

## Project Milestone 5

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*CSCI 3308: Software Development & Tools*

*Team 113-5: History Through Battleship*

### Team Members

- Salvatore Pacifico
- David Crockett
- Matthew Ruiz Diaz
- Andres Montealegre
- Kai Schuyler Gonzalez

### Individual Contributions

#### **Andres:** [Latest commit](#)

- Responsive Design Battleship
- Battleship Button Grid
- Button Disable Feature (Post-Correct Answer)
- NavBar Responsive Implementation
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#### **Sal:** [Latest commit](#)

- Main Menu HTML/CSS
- About Us CSS
- Login/Register CSS
- Connected HTML Pages
- Database Diagram
- Settings HTML/CSS
- Side Nav Design
- Ship Placement Functionality
- Start Game Validation
- AI implementation for single player
- Single player hit/miss css

#### **Kai:** [Latest commit](#)

- Made the CSS responsive and merged our CSS files to create a standard CSS file to use in all pages of the site
- Installed Postgres on the Heroku app
- Created Node.js app
- Login screen HTML
- Changed the heroku app from static to an Express app using ejs
- Implemented a login system using nodejs and passport js that stores user information in Postgres

#### **Matthew:** [Latest commit](#)

- trivia popup css
- modal id design
- wireframes for main menu, settings, and login

#### **David:** [Latest commit](#)

- Architecture Diagram
- Front End Design
- About Us HTML
- Test Plan

## Test Plans:

1. After analyzing the product, the three main features that will require testing will be:
  - a. Multiplayer gameplay
  - b. Single player gameplay
  - c. Login/register database interaction
2. The testing strategy will involve the following for each of the listed features:
  - a. Multiplayer gameplay:
    - i. Check that placing each ship in a valid place tracks that ship being in the placement for the entire game, and that placing a ship in an invalid place will result in an error message.
    - ii. Check how answering Trivia questions correctly and incorrectly effects the game board.
    - iii. Check how hits and misses are registered on the game board.
    - iv. Ensure the turn change intermission occurs between player one and two's turns.
    - v. Check to make sure that the game ends properly.
  - b. Single player gameplay:
    - i. Check that placing each ship in a valid place tracks that ship being in the placement for the entire game, and that placing a ship in an invalid place will result in an error message.
    - ii. Check that the AI ship placement is random and that no invalid placements are made.
    - iii. Check how answering Trivia questions correctly and incorrectly effects the game board for both the human player and the AI.
    - iv. Check how hits and misses are registered on the game board for both the human player and the AI.
    - v. Check to see that the AI's gameplay is conducted correctly and competitively.
    - vi. Check to make sure that the game ends properly.
  - c. Login/register database
    - i. Check that the register page successfully registers users.
    - ii. Check that the sign in page successfully signs users in.
    - iii. Check that the database keeps track of win/loss records and trivia question records.
3. The testing objectives based on the above strategies are to ensure that any bugs or errors that may exist in the game are revealed so that the game can be corrected and presented properly to the game's audience.
4. The testing criteria based on the strategies and objectives are as follows for each of the listed features:
  - a. Multiplayer gameplay:
    - i. Ship placement is functioning properly for each player
    - ii. Trivia questions being answered correctly will result in a fired shot, and that Trivia questions being answered incorrectly will result in no shot being fired.
    - iii. A shot fired at a square where the enemy ship successfully causes a hit and that a shot fired at a square where there is no enemy ship successfully causes a miss.
    - iv. The turn change intermission does not reveal enemy ship locations.
    - v. When one player destroys all enemy ships, the proper player is declared the winner and the game is terminated.
  - b. Single player gameplay:

- i. Ship placement is functioning properly for human player and the AI.
  - ii. Trivia questions being answered correctly will result in a fired shot, and that Trivia questions being answered incorrectly will result in no shot being fired for both the human player and the AI.
  - iii. A shot fired at a square where the enemy ship successfully causes a hit and that a shot fired at a square where there is no enemy ship successfully causes a miss for both the human player and the AI.
  - iv. The AI will continue to fire shots in close vicinity of a previous hit until the ship is destroyed and will fire random shots otherwise.
  - v. When one player destroys all enemy ships, the proper player is declared the winner and the game is terminated.
- c. Login/register database:
- i. Database stores username and password successfully
  - ii. When registering, a username that has been used by another player cannot be used again.
  - iii. When registering, a password must meet the given criteria to register the username.
  - iv. While playing, the username's database is updated to hold that user's win/loss and trivia records.
  - v. While signing in, a username that does not exist in the database will result in an error message.
  - vi. While signing in, a password that is incorrect will result in an error Message.

5. Resources for any bugs or errors with the game operations as previously stated will be our professors and instruction team.

6. The testing environment will consist of each of the project group members on their respective devices to ensure that functionality is consistent across different platforms.

7. The scheduled testing of the project will occur from the 11/14/20 to 12/1/20. These three weeks of testing should uncover any bugs or errors that may exist in the game as well as give the group time to fix any bugs or errors that arise.

8. The test deliverables will be each of the three features functioning properly based on the criteria laid out in step 4. Combined, these features and the rest of the project will produce a functioning web application.

**Sprint Progress:**

Sprint 5,Login Database/Heroku

11/15-11/28 | Implementing the database for login information and stats | First week will be coding and planning, second week will be testing and implementing

KG

AA

DC

MD

SP

Only My Issues

Recently Updated

TO DO	IN PROGRESS	DONE
<div><p>As a set of users playing locally, I want a screen between moves that will hide what my opponents screen will look like.</p><div>Gameplay</div><div><div></div><div></div><div>3</div></div><div>H15-13</div><div>AA</div></div>	<div><p>As a user, I want to be able to start a local multiplayer game within the app so that users have the option to play with a friend.</p><div>Gameplay</div><div><div></div><div></div><div>3</div></div><div>H15-5</div><div>DC</div></div>	<div><p>As a user, I want a login system that will allow the game to keep track of my stats</p><div>Database</div><div><div></div><div></div><div>8</div></div><div>H15-11</div><div>SP</div></div>
<div><p>As a user, I want sounds to play when there is a hit/miss and for right/wrong answers.</p><div>Gameplay</div><div><div></div><div></div><div>1</div></div><div>H15-17</div><div>MD</div></div>	<div><p>As a user, I want to be able to play a single player game against a computer so that the users have the option to play alone.</p><div>Gameplay</div><div><div></div><div></div><div>5</div></div><div>H15-4</div><div>MD</div></div>	<div><p>Connecting to Heroku and launching tests.</p><div>Database</div><div><div></div><div></div><div>5</div></div><div>H15-28</div><div>DC</div></div>
<div><p>As a user, I want to be able to defend myself from an AI attack by correctly answering a trivia question.</p><div>Gameplay</div><div><div></div><div></div><div>3</div></div><div>H15-27</div><div>KG</div></div>	<div><p>As a user, I want to be able to look through my win/loss stats.</p><div>Interface</div><div><div></div><div></div><div>1</div></div><div>H15-26</div><div>KG</div></div>	
	<div><p>Implementing many of the same features that are in the local multiplayer, but concentrated on AI</p><div>Gameplay</div><div><div></div><div></div><div>5</div></div><div>H15-29</div><div>DC</div></div>	