**B438 Network Game Status Report**

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Status Report

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The research of current literature is quite difficult. This is simply put because there are only three main reliable websites. These websites are GitHub, Wikipedia, and Love.org. Now, Wikipedia is not the most trustworthy site, but the group used it to define what LÖVE engine is, and the languages it uses to operate. However, Love.org and GitHub are extremely reputable sites and show a lot of insight into the Love engine.

Our group carefully sifted through mainly Love.org and GitHub because they presented to be the most helpful. Love.org has a lot of good notes, examples, and even discussions among other developers that explain how to properly use Love and navigate the engine as a first-time user. GitHub was proven worth because there was a plethora of code and programs from professional and non-professional game developers alike, explain what the code was, and how it worked, and how to get it to work if there was \*specified issue\* present, and how to troubleshoot and navigate around these issues.

For the implementation, our group decided to use the Love engine, which is automatically present on the Linux operating system, and even Ubuntu. Our group decided to use Ubuntu because Linux (Debian) is already used, and it is comprised of three editions: Desktop, Server, and Core. Ubuntu was loaded on virtual machines and then had the Love Engine grabbed from the Ubuntu Software Center, which is equivalent to the Windows Store for Microsoft’s Windows operating system. Then Love engine was started, and the programing began.

The group used Lua script to program the game. The game is Battleship. Battleship is a classic game where two players take turns guessing (in a grid/coordinate system) where the opponent’s ships are, and when the ship is found, it is registered as a “hit” and the battleship is “dead” when it is covered in “hits” and there are not any more “hits” on the ship.

The game communicates over UDP/IP protocols and is implement with pictures of ships with colorful hit/miss squares to enhance the gameplay experience.