

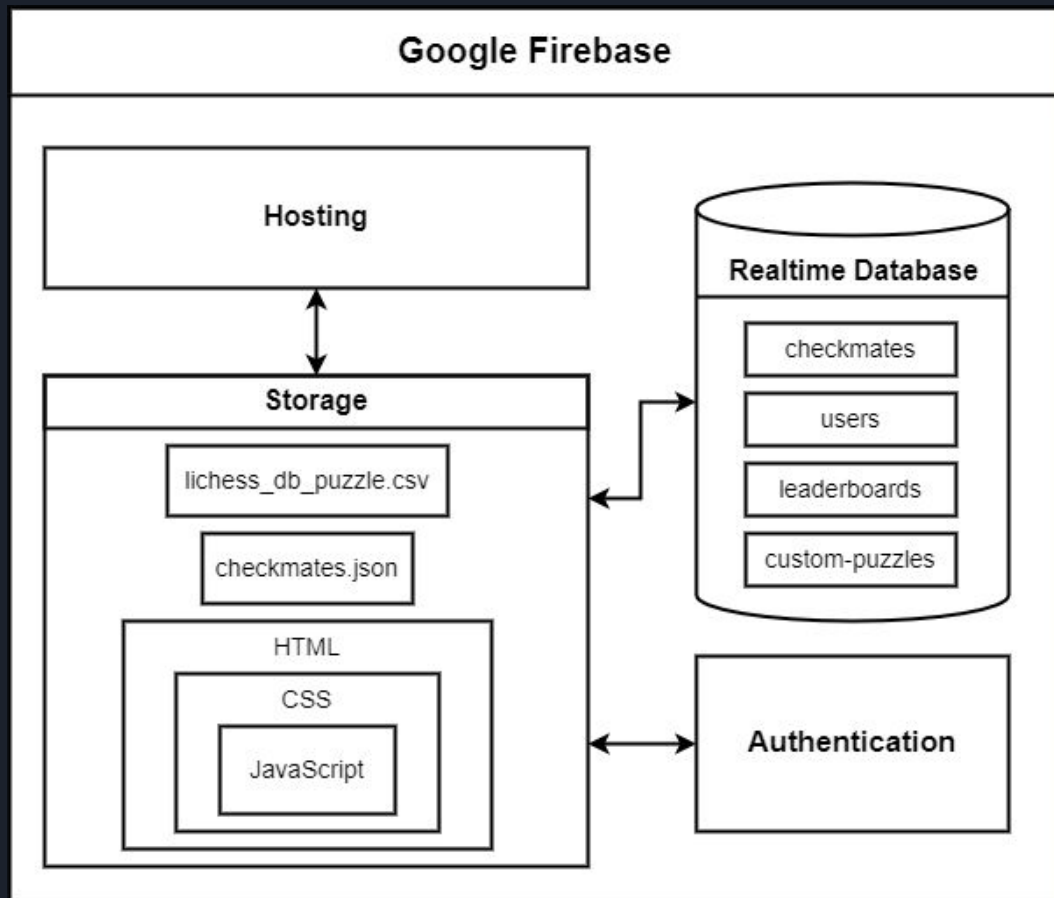
A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is light green. They are positioned diagonally, with the blue one partially covering the green one.

Checkmate

Project Design

Presented by Esai Jimenez, Autumn
Hale, & Trentin Barnhart

Block Diagram





Puzzle Example

- ▶ checkmates
- ▶ custom-puzzles
- ▶ leaderboards
- ▶ users

▼ — checkmates

▼ — 0

FEN: "6k1/5ppq/8/p2r2B1/1p6/5P2/6PP/R3R2K b - - 0 37"

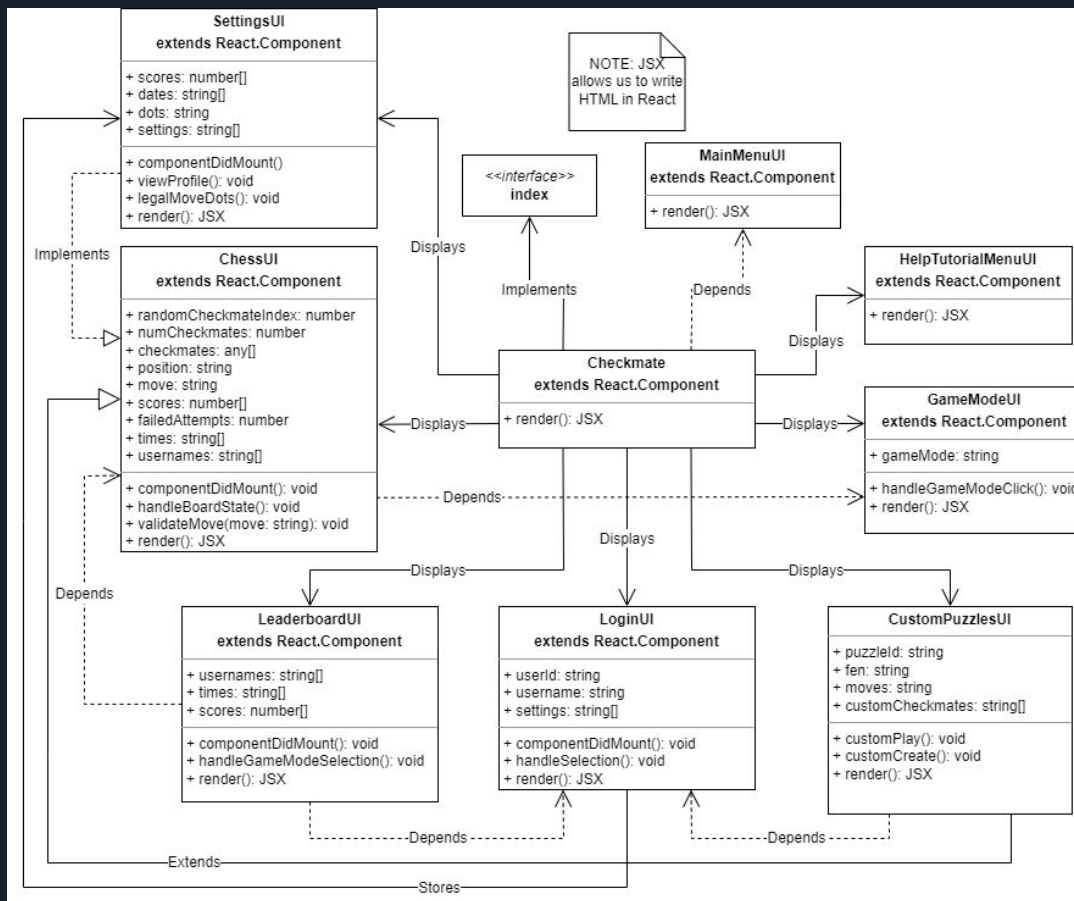
Moves: "d5-g5 e1-e8"

PuzzleId: 1

Rating: 545

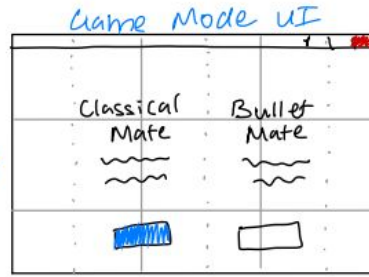
Themes: "mateIn1"

Component Diagram





User Interface Storyboard



Tabs redirect to corresponding pages



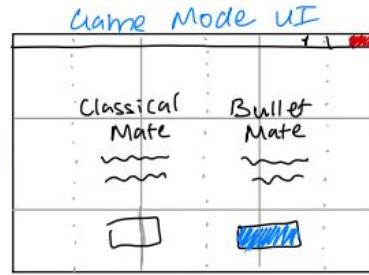
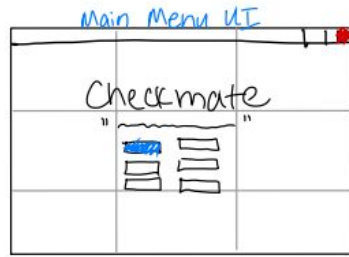
Game Mode UI button

Main Menu UI button

Main Menu UI button

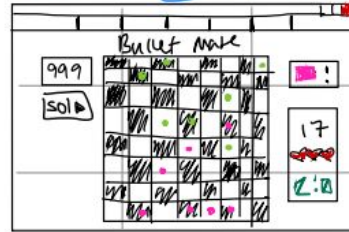
Game mode UI button

Drawings & Diagrams by:
Arshin Hale

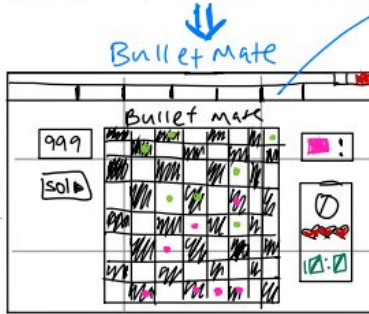


Tabs redirect to corresponding pages

Solution OR NO TOP 10



A



B

No Solution & TOP 10



Main Menu UI button

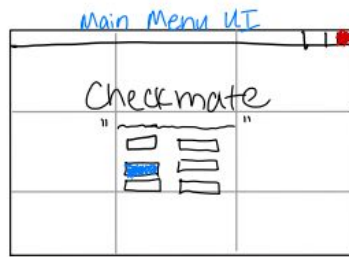
Game Mode UI Button



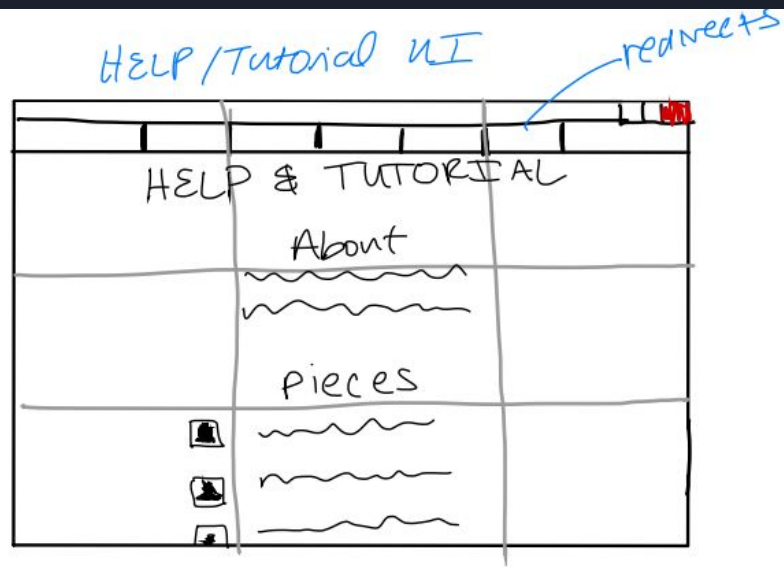
Game Mode UI button

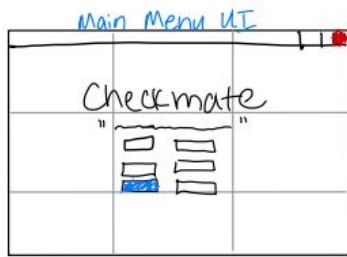
Main Menu UI button

Drawings & Diagrams by Autumn Hale

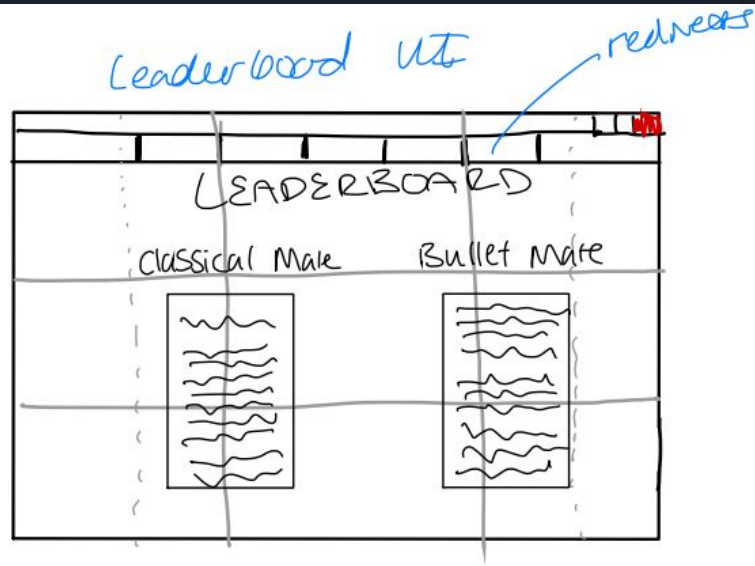


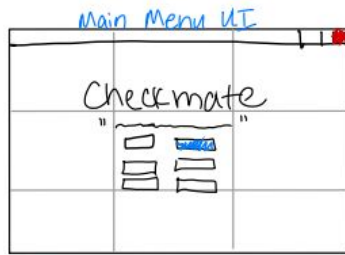
Drawings & Diagrams by
Autumn Hale



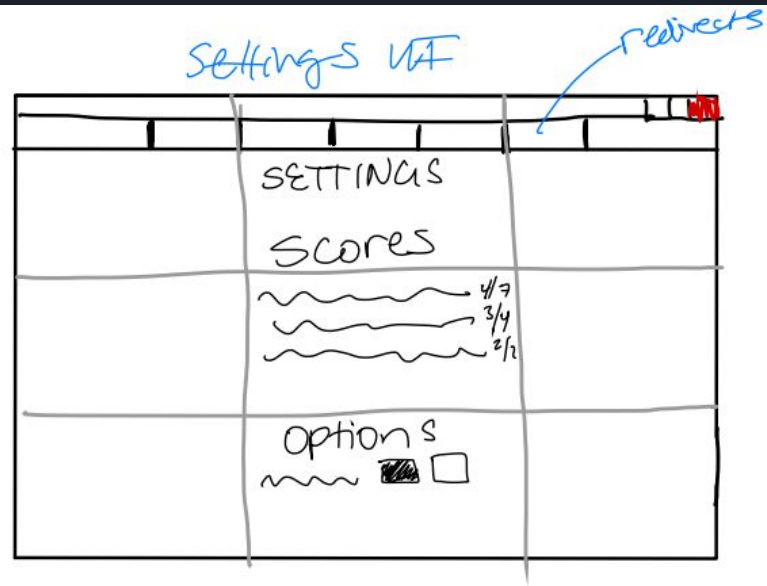


Drawings & Diagrams by
Autumn Hale





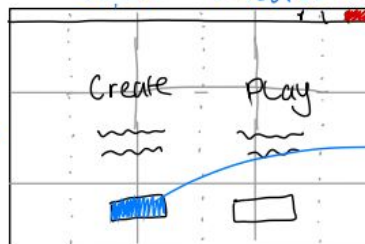
Drawings & Diagrams by:
Autumn Hale



Main Menu UI

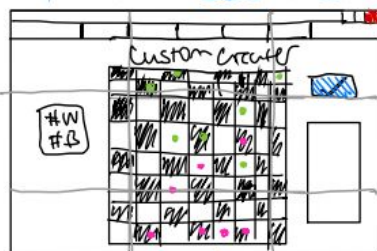


Custom Puzzles UI

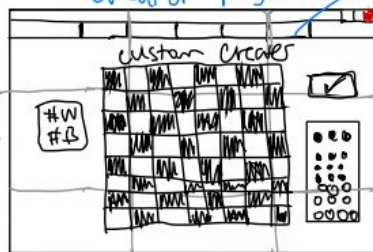


Not logged in?
Redirect to
Login UI.

Board state Confirmed UI

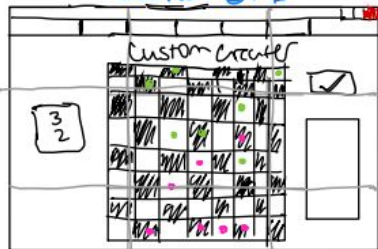


creator Page UI

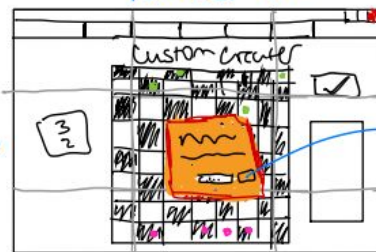


redirects

Solution Entry UI



upload UI



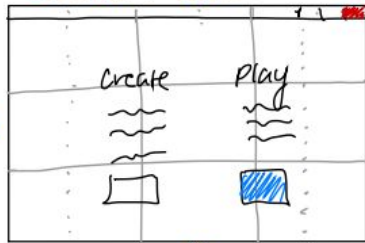
Custom Puzzles UI

Drawings & Diagrams by:
Autumn Hale

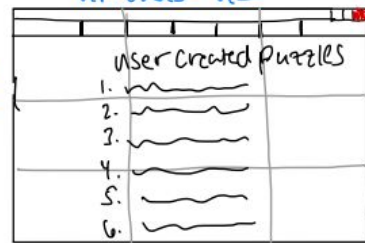
Main Menu UI



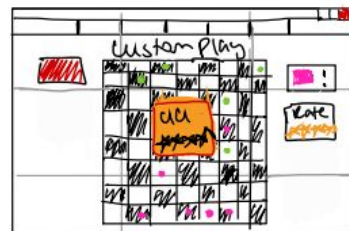
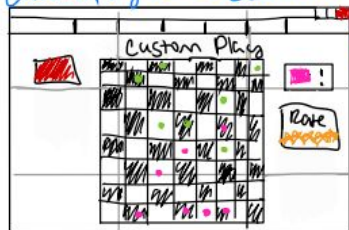
Custom Puzzles UI



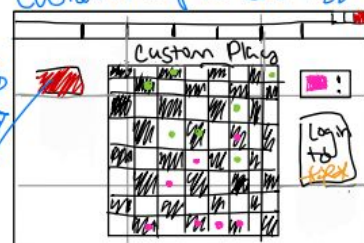
uploads UI



Custom Play UI (logged in)



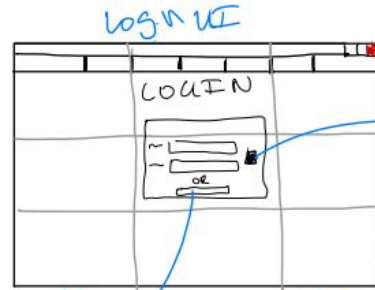
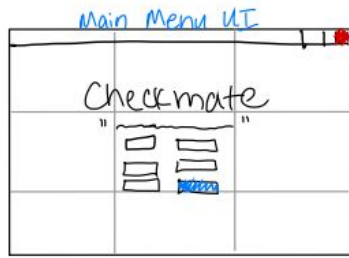
Custom Play UI (Not logged in)



uploads UI

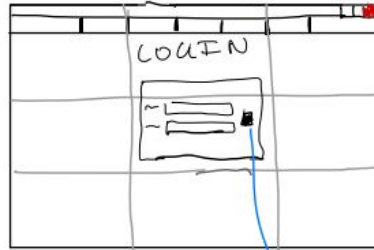


Drawings & Diagrams by:
Autumn Hale



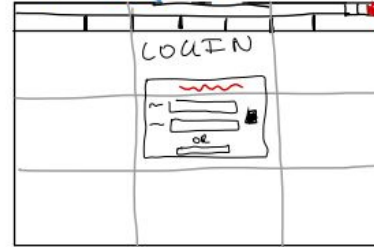
Main Menu UI
after success
A

Create Account UI



Login
UI after
success

Login Failure UI



* Logout idea
pending



Message Documentation

- Retrieve board data
 - Database to client
 - FEN, moves, puzzleID, rating, and themes from index
 - These will be use to populate the board and verify moves for both regular, and custom puzzles



Message Documentation

- Send leaderboard data
 - Client to database
 - Sends current score, username, and time if applicable
 - These are used to send a score to the leaderboard and save a user's past scores for their viewing



Message Documentation

- Retrieve leaderboard information
 - Database to client
 - Retrieves Usernames (string), Scores (number), and times (time) if applicable from all entries in the current leaderboards
 - These are used to display the leaderboard info as well as verify if a score should be submitted to the leaderboard



Message Documentation

- Send custom puzzle
 - Client to database
 - Sends a json with a custom puzzle's information to be stored in the database
 - This will be used for other users to play in the custom puzzles menu.
- (req. 7)
- Information includes the board state (string), correct moves (string) and puzzleid (string)



Message Documentation

- Retrieve custom puzzle list
 - Database to client
 - This will retrieve a list of custom puzzles' names (string), and rankings (number)
 - This information will be used to populate the custom puzzle selection window

ER Diagram

