

WARGAME PROGRESS REPORT

Week 2: February 7th - February 13th

Reid Coates | Client Coordination and Backend Development Lead

Jack Kelley | Organization Lead and Frontend Development

Alexander Hassan | Testing Lead and Frontend Development

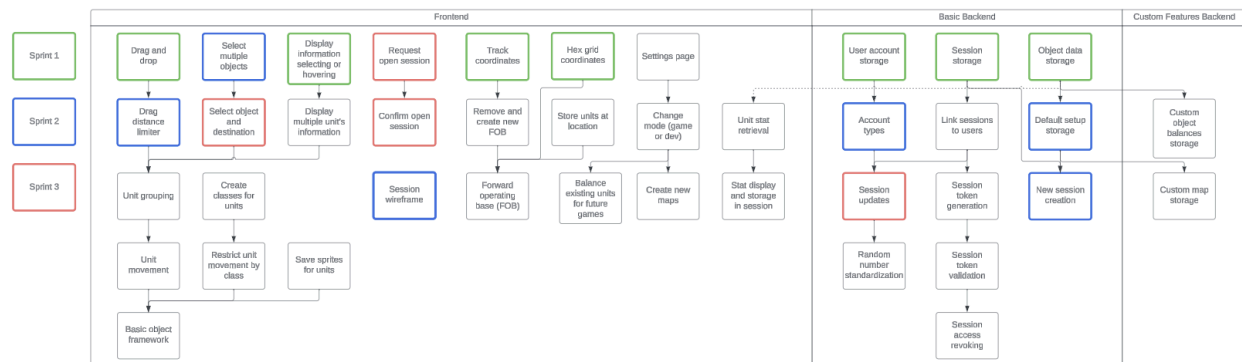
Luke Muilenburg | Frontend Development Lead

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

Client: Reid Coates (AFROTC and Major Stephanie Jones)

Advisor: Ahmed Shakil

WEEKLY PROGRESSION



Data Storage, HTTP Controller, and JSON Object Send and Receive Proof of Concept - Reid Coates

- HTTP controller simple proof of concept using springboot on a Java application.
- Data storage class that is integrated to the springboot backend application and can be replaced if there is a better solution than a CSV file for each backend function which needs storage.
- Gamemaker studio proof of concept for creating JSON objects from key value data types in Gamemaker. Also the extraction of key value from JSON on the frontend.

Requirement Documentation - Reid Coates

- Created CyBox with all Official design documents for the tabletop Wargame along with assets and rule books. This includes the Air Force objectives excerpts from the training documents that standardize how they are accomplished in the larger Force. Added the advisor to the CyBox.

Hexagonal Grid Demo - **Jack Kelley**

- Created a hexagonal grid in GameMaker Studio, as well as implemented the logic to track left clicks within the game screen and convert the coordinates of the click to a tile location on the grid. Using this logic, tile highlighting was also implemented, with the ability to use a key press to signify a certain type of tile (Land, Key Island, PLA Occupied Island, Forward Operating Base, Start, or erase function), allowing the user to draw custom maps.

Click and Drag ability - **Alexander Hassan**

- Similar to Jack's work, implemented a less complex hexagonal grid system which highlights the current hex the mouse hovers over. In addition, the user is able to click and drag a sprite to each of the cells in the map, and the sprite being dragged will be drawn centered on a cell once the user's mouse crosses over into that cell. This allows the user to move units around.

Pop Up Element Demo- **Luke Muilenburg**

- Researched and implemented an isolated demo which allows a user to click on a game element which then displays a pop up dialogue box in the same window. This will be used to display the stats of the various units and their armaments in the wargame in the future.
- Additionally, I got my local repo and remote gitlab repos with ssh key set up this past week.

PENDING ISSUES

Game board 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.

INDIVIDUAL CONTRIBUTIONS

Team Member	Contribution	Weekly Hours	Total Hours
Alexander Hassan	Implemented a proof of concept for dragging and dropping a sprite around a hex board, with the sprite being dragged around staying centered on its current hex position. Submitted a request to set up our Project's VM: sddec24-23.ece.iastate.edu	10	13
Jack Kelley	Created a demo for the hexagonal grid game board, implemented logic for tracking screen clicks and converting that to a hex tile, added ability to draw a sprite indicating a tile is highlighted, added ability to change highlight color to signify different types of tiles, developed some grid and highlight assets	10	14
Reid Coates	Generated proof of concepts for HTTP, java backend, and storage in CSV. Also uploaded and gathered all pre-generated assets and rules.	7	13

Luke Muilenburg	Set up gitlab and local repos. Developed pop-up proof of concept; an important function for the user interface. Also researched how to connect Game Maker frontend to Java backend using IntelliJ.	8	12
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NEXT WEEK

Task	Members	Completion Date
Start work on developing art assets for unit tokens in Procreate app	Luke	2/22/2024
Increase functionality of pop ups by displaying text and variable returns in the dialogue box instead of a blank box as is its current function.	Luke	2/22/2024
<p>Begin wireframing to consult the client about game layout</p> <ul style="list-style-type: none"> - Once the wireframing is in place and what our client wants, we can begin combining the individual project components we have been developing such as the game board, card pop-ups, etc., as we know where those things should be placed. 	Luke Jack Alexander	2/22/2024
<p>Set up GitLab environment</p> <ul style="list-style-type: none"> - Login at https://git.ece.iastate.edu/sd/sddec24-23 - Set up SSH Keys at https://git.ece.iastate.edu/help/user/ssh - set username and email with: git config --global user.email <email> git config --global user.name <netid> - Test sign-in with <code>ssh -T git@git.ece.iastate.edu</code> - Clone repository with: 	Luke Jack Reid Alexander	2/22/2024

git clone git@git.ece.iastate.edu:sd/sddec24-23.git		
Set up CI/CD pipeline for Java backend app <ul style="list-style-type: none">- YML script creation- Branch creation for Backend	Reid	2/22/2024
Add users to VM <ul style="list-style-type: none">- Create ability to have multiple people SSH'ed in to the VM and editing at the same time- Learn how to manage multiple users in Ubuntu	Reid	2/22/2024
Write documentation for Proof of concepts (HTTP, Java backend, and storage interface). <ul style="list-style-type: none">- Upload one page documents to CyBox and Drive	Reid	2/22/2024