The Game of Life

The aim of the project is to implement the Conway's Game of Life.

The solution should contain at least three classes:
Cell - a single cell that can be alive or dead,
Generation - a set of cells for a given time step - a game board containing cols x rows of cells and methods enabling simulation, including:

- a method generating the board after passing a given number of simulation steps,
- constructor creating a random board with given dimensions and number of living cells,
- constructor creating a random board with given dimensions and population density (the ratio of the number of living cells to the board area),
- constructor creating a board based on a string of characters,
- overloaded == operator enabling the comparison of two boards, e.g. to check if there was any change in the next step (whether a stable structure was created)
- ToString method that returns the board content in a text form,

Game - a class that supports the simulation, enabling its launch on the basis of data entered by the user, displaying the board, saving the game state to a file, reading it from a file.

The interface can be in any form, the program should be resistant to user errors.