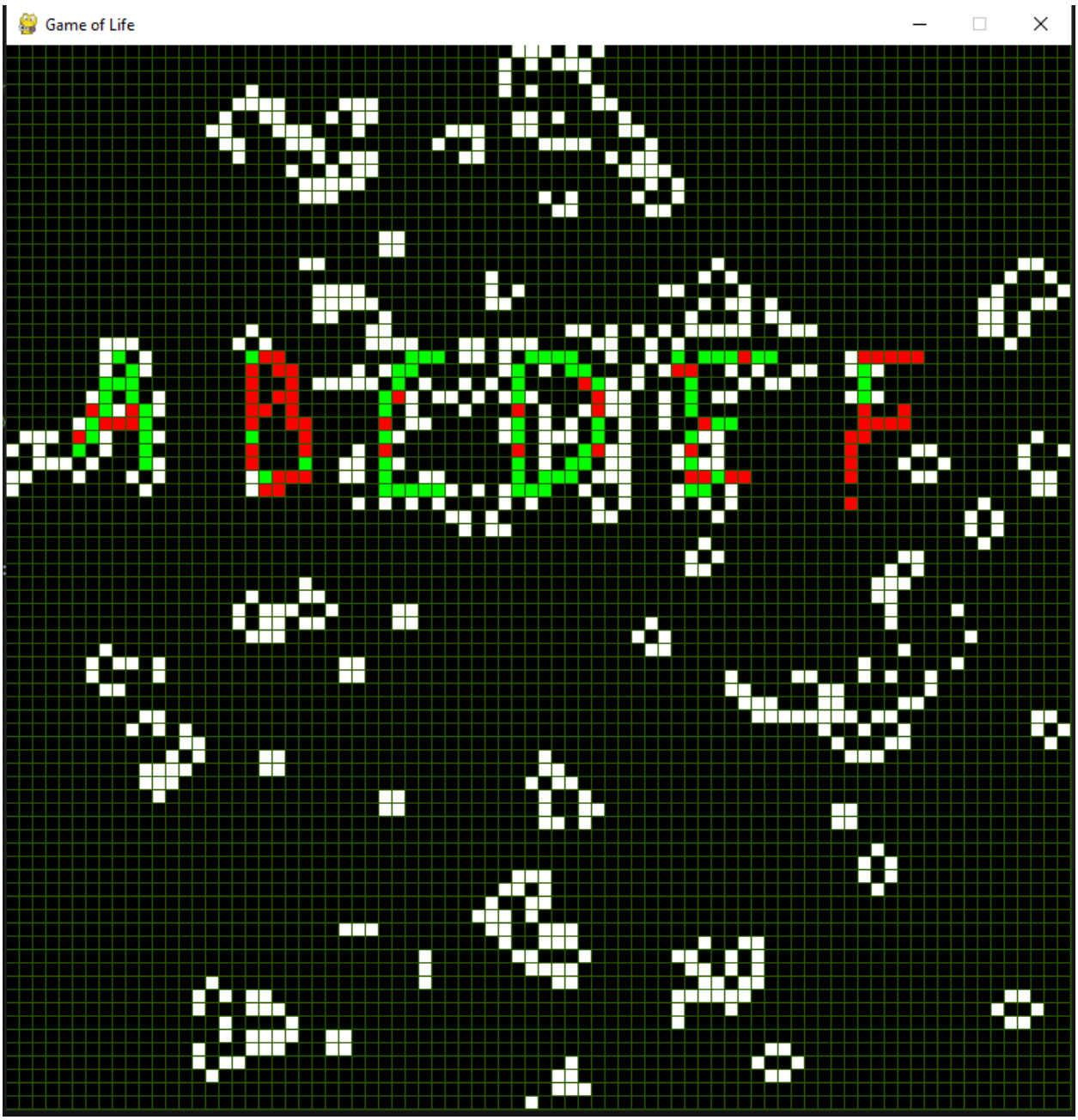


User Guide for "Game of Life"

Welcome to the "Game of Life"!

It's an engaging simulation where you can observe the evolution of cells on the game board. Let's explore the basics of the game and how to interact with it.

Usage

To run the program, execute the following command in your terminal

python game_of_life.py

Read description in console and press Enter

Objective of the Game

In the "Game of Life," the objective is to observe the behavior of cells on the game board. You can modify the state of the cells and witness how they interact and evolve over time. There is no specific goal or task in this game, but you can enjoy beautiful patterns and intriguing cell behaviors.

Controls

The "Game of Life" provides you with several ways to interact with the game board:

Left Mouse Button (**LMB**): Click or hold down the left mouse button to change the state of a cell. If the cell is dead (black), it will become alive (white), and vice versa. If the cell is green, it will become red, and vice versa.

Right Mouse Button (**RMB**): Click or hold down the right mouse button to toggle a cell between static and non-static states. Static cells can be red (dead) or green (alive), depending on their previous state.

Pausing and Starting the Simulation

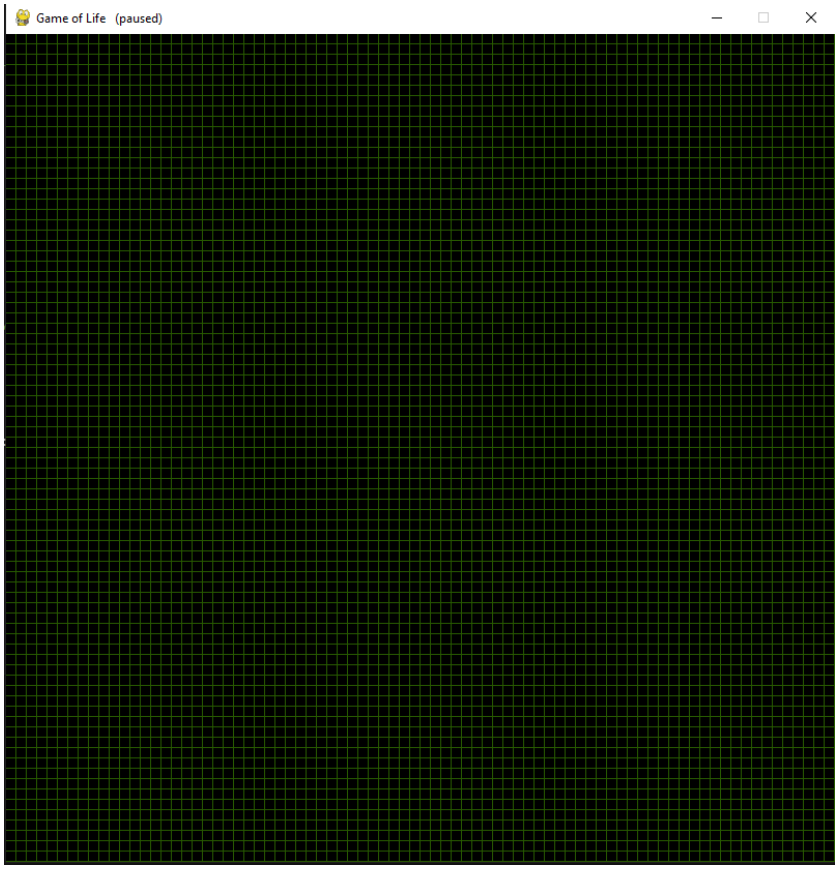
The "Game of Life" starts in a paused state. You can identify this from the window title, which displays "Game of Life (paused)." Before starting the simulation, make sure you are ready.

When you are prepared to begin the simulation, press the Spacebar key. Now, you can observe how the cells evolve on the game board. If you need to make any changes or adjustments, you can press the spacebar to pause the simulation. This allows you to modify the state of cells or their static status.

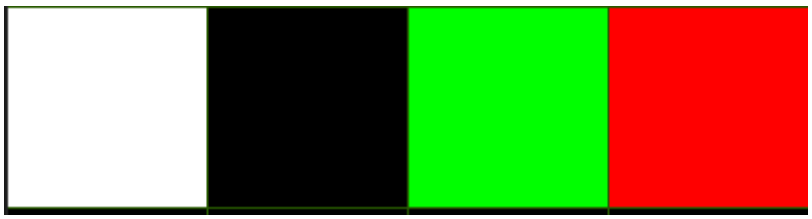
Observation and Experimentation

The "Game of Life" does not have a specific goal, but you can observe and experiment with different patterns and rules. Notice that some patterns may remain static, while others form cycles or exhibit movement and create interesting effects.

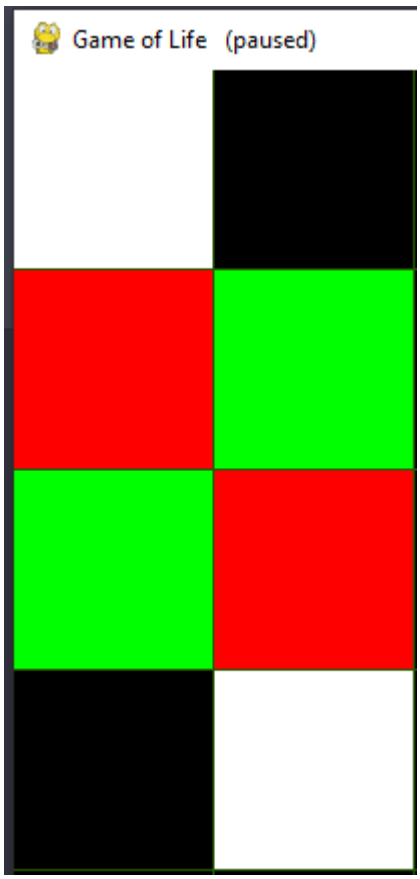
Enjoy the game and explore various patterns and rules! You have an entire world of cellular automata to have fun with and discover. Have a great time and good luck in creating your unique patterns and rules!



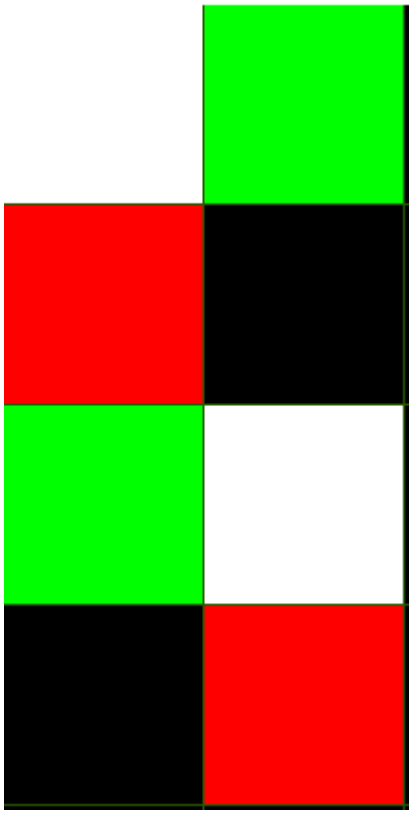
the initial state of the game on pause.



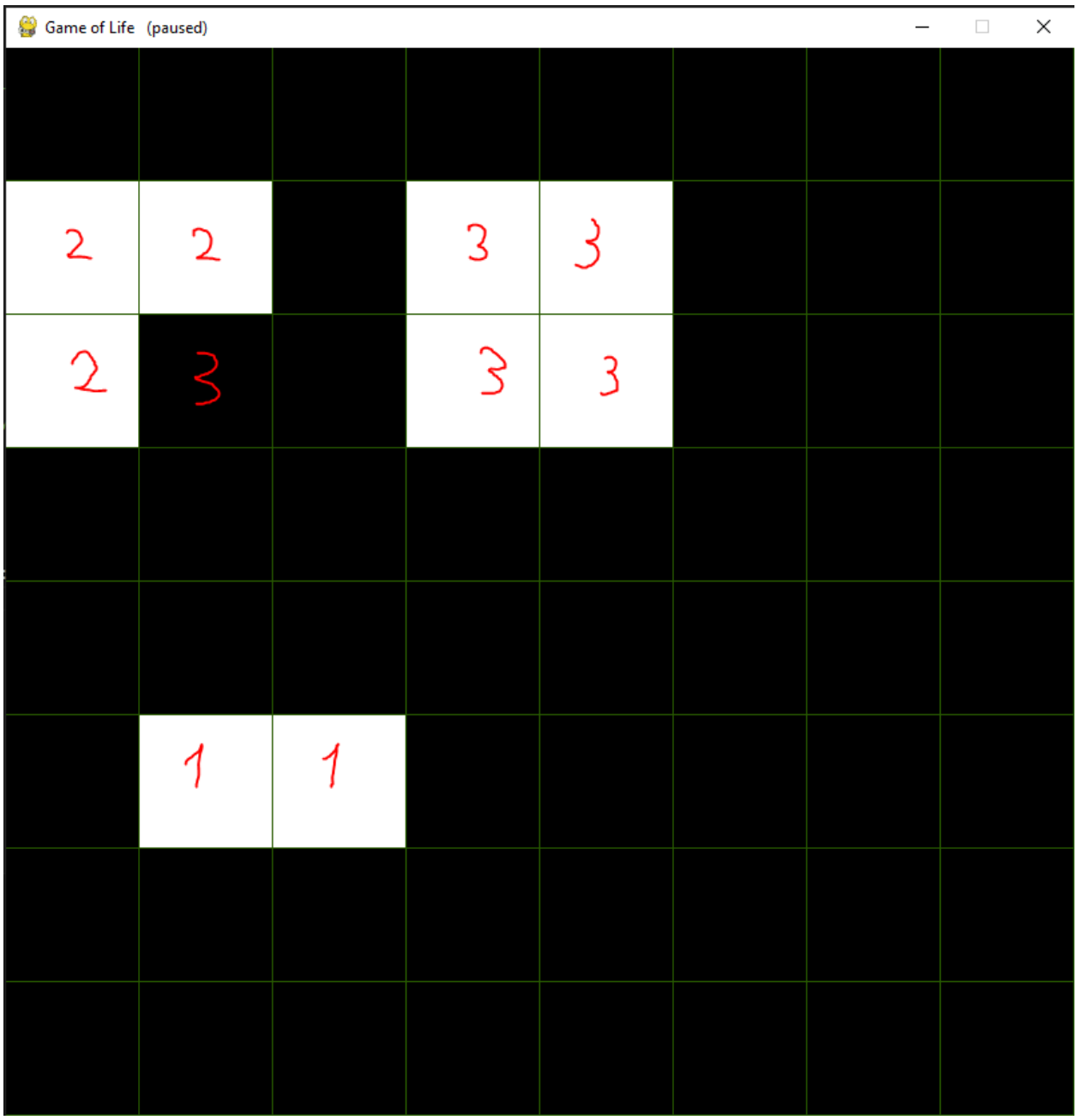
from left to right: Alive cell, dead cell, static alive cell, static dead cell.



what happens if I click on a cell with the left mouse button during the pause.



what happens if I click on a cell with the right mouse button during the pause.



Example of counting the neighbors of a cell.

If a white cell has 2 or 3 neighbors white + green, it will be white on the next move, otherwise black. If a black cell has exactly 3 white + green cells, then it will turn white, otherwise it will remain black.

Tip. You can hold down two mouse buttons at once