CSCI 3308 Milestone 7
Team 111-2

Jimmy's Maze

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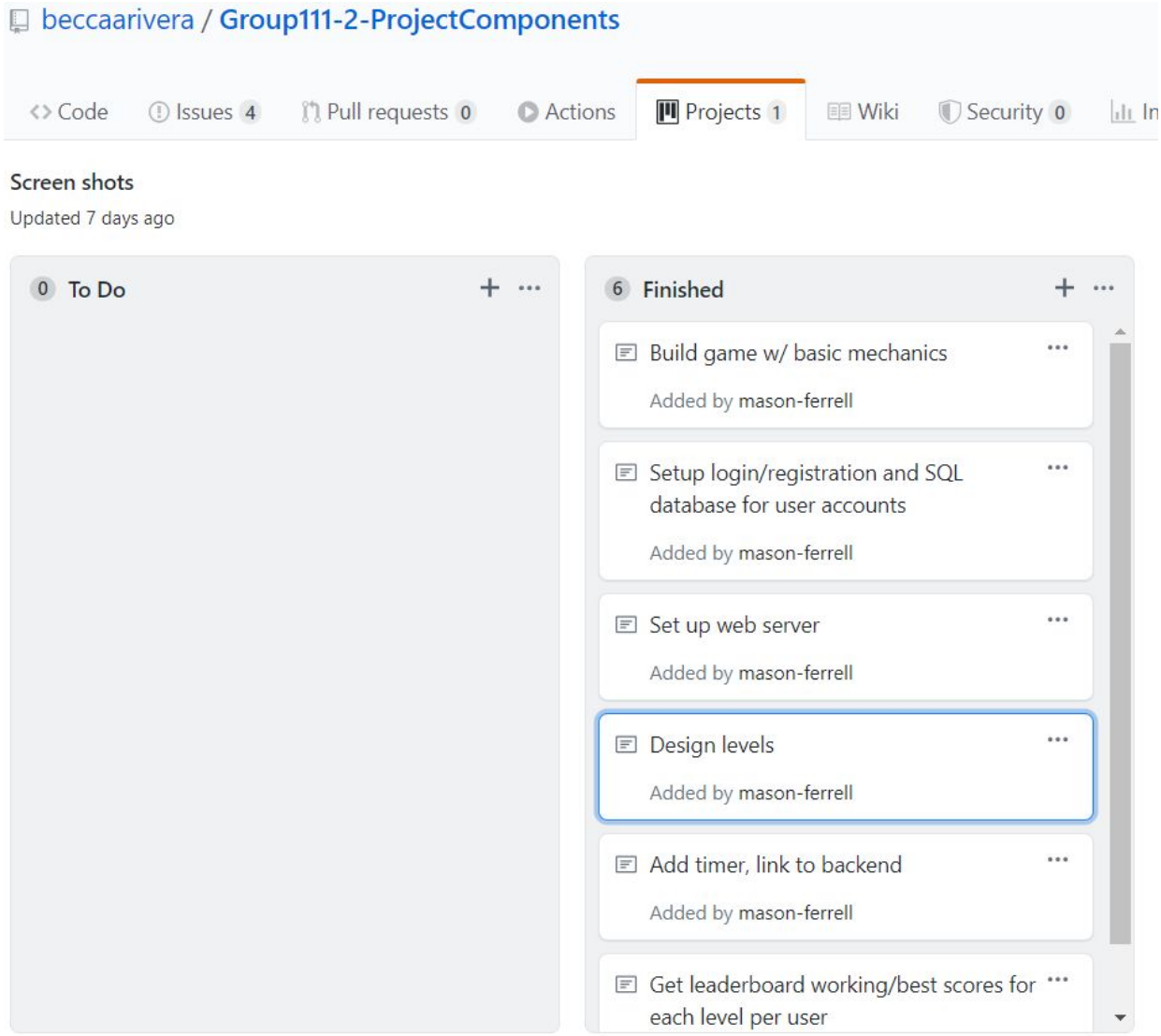
Project Description:

Our project is an online maze game called Jimmy's Maze. The game contains seven maze levels as well as a leaderboard to compare your time with your friends. Scoring is done with a timer that saves a user's score and uploads it to a database that populates the leaderboards. The game itself is made from a JavaScript library called phaser.js and the maps are made from tilemaps in a mapmaker called Tiled. The mazes were first created using a program that generates random mazes using the depth first search method. This program allowed us to input the dimensions we wanted the maze to be and then output a maze to the browser. We took those mazes and manually traced them in Tiled which output a .json file that we were able to implement into Phaser.

To use Phaser we had to run the application through a local webserver, we chose Wampserver because it is a package that contains both Apache and SQL. For the back end we created a MySQL database to hold user information and score information; we used PHP to link the front end and back end. Session variables were used to keep track of user data while logged in and passing that information through to the database using Post forms. Combining the front end and back end resulted in an online game with a functioning leaderboard and user login/registration features.

Project Tracker:

Github Projects https://github.com/beccaarivera/Group111-2-ProjectComponents/projects/1



VCS:

Github was used as the version control software for this project. The source code and README can be found in the Project Components repository and the milestone submissions can be found in the Milestone Submissions repository. Additionally, the test plan is located in Project Milestone 5.

- Project Components:
    - https://github.com/beccaarivera/Group111-2-ProjectComponents
- Milestone Submissions:
    - https://github.com/beccaarivera/Group111-2-MilestoneSubmissions

Contributions:

- **Trevor:**

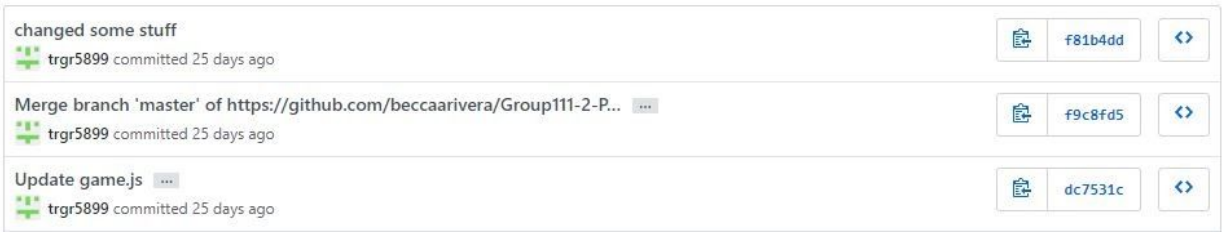
    I was responsible for working on the front end with Becca and Wesley, which included working on game mechanics, maze level design, and a little bit of php. I created the initial game.js file which is where movement of the sprite, collision detection of the sprite, and overall game physics is handled. Then Wesley showed us that Tiled would probably be the easiest way to design our maze levels, so I used Tiled to design our first maze level and was able to get it to work properly with our code. Then I passed that information onto Becca so that she could easily design the rest of our maze levels. Lastly I worked on creating the mazegame.php which linked to the game.js file and is where each maze level is hosted.

    Commits-Our team had over 100 commits so I will only put a couple of mine

This is where I committed our initial mazegame.php, game,js,maze_level1.json files which contained our first working prototype of the game. I know that I should have put a commit message but I forgot

These were just some final changes that changed the sprite's starting location and made the maze levels look a little nicer.

I made some final changes to our game.js file that made the game run smoother and committed those to the master branch

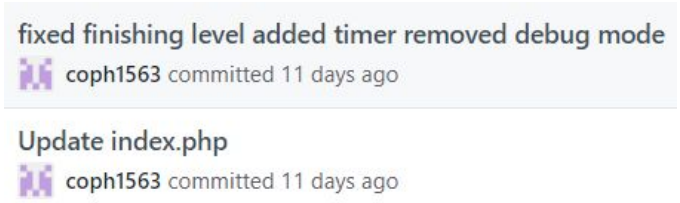


- **Cole:**

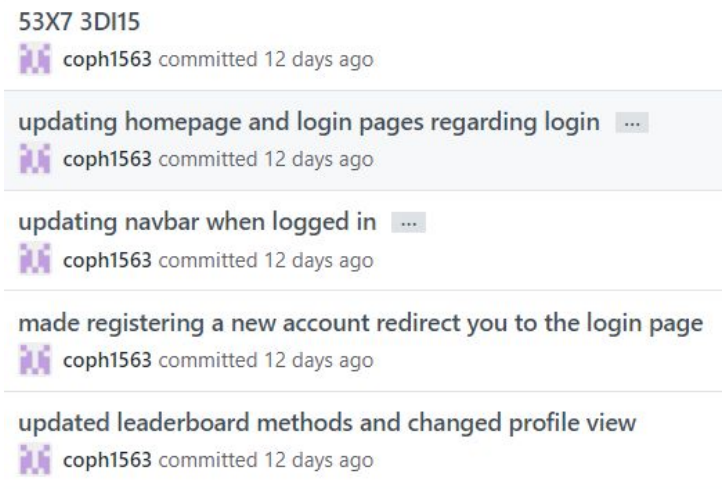
  My contributions were primarily relating to backend and database developments although I also took part front-end compatibility, file structure, and deployment. I created a PHP file to hold the navigation bar that loaded differently depending on the users logged in account status. This also linked every page of the website together, and allows us to change the navigation bar for every page through just one file. Me and Mason both worked on back-end structure and connecting it to the front end. I implemented play UUID (Unique Universal Identification) numbers whilst updating the function of the

website for logged in users. The biggest examples of this being the ability for players to progress through the levels, restricting access to higher levels players have not reached yet. The player must be logged in to view their profile page and to select game levels (cannot play until logged in). I am also solely responsible for calculating the players score (time taken) within phasers javascript functions and sending that to the database while securely displaying the user score before returning them to the level selector. Lastly, I took responsibility for deploying the website and database to https://jimmys-maze.000webhostapp.com/.

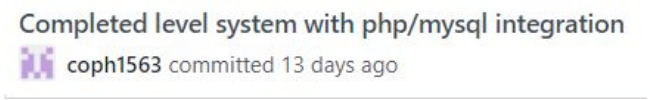
//adding ajax calls to php files when finishing game levels and updated game display option

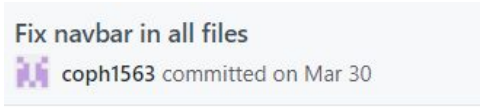


//updating stylistic attributes and updating website functionality whilst logged in and logged out

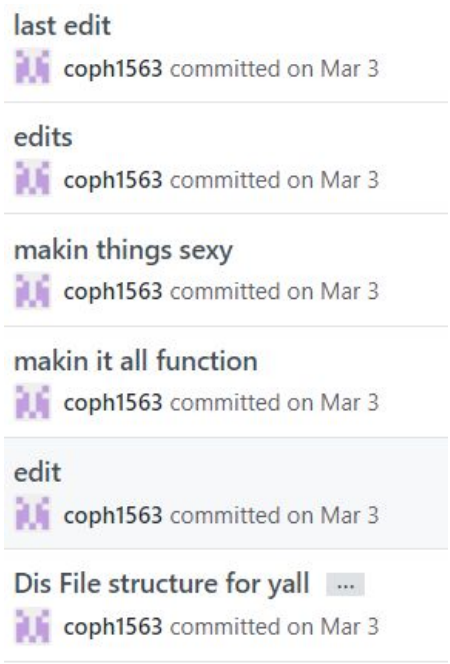


//players can see all levels but only play levels that their account allows them to





//rearranging website and making the design consistent on every page.



- **Becca:**

I contributed to the front end, namely in designing maze levels 1-6 and worked on the HTML for the user profile page. I familiarized myself with Phaser and made some small changes to the game mechanics. Designing the maze levels consisted of research into alternate methods and drawing out the actual levels once we decided on a method.

Commits shown below

updating levels 4, 5, 6 with doors
beccaarivera committed 18 days ago

changed character size
mason-ferrell committed 18 days ago

changed spike to door
beccaarivera committed 18 days ago

changed levels 1, 2, 3
beccaarivera committed 18 days ago

Merge branch 'master' of https://github.c
mason-ferrell committed 18 days ago

changed levels 1 and 2
beccaarivera committed 18 days ago

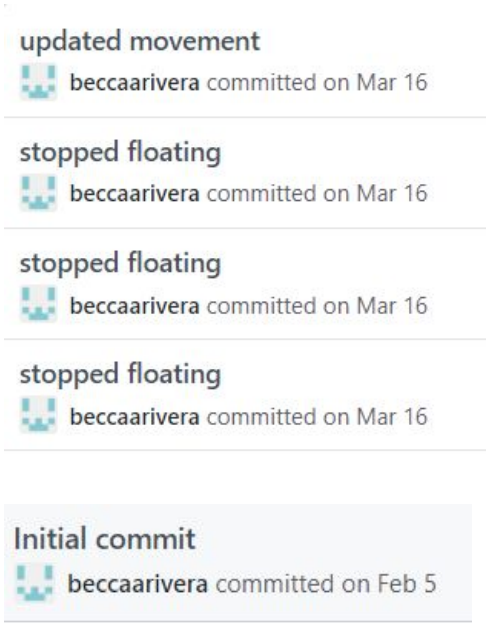
adding maze levels 1-6
beccaarivera committed 25 days ago

created another maze level
beccaarivera committed 25 days ago

created outline and styling for profile page
beccaarivera committed on Apr 1

made changes to navbar linking to home
beccaarivera committed on Mar 30

small adjustment to home page link on html pages
beccaarivera committed on Mar 30



- **Wesley:**

  I helped with the front end side of the game. I was more of an information getter and told people what was needed to run phaser and gave some helpful links on how to tackle certain problems and examples. When we also encountered the issue of being able to make the player collide with mazes I found the Tiled app and a tutorial. I also made the seventh level of the game and tried to implement a timer but Mason and Cole found a way before me.

- **Mason:**

  I worked primarily on back end; this included development of the login and registration pages and passing user scores to the database. Further, I did some work in editing the game elements to make sure they functioned optimally (resizing levels to fit screen, resizing player to fit best within each maze, setting player sprite, etc.)

Changing game screen size
mason-ferrell committed 9 days ago

New sprite working
mason-ferrell committed 12 days ago

checking leaderboard session variables if level is uninitialized
mason-ferrell committed 12 days ago

Added leaderboard
mason-ferrell committed 12 days ago

Commits on Apr 18, 2020

leaderboard working, couple small changes
mason-ferrell committed 13 days ago

resized player frame, made game.js not use cached browser data
mason-ferrell committed 23 days ago

added logout button
mason-ferrell committed 26 days ago

Fixed issue with login ...
mason-ferrell committed 26 days ago

Register and login forms now linked
mason-ferrell committed on Mar 19

Update index.html ...
mason-ferrell committed on Mar 19

login.php and register.php now working, users can create new accounts... ..
mason-ferrell committed on Mar 10

- **Mykayla**:
    - *N/A (null)*

Deployment Link: The game was deployed using 000webhostapp.com, the link is given below.

jimmys-maze.000webhostapp.com