

# WARGAME PROGRESS REPORT

Week 8: April 10th - April 16th

***Reid Coates*** | Client Coordination and Backend Development Lead

***Jack Kelley*** | Organization Lead and Frontend Development

***Alexander Hassan*** | Testing Lead and Frontend Development

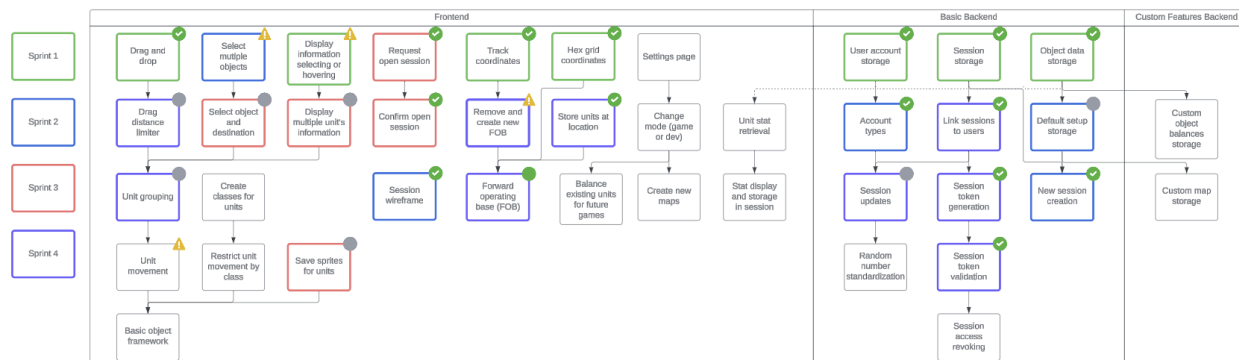
***Luke Muilenburg*** | Frontend Development Lead

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

Client: Reid Coates (AFROTC and Major Stephanie Jones)

Advisor: Ahmed Shakil

# WEEKLY PROGRESSION



## Frontend-to-backend game asset communication - **Jack Kelley**

- Using Alex's framework for HTTP requests from GameMaker, we can now retrieve the data for a game from the backend, and use the asset list to draw sprites at the specified location, of the specified type.
- Using the same framework, can now also send the data for a game to the backend, updating the asset list with the new coordinate locations of sprites after moves have been made on the frontend.
- With this, we now have a roundtrip between the frontend and backend in the game room, meaning we can begin implementing damage calculations and battle logic

## Drag-distance limiting - **Alex Hassan**

- Implemented the user's ability to select multiple assets, highlight updates, and drag distance-limiting for the user, according to the rulebook. The logic for this is strictly on the frontend system, which will not allow the user to drag an asset sprite outside of its range.

### Finish Project Website v1- **Luke Muilenburg**

- All sections of the website for our project have been completed. While we will make updates to it as required, it has been completed to satisfy all requirements.

### Continue Work on Equipment System- **Luke Muilenburg**

- I have continued to work on the equipment system on a separate branch. I have made it so that all armaments are now treated as objects to take advantage of the object type's special capabilities in GM studio 2. I have also worked on a room overlay for the available equipment for each player.

### Join code, game adding, and player country allocation - **Reid Coates**

- When a new game is created, a joinCode is generated (unique 8 digit code) and the game is added to the creating user's account. When the join code is used by a different player, the game is added to that user's account as well. The turn flag is then set to allow either player to update a move in the database and start the game logic loop. The joinCode is then removed from the game file and replaced with a -1 signaling the file to be unjoinable since it already contains both player one and two.

### Delete game from all - **Reid Coates**

- This feature allows a user that owns a game to delete the game. Since this is a two player game, removing a player in an already created game renders the game unplayable. It is deleted from both user's accounts when either user deletes it. The game is also removed from all database tables associated.

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# 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.

## Should we implement sending HTTPS requests as opposed to HTTP requests?

- In the final product delivery, it may become necessary to encrypt all network communications with HTTPS requests. However, this may require significant rework and may not entirely be possible with Game Maker.
- Note: This change should not affect how the game communicates with the backend and will be a consideration that we will discuss and decide on finalization of the backend logic and frontend graphics.

# INDIVIDUAL CONTRIBUTIONS

Team Member	Contribution	Weekly Hours	Total Hours
Alexander Hassan	Implemented the user's ability to select multiple assets, highlight updates, and drag distance-limiting for the user, according to the rulebook.	7	57
Jack Kelley	Connected frontend and backend to send and receive sprite coordinates to manage game pieces. Sends location of sprite to backend, redraws sprite at location received from the backend	10	61
Reid Coates	Creating default game creation. Created a join game feature and added new games to accounts as well as auto assigning players on join.	7	73
Luke Muilenburg		8	48

# NEXT WEEK

Task	Members	Completion Date
Rework tile highlighting functions in order to show ranges for each asset via one dynamic function.	Alex	4/23
Default game creation database initialization and drop/re-add feature for app startup.	Reid	4/23
Game logic for first dogfight between J10 and F16 on the frontend.	Reid	4/23
Return standard board state when new game request is made		
Take existing equipment structure and apply it to a GUI menu.	Luke	4/16
Implement user-to-game connections	Jack	4/23
Send combat data to backend for damage calculations	Jack	4/23