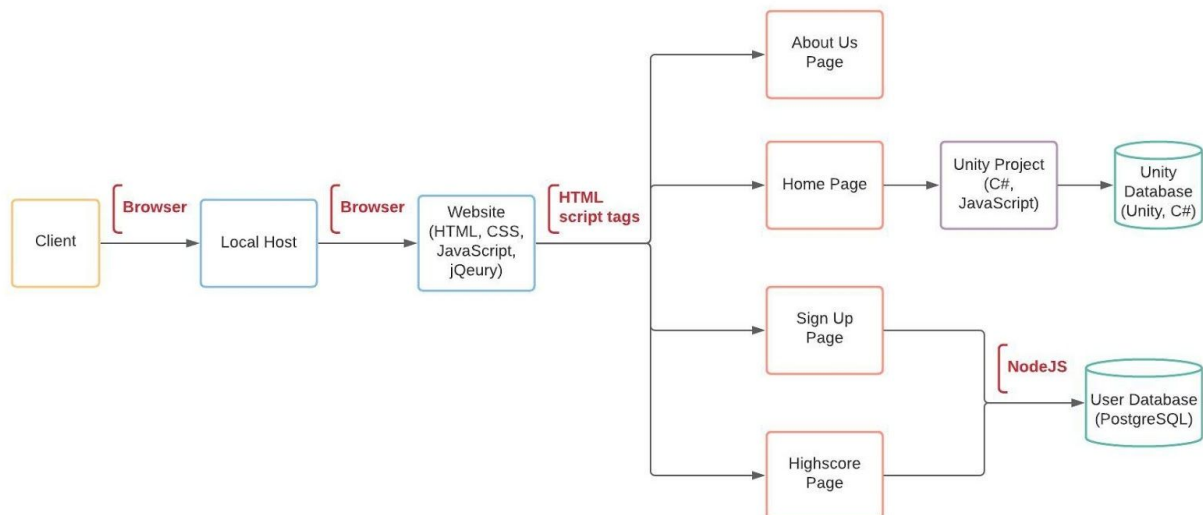


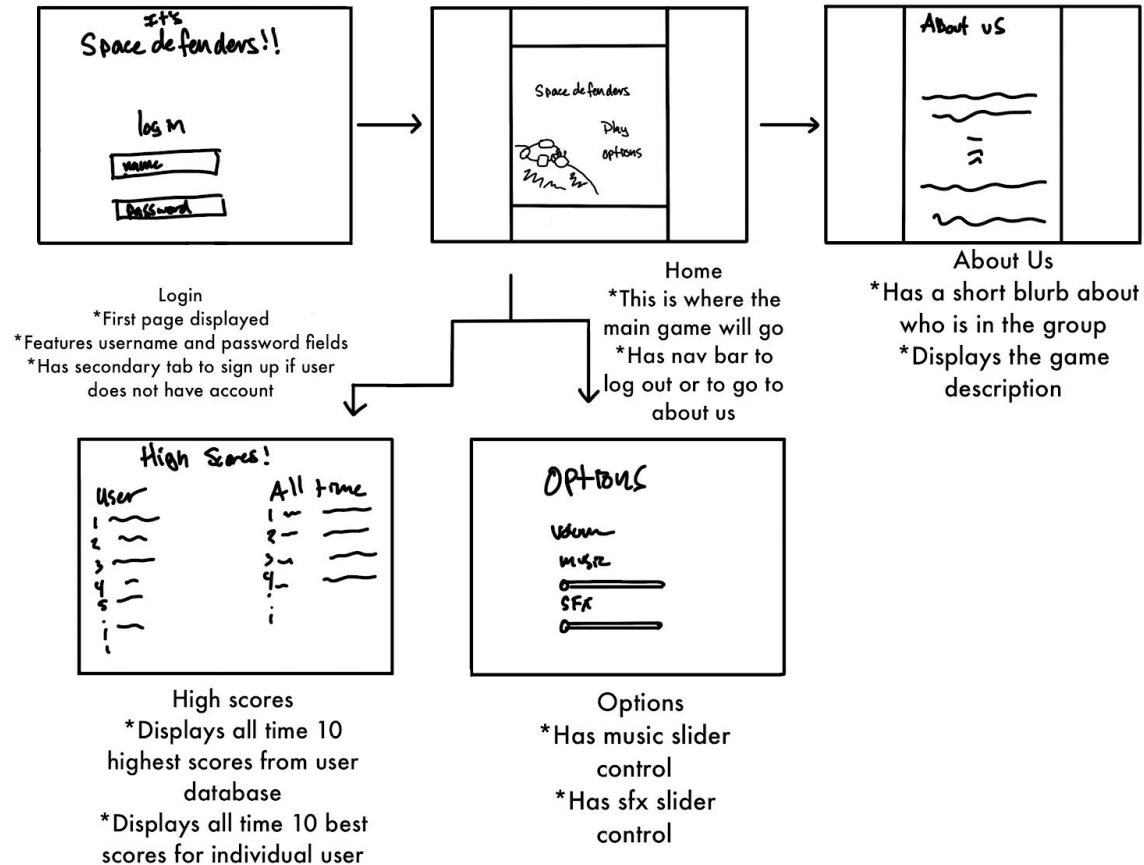
## Feature list:

- Registration Page
  - A page consisting of two forms, one for username and one for password. There is also a submit button. This feature will allow for user authentication. This will allow for creation of new accounts as well.
- Main Menu
  - A screen featuring buttons linking to high scores, options, settings, new game. Will be themed to space
  - Added button click sound effect
- Tower Defense
  - The display of the main gameplay where the user can interact with the game by placing/upgrading towers etc.
  - Implemented enemy movement
- High Score page
  - This page will display the top ten all time scores from users in the database as well as the 5 top scores from the individual user.
- Setting Menu
  - Menu encompassing various adjustable game settings.
  - Added Additional Slider for SFX
  - Volume Slider Connected to Sound
  - Added button click sound effect
- HUD
  - Heads-up display showing in game statistics and mechanics. Will show money, health, buy menu, wave indicator, menu button, speed adjuster.

## Architecture Diagram:



## Front End Design:



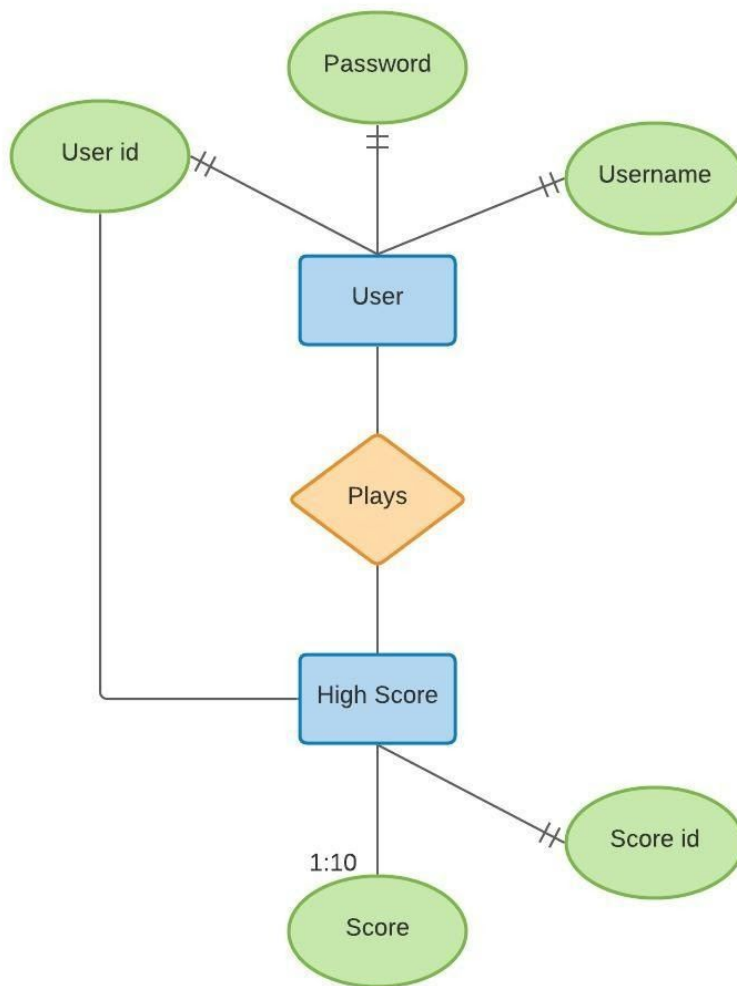
**Web Service Design:** We are not using any APIs.

## Database Design:

PostgreSQL:

- User info table
  - User id: Primary key
  - Username: Unique username which a user uses to log into their account
  - Password: Password which said user uses to log into their account
- High score table
  - Score id: Primary key
  - User id: Foreign key
  - Score: Score by user referenced by User id. Only top 10 scores of each user will be stored. Future scores that crack a user's top ten will overwrite previous scores.

### Entity Relationship Diagram:

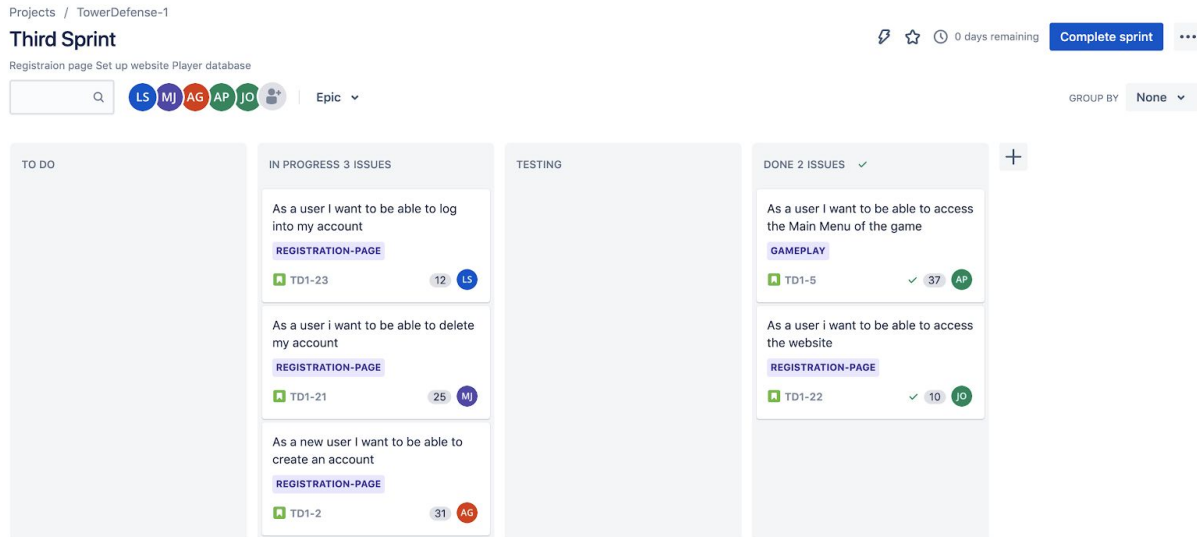


### Individual Contributions:

- Josh: Added the enemy movement waypoints, got help from the rest of the group to figure out the code, I also added the sound effects, added the sliders and connected the background music and SFX to the sliders so the volume is adjustable.
  - Latest Commit:  
[https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_section014\\_1/commit/2587f55a39331280d56db177e22cf5c1f74f417c](https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1/commit/2587f55a39331280d56db177e22cf5c1f74f417c)
- Michael: Helped troubleshoot issues with Unity code. Gave input in regards to quality of soundtrack. Helped to create a consensus on formatting and content of milestone diagrams. Helped to finalize design of assets such as the battlefield drawing. Helped to create and write this milestone document.
  - Latest Github Commit:  
[https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_section014\\_1/commit/061ae2bd982041a230d673afe7676de9f3075c2f](https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1/commit/061ae2bd982041a230d673afe7676de9f3075c2f)

- Adam: Composed original score for game soundtrack. Hand drew battlefield and several sprites for game assets. Provided Josh with C# code so enemy could follow path. Updated background for battlefield. Adjusted battlefield according to input from team. Assisted Josh in implementing sliders in option menu. Updated dprint in JIRA
  - Latest Github Commit: [https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_section014\\_1/commit/6b05b5c14ea0f04d36be78ccf4ed5b6cf43d600e](https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1/commit/6b05b5c14ea0f04d36be78ccf4ed5b6cf43d600e)
- Luke: Tweaked styling on registration page and about page. Helped troubleshoot issues in Unity with menu buttons not functioning properly.
  - Latest Github Commit: [https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_section014\\_1/commit/131dc7277769f367e109820e03a22d0f83b3ac5d](https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1/commit/131dc7277769f367e109820e03a22d0f83b3ac5d)
- Alice: Played a primary role in figuring out why the buttons weren't responding once SFX were added in Unity. Helped group trouble shoot a couple other Unity issues. Gave input on background sound and background images. Designed the final Application Architecture Diagram and designed Entity Relationship Diagram.
  - Latest Github Commit: [https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_section014\\_1/commit/308629c8be251617e77e0a5b03f058f2aa13e827](https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1/commit/308629c8be251617e77e0a5b03f058f2aa13e827)

Our JIRA board:



### Challenges:

- A challenge we faced was connecting all of the elements to the code properly, for example, connecting the volume sliders to the background sound was a challenge, as well as getting the enemy to follow the path mapped out.
- A project risk at this point is the scope of the game that we are working on. If our vision turns out to be too difficult we will have to scale back features and complexity in order to complete the game.

- A challenge that we will face in the near future is the connection between Unity and the webpage. If connecting these two systems proves to be quite difficult then we will have to minimize the amount of features that require connection such as exporting high scores.