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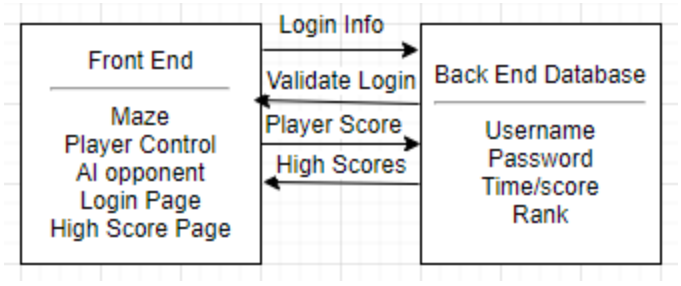
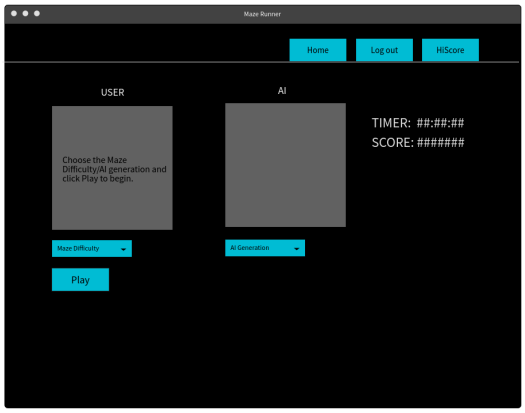
Revised List of Features:

- AI Generation
  - Allows for the computer to progressively achieve the goal of finishing the maze. Each generation will evolve from the best child of the previous generation
- User Based Interaction
  - Allows for the user to race against the AI
- Leaderboard
  - Allows for the user to keep track of their score and compare against other users
- Login Page
  - Allows for multiple user to be saved to our database, and so that they can save their scores on the database
- Different Mazes
  - Allows for a variety of mazes, to test both the user and the AI's capabilities
- Difficulty Selection
  - Allows for the user to race against a certain generation of AI, the difficulty is determined by which generation of AI is used
- A* Solution Display
  - A search algorithm that creates the shortest and best available path in the maze for the user to follow

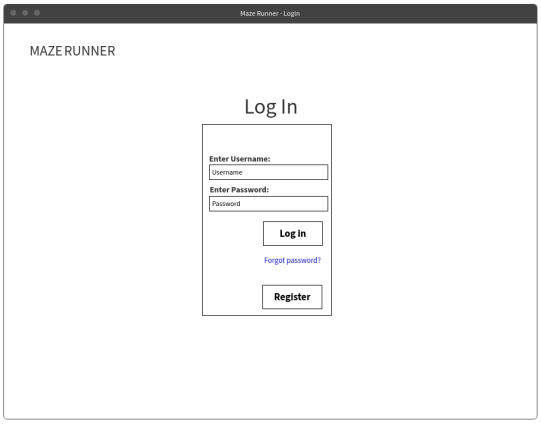
Architecture Diagram:



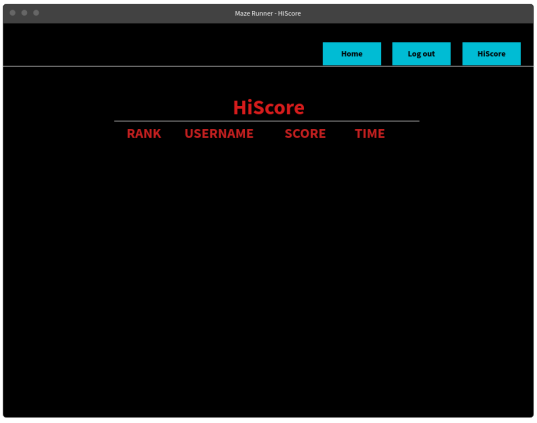
Front End Design:



This is the main page of the front end. This allows the user to select the difficulty of the AI and pick the maze that they will play. Then the user will select the play button to bring up both the player and AI's maze.



The login page allows the player to register so that their scores are saved. They can also log into their account from this page.



This is the High Score page where the scores are retrieved from the PostgreSQL database to populate the page. It displays their rank, username, and score/time.

Web Service Design:

- The project does not make use of any Web Services.

Database Design:

- DBMS technology: PostgreSQL
- Model: