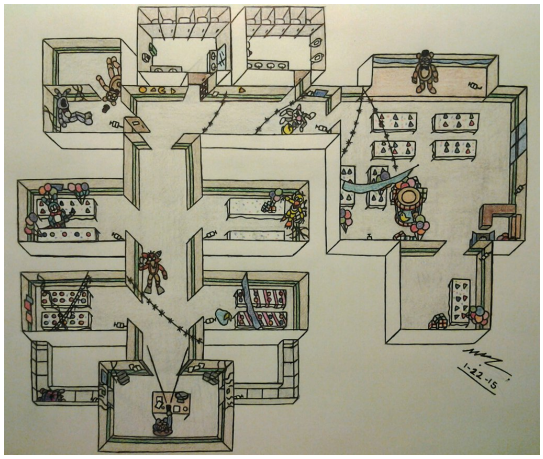
Assignment 3
DUE October 31, 2018 at 11:55PM



The blackout period for Assignment 3 will take effect at 11:55PM on Monday October 29, 2018. No question(s) about the assignment will be answered via electronic communication or in person.

We expect that you will submit ORIGINAL WORK for all assignments in the course.

What constitutes original work?

- All work is your own. Cite any full or partial solution that has been inspired by the textbook or any other sources.
- You may discuss algorithmic ideas with your classmates, but must go away and write up your solutions separately.
- No sharing or viewing computer files that may contain partial or complete solutions.
- No copying another person's computer files that may contain partial or complete solutions.
- If you are unsure which actions constitute plagiarism, please come and talk to any of your instructors.

Refer to the end of this handout for a list of what to submit for this assignment.

Add inventory and rooms to your adventure game!

1. In your game, a player begins with a collection of items, typically called the player's *inventory*. Create a working inventory system for your game, one where items can be picked up, held in inventory, and dropped from inventory at a player's request. At any given prompt, a player can input 'I' or 'i' or 'inventory' or 'INVENTORY' to see what items he or she currently has in inventory. This information should be displayed to the screen.

2. In the classic adventure game genre, a player has the ability to move throughout the game. We only need to worry about the player moving in two directions: forward/backward and left/right.

This gives us a birds-eye view of the game where we can identify different rooms using a *variation* of the standard coordinate plane, where the x-axis represents the horizontal position of rooms and the y-axis represents to vertical position of rooms. In game playing, the top left-hand corner represents the starting room and has a label of (0,0). For instance, in a game with nine rooms, we would have the following grid:

(0,0)	(1,0)	(2,0)
(0,1)	(1,1)	(2,1)
(0,2)	(1,2)	(2,2)

Then a player can move from room to room by using one of the following actions: North, South, East, and West. These actions correspond to Up (y-1), Down (y+1), Left (x-1), and Right (x+1), respectively.

For this assignment you will divide your playing space into at least two rooms, using the coordinate system defined above.

3. Rooms, too, can contain items that a player can pick up. In each room, a player can input 'R' or 'r' to show the items currently in that room but NOT currently in the player's inventory.

   In this version of your game a player must acquire at least one item in their inventory *during play*.

Feel free to add to your story if that helps you to better satisfy the requirements of this assignment. Continue to keep your story light-hearted and PG.

Remember that we will run your program by typing `adventure()`, so please ensure that your program contains a function called `adventure` that launches the play of your game.

Submit to Moodle

- A file called `a3.py` that contains your adventure game with player inventory, at least two rooms, and room inventory. Please ensure that your name appears at the top of your file.

Entry 3 in your OneNote Class Notebook ePortfolio

- In your Assignments tab, create a new page called *Assignment 3 ePortfolio*
- Record your analysis of your learning for this assignment on that page. Remember that you don't need to share this page with us. It is timestamped, and we will only grade pages that are timestamped before the deadline.