Project Title: Simplified Version of the Game of Life

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Project purpose: The purpose of our project is to create a visual simulation of the Game of Life on a 6 x 6 grid.

Problem: The Game of Life, also known as Conway’s Game of Life, is a simulation of a population that runs indefinitely in a 2D grid after being given an input state. Each cell of the grid has two states - alive and dead. The state of the cell is determined by its neighbors. The neighbors of a cell are the cells that are directly adjacent and diagonally adjacent to it. The following rules determine the state of the cell:

1. If a the cell has less than two neighbors that are alive, it dies
2. If a cell has two or three living neighbors, it stays alive
3. If a cell has more than three living neighbors, it dies
4. If a dead cell has three neighbors, it comes back to life.

The grid which the Game of Life is played on is infinite, so it has no boundaries.

Solution : Our project intends to simulate the Game of Life on a finite, 6x6 grid visually. We will let the user set the initial conditions. Then, our program will loop over each cell to determine its state. One iteration will be defined as one generation. Cells on the edge will have their state determined using their available neighbors. Animation will be done using javax.swing and other libraries.

Tasks -

Shriya

Vivian

Resources -

<https://docs.oracle.com/javase/tutorial/uiswing/events/mouselistener.html> ?