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Assignment 15

Exercises

List of Files

A15E1.cpp
A15E2.cpp

Projects

Understanding

Pretty straight forward, this seems like a maze game with a predefined maze. The user wants to get from point a to point l and can only go through specific points at a time. The user sees what room they are in, and what moves they can make.

The other exercise takes the same program and adds the ability to keep a list of all rooms you've entered and a list of where you are vs a.

Design

Not too much design was needed since most of the program was already laid out. There was a class for the nodes and various functions to keep it running. I added the basic design to the bottom of this document.

Testing

The bulk of my testing actually came in making sure the user's input values were valid. I was having a problem where my recursive function was resetting the array with possible choices before I had a chance to check the actual input values. Honestly, that section took me 75% of my total programming time.

Reflection

I expected this program to actually be a lot more difficult than I thought. Based on what people were saying in Piazza it seems like everyone was having a hard time but it seemed to make sense to me on my initial thoughts and design.

I was surprised how much time went into fixing the 1 issue in the Testing section above; but it made complete sense. Because I was doing this recursively (which also seemed like the most logical way of doing this) my recursive function was calling the getMove function before I had a chance to check the user's input. I moved the code for the array check into the same function so that it runs together.

Classes:
Node

Functions:
Moving to a spot
Getting the different movement options
Setup each node
Setup each node's neighbors

1. Program starts
2. Shows user where they are and where they can go
3. Asks user for input
4. If input valid
    a. If input valid, go back to step 3
5. Moves to that spot
6. If they are not in the last room, go back to step 2
7. Otherwise, end the game!