Practicum 7 – Connectivity

Assignment Details

Assigned: March 11th, 2014. Due: March 13th, 2014 at midnight.

Background

This practicum assignment will cover an implementation of the "all room/tunnel tiles must be connected" requirement of Programming Assignment 2.

The Practicum

Log in as normal, update your source control tree. You should have a `la7` directory and a file – `main.cpp` – in it.

Open up `main.cpp`; it includes a chunk of code to set up the above-mentioned requirement.

Note: This program uses a `vector<string>`; you should have something else – like, say, a two-dimensional `vector` of `Tile`s – to contain tile information.

This is done primarily to keep this practicum simple. The easiest way to apply this code to your PA2 is going to be to generate a `vector<string>` from your `DungeonLevel` object – which should be a simple loop iteration…

You can, of course, convert this code to use a 2D `vector` of the type you're using for PA2 – either is perfectly valid (although make sure you don't overwrite your dungeon level with `markPosition`!).

markPosition

There's a function defined but contains no logic. The function as designed should:

- Check to see if the x and y coördinates provided are within the bounds of the vector provided, and if not, return
- Check to see if the tile at the specified coördinates is *not* a room or tunnel tile, and if not, return.
- Mark the specified tile with an **'X'**.
- Call the function on all adjacent tiles.

The first two rules are there to prevent the function from getting into an infinite loop. The second two actually perform the test.

Once this is working correctly, the provided function should finish up the last of the test…