

Coursework 2 – COMP 1921- Reflection

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I give thanks for being given the opportunity to participate in this module and, subsequently, this project. I firmly believe that it has given me occasion to freely explore and implement this project to the best of my abilities.

For Coursework 2, I implemented John Conway's Game of Life, following the same basic rules from the original.

Overall, the project went quite successfully. I have managed to complete the project much in advance of the drafted timeline in the planning report. The project was implemented in 3 phases. Phase 1 involves creating all the logic functions for the game to run, and Phase 2 and 3 revolving around tying the game together and implementing SDL2, respectively. The testing part of the project went exceptionally well due to the method I adopted in creating the logic functions. The 'int' return values allowed for smooth regression testing of the application using Unity and the different phases. Phase 1 and 2 also went relatively well due to prior experience in coding and running C programs from Coursework 1. The modular aspect of the code allowed me first to write a full CLI based program to test its capability before proceeding to Phase 3 of the project. User sided errors have been minimized to a large extent by ensuring that the code reads from and saves to a preset file in a specific form. The program itself obtains all necessary data, and therefore, it drastically reduces any runtime errors.

The hardest part of the work was getting SDL2 and the file read to function correctly. SDL2 is an external package that does not come with the default C programming package. Thus, linking SDL2 with CMAKE on Windows and Linux was a struggle. This also forced me to obtain a third-party FindSDL2.cmake file, which has been referenced in the README.txt file. Having spent more time than expected on fixing this error, I have come to appreciate the productivity increase in using third-party support files in the development phase of a project. Once I got SDL2 to run, I encountered a runtime error where, when the code has manually compiled on the CLI; the SDL2 window wouldn't open. Eventually, I tracked this issue down to the file read function (fopen), which isn't designed to check for files in its parent directory by nature. I recoded the path, and it has hence successfully worked. I intend to ensure the path for all the linked files is appropriately placed in the working directory when programming my next project. The experience has enlightened me to the inhibitions that using certain functions may cause during the development phase.