

Goal of the program

- The goal of the program is to simulate Conway's Game of Life, a cellular automaton devised by mathematician John Conway. The program provides a menu-driven interface that allows the user to start the simulation from a given state continuously, or step by step, save that state, or load one.

How to use the program

- **MenuStates:**
 - **MENU:** Move the selection up ('w' key), or down ('s' key), and select a state ('ENTER' key).
 - **SET STATE:** Enter the width and height of the new board (2 integers separated by a space). Then move the selection with the WASD keys, flip a state with 'ENTER', or press 'ESCAPE' to return to the main menu.
 - **LIFE:** Starts the life simulation in continuous mode. The simulation will keep running, updating the board and displaying the current generation and population. Press 'ESCAPE' to return to the main menu.
 - **LIFE STEP:** Starts the life simulation in step mode. The simulation will update the board one generation at a time when you press ENTER. Otherwise, same as 'LIFE'. Press ESC to return to the main menu.
 - **LOAD:** Move the selection up ('w' key), or down ('s' key), and select a save file ('ENTER' key), or press 'ESCAPE' to return to the main menu. You will see a short confirmation message of the success of loading the selected state, then you will be returned automatically to the main menu.
 - **SAVE:** Enter a name for the save file, then press 'ENTER'. You will see a short confirmation message of the success of saving the current state, then you will be returned automatically to the main menu.
 - **QUIT:** Exits the program.

File management

- **File/folder requirements (beside the source files)**
 - Have a file named state.txt, with the correct data format. If you don't have one, open the program and select SET STATE, to create one with given dimensions.
 - Have a folder named "SAVES", as your custom save files will be saved there, and loaded from there