.
- The test classes will be well documented, i.e. will have appropriate comments for each class and each test method.

Report – 10 points
You will submit a report that includes:
- a description of the project, explaining each class and what it is responsible for.

- comments on code quality: what consideration was given to issues such as coupling, cohesion, responsibility-driven design, maintainability, etc, during your design/implementation?

- known bugs or problems.

Create a .zip file containing your entire BlueJ project (zip the folder, not the individual files) and the report in a Word document. Name the .zip file with your name and the assignment number, e.g. "Susan_Wong_Assign_3.zip". Upload the file to WebCT before the cutoff time.

The scenario

You arrive at the entrance to a campus you are not familiar with. You are here to write an exam. You have to find your exam room. You arrive without any pen or pencil, and with nothing write on. So before going to the exam you must find the campus store to purchase these items. You also need a textbook. Your instructor has offered to lend you a textbook, but you don't know where her office is. So you must find your instructor's office and get the text. You must also go to the security office to get your identity card. You cannot enter the exam room without it. You have no money. Your friend has offered to lend you money and will meet you in the pub.

To win the game you must enter the exam room and must be carrying all the required items: textbook, notebook and writing implement.

Here is the layout of the campus: