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CST-250

01-18-2024

Milestone 3

**Class UMLs**

**A computer screen shot of a computer screen

Description automatically generated**

Updated the Board class to reflect the new floodFill function.

**FloodFill Function Flowchart**

**A screenshot of a computer screen

Description automatically generated**

Shows the flowchart for the recursion function.

**FloodFill Function Code Screenshot**

**A computer screen with many colorful text

Description automatically generated**

Shows the code used for the flood fill. Start with creating an ArrayList to hold all the surrounding cells. From there, we check to see if the selected cell has live neighbors. If so, we skip the recursion part. If not, we gather all the live neighbors, cycle through them, and check to see if they are already discovered/visited. If not, we set that value to true and call the recursion function again but with that cells position and repeat the process.

**Recursion Example 1**

**A computer screen shot of a black screen

Description automatically generated**

A snake-like flood fill. I think it shows how the corner cells all work properly and are also updated correctly.

**Recursion Example 2**

**A computer screen shot of a black screen

Description automatically generated**

Just a side note, the above image is not a result of a “single” input. It’s the second time flood fill was used in the same game, just at the bottom left side of the map instead of top right. Just thought it looked cool.

**Recursion Example 3**

**A computer screen shot of a black screen

Description automatically generated**

Another example.