

WARGAME PROGRESS REPORT

Week 7: March 19 - March 26th

Reid Coates | Client Coordination and Backend Development Lead

Jack Kelley | Organization Lead and Frontend Development

Alexander Hassan | Testing Lead and Frontend Development

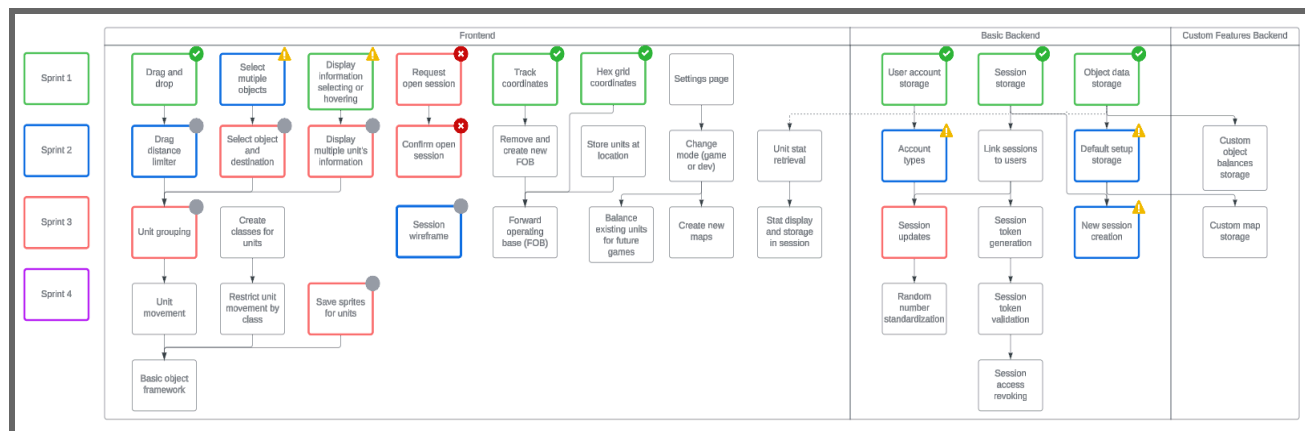
Luke Muilenburg | Frontend Development Lead

Group 23 | sddec24-23 | EE/CPRE/SE 491

Client: Reid Coates (AFROTC and Major Stephanie Jones)

Advisor: Ahmed Shakil

WEEKLY PROGRESSION



Started implementation of updated highlighting feature - **Alex Hassan**

- Starting working off of the main branch on the implementation of the user's ability to keep the highlight stationary once the user drags and moves their sprites. This ability will help the user interface be more helpful to the user, since they will be able to know from where the user is dragging a sprite.

Reworked Project Plan and Developed Milestones - **Jack Kelley**

- After a few weeks of developing proofs of concept for some of the core components of our project (the hexagonal game grid, drag and drop asset movement, mouse hover pop-up windows to display information, etc.), we reached a point where we didn't have much direction for moving forward. With this, we realized we were to the point where we had the parts needed to begin assembling them and developing the framework for the Wargaming Simulator. With this, I developed some milestones for completing the project, which are listed below. With these milestones, we have now decided to work on getting user-to-user communication setup so users can send and receive game moves making use of our backend (a first round-trip communication between the frontend and backend systems).

- User-to-User Communication

- Core Game Functionality (Movement, Turns, Combat, Win Conditions)
- Game Assets (Art, Effects, Purchasing, Points)
- Web-Based Application Deployment
- Play Testing (with Cadets)
- User Privileges (Asset Modification, Discretionary Points)
- Custom Map Creation

Database Change and Install - **Reid Coates**

- Researched solution to changing the temporary database to an SQL driven design. Found MariaDB to be a better option than MsSQL Azure after some testing. Will be completing setup and connecting database to Java app. The current VM has MariaDB now installed and configured. Outside connection will be necessary for visibility.

HTTP Controller Functions - **Reid Coates**

- Added controller handlers for resetting databases, dumping all contents of databases, and saving/searching databases. This was all done for the temp CSV files and will have to be redone with the switch to MariaDB.

Merging Frontend and Designing asset equipment system- **Luke Muilenburg**

- Merged existing frontend code to the main branch and fixed a couple of camera bugs that resulted. I am also in the process of making screen sketches for the asset equipment menu. This is an important first step of finishing up the combat system; a core feature for us.

PENDING ISSUES

Gameboard Scaling

- Our original intent was to provide the ability to scale the size of the game board grid to better fit whatever map the user may choose to upload, but the capabilities of GameMaker Studio have made developing a hexagonal grid more complicated than we originally thought. We need to decide how we want to go about implementing the scaling or if we want to scrap the idea altogether.
- Note: This has been here for multiple weeks at this point because it is an important design choice that needs to be made eventually, but isn't an issue that we can confidently resolve at this time.

INDIVIDUAL CONTRIBUTIONS

| Team Member | Contribution | Weekly Hours | Total Hours |
|------------------|---|--------------|-------------|
| Alexander Hassan | Started working on the user's ability to stop highlighting more tiles once dragging a sprite. | 2 | 32 |
| Jack Kelley | Revised project plan, developed milestones for moving forward with the development of the Wargaming Simulator, and developed plan for implementing user-to-user communication to get ground-level framework in place for the simulator. | 4 | 36 |
| Reid Coates | Researching and installing a new SQL database to replace CSV temp storage. Creation of CSV storage HTTP handlers which will all be converted. | 10 | 46 |
| Luke Muilenburg | I merged my code, including camera controls, to main. I am also in progress on figuring out how to do the asset equipment management system. I will add photos of this as I have more work to share. | 3 | 30 |

NEXT WEEK

| Task | Members | Completion Date |
|---|---------|-----------------|
| Finish Implementing the user's ability to select multiple assets, highlight updates, and drag distance-limiting for the user. | Alex | 4/2 |
| Implement frontend communication to a mock server to eventually connect with the backend for sending user game asset movements and updating game board. | Jack | 4/2 |
| Learn about remote connections to a Raspberry Pi and running MariaDB to host the backend. | Jack | 4/2 |
| Bug fix asynchronous web traffic proof of concept. | Reid | 4/2 |
| Connect SQL to Java app via JDBC and transfer current controller to use JDBC instead of CSV | Reid | 4/2 |
| Finish screen sketches and set up the foundation of the asset equipment manager. | Luke | 4/2 |
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