CS1428 Lab 6h

# Name: Section:

1. (100pts) Create **lab6h\_01.cpp.** You must implement the game of life in a 10x10 2D array. The game of life is a finite-state-automaton. The “world” is a 2D array of cells. My starter code will generate this for you, copy it into your program. Each cell is either alive or dead. Alive is represented by say, a \* and dead a space. The world advances through iterations or generations. The pattern for the next generation is based upon what the pattern for the previous generation was.

Rules to compute generations:

If a living cell is surrounded by 2 or 3 cells, it stays alive.

If a dead cell is surrounded by exactly 3 cells, it becomes alive.

If a living cell has more than 3 neighbors, it dies of overcrowding.

If a cell has fewer than 2 live neighbors it dies of under-population

Dead cells stay dead.

Your program must process at least 10 generations. Your program must display every generation and it’s label. Keep in mind you must have a backup copy of your 2D array you read from when making your next generation because the act of making the next generation in the same array will corrupt the current generation!

**(\*\*Make sure to include the standard header discussed in lab and to name the file correctly\*\*) Upload your source file to my homework upload. Attach a hard copy of your programs to the back of this lab assignment.**