

# Assignment 4

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February 11, 2023

## 1 What I learned

For this assignment:

- I learned how to work with matrices in C.
- I learned that a matrix in C is a pointer of an array which points to more arrays. The first array represent the rows and the second arrays represent the cols. Additionally, I learned how to clear the array by first clearing the cols arrays and then clear the row array of pointers to make sure that there are no memory leaks.
- I learned how to work with fscanf and how you can use format string to read the values from files that you need for your project.
- I worked with fopen and fclose and other file commands and learned how they work, learned that I need to close files.
- I learned how to write into files for output.
- To work with stdout and stdin I learned there is no need to open or close anyfiles.
- I found out that gcc compiler in some cases finds errors that clang doesn't. Maybe it is a good idea to use both compilers to catch maximum number of errors.
- In c I learned that in some programs you can work with structures without its definition. As long as a pointer to the structure is used and accessor functions are used.
- Learned new case with getopt on how to take strings as an argument.
- Finally I learned how to work with the ncurses library and was able to create a display for the game of life.