CS 4530 Final Project: "Bomberman"

Group 703: Shreya Venkataraman, Aidan Capaldi, Sonia Popovic

Our Feature

In Covey.town, players are limited to a small selection of games from which to choose while in the server. A short playtest of Covey.town left the development group feeling that more variety is needed in the games provided therein. Though Covey.town does contain games, these games are turn-based and less engaging than a real-time game. Students who desire a different, more interactive experience than that provided by a board game are unfortunately out of luck while playing Covey.town.

To combat this issue, we decided to develop the game "Bomberman." Bomberman is a single player game that is tile-based where the player is competing against computer enemies. Here, users don't have to rely on waiting for another player in order to play a game. Instead, they are able to simply start a Bomberman game themselves and get more immersed in the NES game experience.
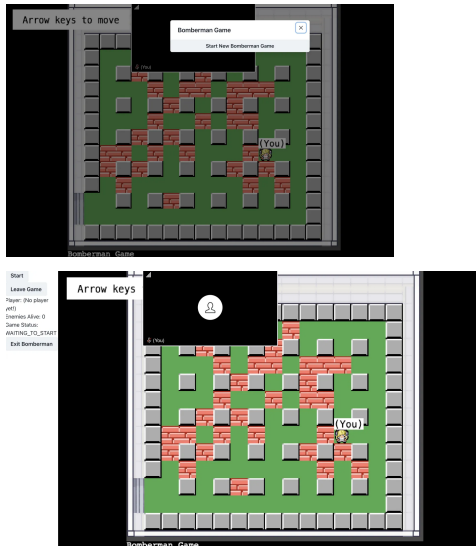
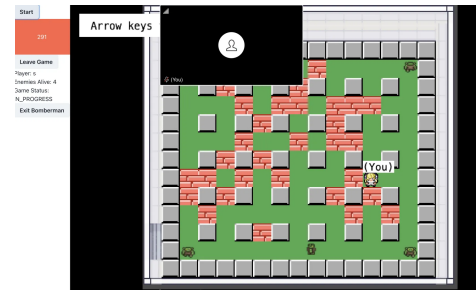## Demo and Source

Our Demo can be found at:
https://bomberman-game-service-frontend.onrender.com/

Our github for this project:
https://github.com/neu-cs4530/covey-town-project-team-703

The player can either start the game from a pop up or in the side panel as shown.

The player, once they enter the Bomberman area and press "Start" are then locked into the area and the enemies will spawn and start walking around.

Our Technology Stack and Design

We implemented the game in the existing covey.town code base and we decided to use a Model View Controller Design.

The backend was created with a Bomberman model that essentially creates a playable game without the use of a frontend. All of the logic of the Bomberman game is stored in this model.

The controller was created in order to connect the backend Bomberman model to the frontend. This is our primary communication between what the player clicks and controls in the frontend to updating what is going on in the backend.

The frontend was primarily made through phaser for the tilemap and creating the sprite animations in relation to backend components. We added a Bomberman Game Area where we used React to create join and leave buttons as well as timer and any other relevant information pertaining to the game that the player would need.

Future Work

In the future, we would like to implement power ups for a better user experience. Right now, we only have the ability for the player to only play with bombs and enemies, and it would be more enjoyable if they had the ability to obtain a wider variety of powerups.

We would also like to include a multiplayer option, so that multiple players can join a game and play against each other.