

Life and Death in Code

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1 Intro

The game of life is a long celebrated mathematical game created by John Horton Conway. By trying to recreate it in c code, much can be learned that can be used to be a good programmer.

In this assignment, a decent proficiency with pointers, files, conditional statements, loops, and memory allocation are needed.

2 Key Takeaways

In this assignment I learned how to properly work with file inputs in my code, as well as work with the key functions associated with them. One of the biggest hurdles I had to overcome to actually complete this assignment was learning the proper use of the fscanf function and how it could be used within loop conditions. The assignment of the scanned values to the variables corresponding to the amount of rows and columns especially stumped me but I quickly realized that I could use that scan function in my main file without it rewinding the file during the creation of a universe to assign the proper amount of rows and columns

For a long time I was struggling and getting a blank screen while trying to run my code, but after hours of existence in debugging hell led me to the light. Not only was memory supposed to be allocated to the universe, but also to the grid itself!! However, the grid had to be instantiated with values so normal allocation would not work, and the true value of calloc.

3 Conclusion

In the end, I was unable to make the game of life perfectly. All of the command line options work but I still have to figure out how to take care of the two memory leaks left. They were created by an uninstantiated value created by a stack allocation. Valgrind claimed it was towards the beginning of my main but that shall be a mystery to be solved with a tutor in the following week. Overall, this was a fun project to do. Even while sick.