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Final Project Report

We will leave this extremely brief as it's mostly explained in the demo video.

Design Patterns and Profiling

The command design pattern is used in combination with the level editor in order to fully flesh it out. It's main function is to condense functionality and keep it clear and concise via only specific calls such as execute(). A very easy example is the undo/redo function implementations in the Level Editor scene. Less function calls equals less memory usage.

The factory design pattern is used in the actual played level which features bombs that drop at the players' current position which eliminate the player on contact. The pattern holds the information of the spawned entities and replicates them in an object pool that is much more efficient on memory.

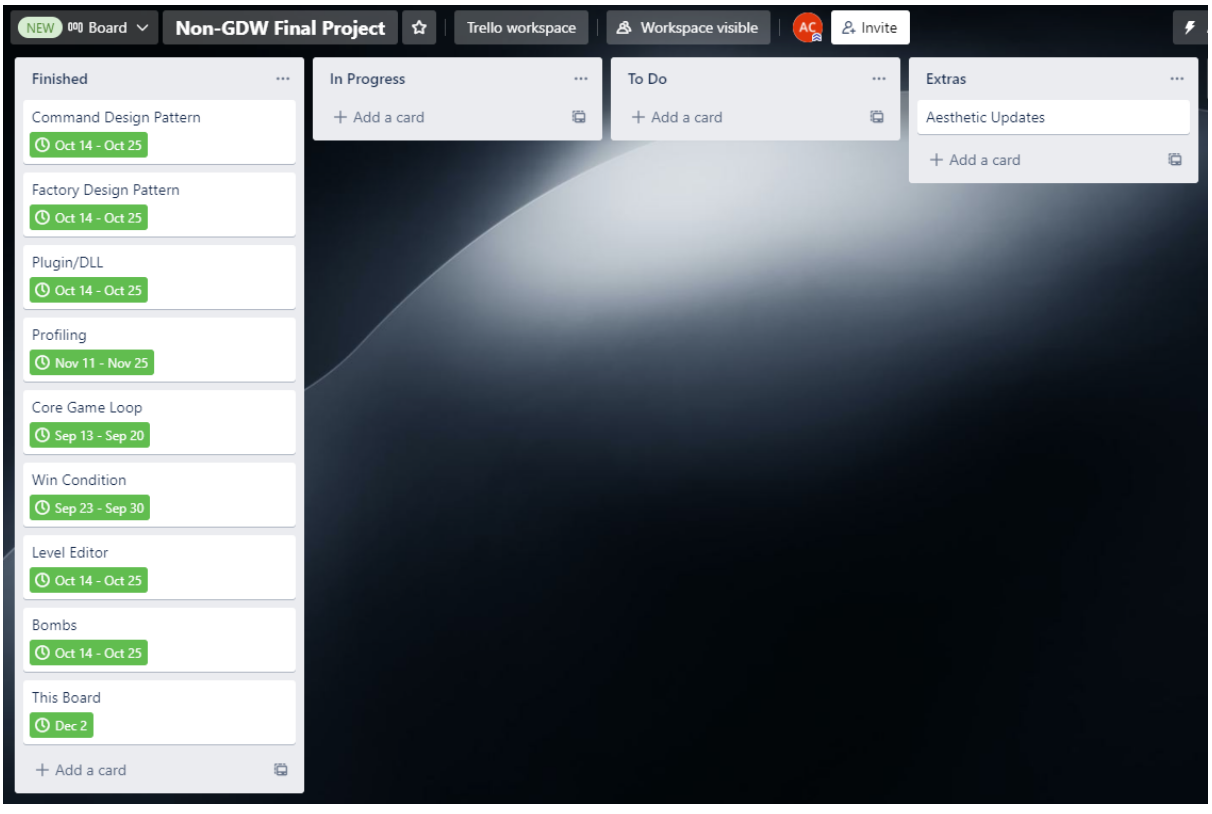
DLL

The DLL was implemented mainly as functionality for the ability to save and load levels in our game. It held functionality for the storage and use of gameobject information such as position and rotation inside of textfiles in order to perform these actions during runtime.

Aesthetics and Functional Improvements

As our game is extremely simple and with our small team of only 2 people, this was not as large a focus for us as was the functionality of the other requirements. What's it matter if our app is good but doesn't function properly? In any case, it's created with basic shapes and simple materials that were easily manipulated.

Project Evolution



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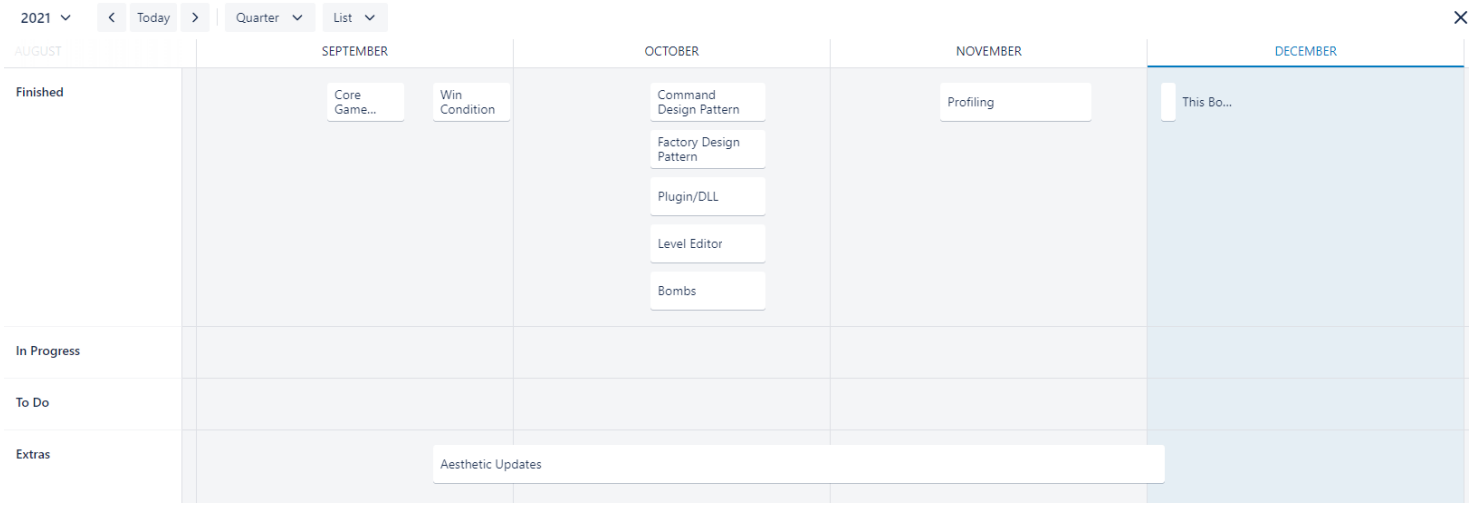
Here is our kanban board. As you can see everything was completed in time, the only thing that we maybe could have improved upon was the aesthetic but even then not by much.

We were both backend programmers as that is the entire basis of game engines but the core gameplay loop was done primarily by Arthiran as we utilized his base from assignment 1.



Here is our timeline for the board which mostly follows the assignment schedule. Please note that some things that tie into each other may not have been listed here such as: save/load functions because that was completed along with the completion of DLL's.