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CS231 Lecture A, Lab D

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Adrian’s Project 2: Conway's Game of Life

ABSTRACT

In this project, we used java to create a visual simulation of cells following the rules given on Wikipedia regarding Conway’s Game of Life. As such, the project had four classes — cell, landscape, landscape display, and life simulation — to implement the game. Building upon the previous Blackjack project, we practiced class-based programming, which is fundamental to the Java language. The main coding focus of this project was to be able to create, copy, and manipulate arrays. These tools allowed us to create a continuous simulation of life rather than changing one cell at a time.

RESULTS (video file is in the folder)

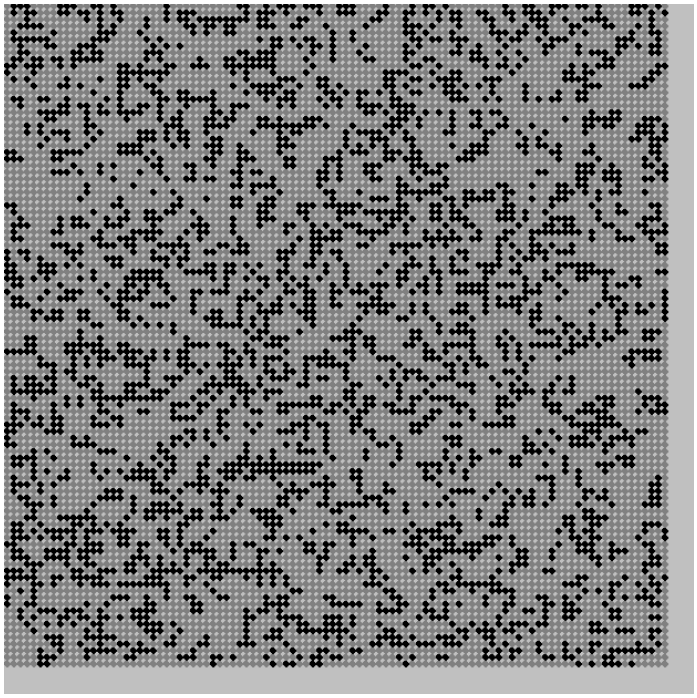

Figure 1: Time Step 1 of Conway's Game of Life

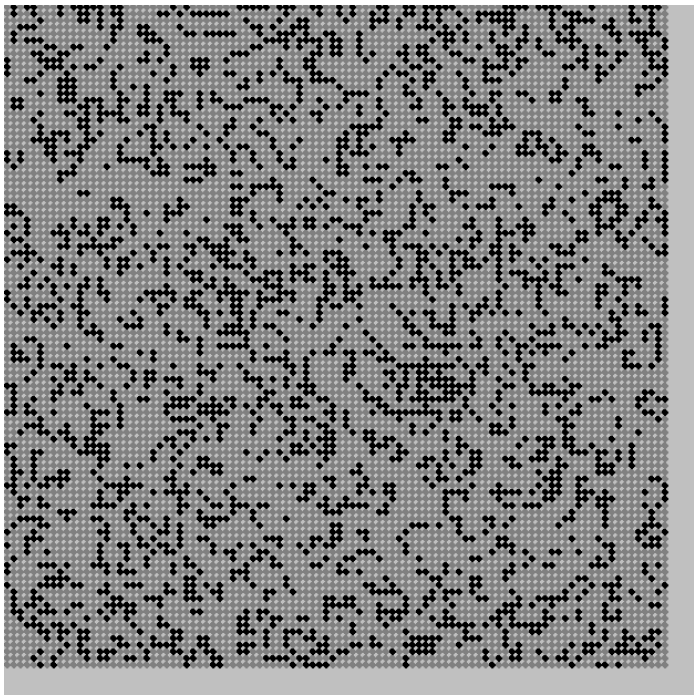

Figure 2: Time Step 2 of Conway's Game of Life

EXTENSIONS

For my extension, I imported the scanner class into life simulations so that the user is able to input the rows, columns, and chance of the landscape method. In addition, the scanner allows the user to loop through only a number of time steps rather than continuously looping through the life simulation. These extensions are commented and implemented in lines 19-32 of the LifeSimulation class.

Collaboration:

I received help from Duc Nguyen and Professor Bender on the project. I also consulted with Professor Al Madi.

Libraries:

In addition to the libraries that were in the initial sudo code files, I imported the scanner class.