

Screen Sketches

3\_Swarna\_3

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ChessApp

## Actors/Non Functional Requirements

### 1. Admin

- a. Primary role: Oversees system, manages both users/moderators.

#### Functionalities:

- a. Manage users and moderators (create, update, and delete accounts).
- b. Access and manage logs of gameplay and user activity.
- c. Handle user complaints and disputes.
- d. Create and modify game rules, settings, or chess tournaments.
- e. View reports and analytics on game activities, user engagement, and system metrics.

### 2. Moderator

- a. Primary Role: Monitors game fairness and user language/behavior

#### Functionalities:

- a. Monitor games for fairness and rules adherence.
- b. Resolve conflicts or report issues among users during or after games.
- c. Suspend or ban users for misconduct or breaking game rules.
- d. Review user-reported complaints or issues regarding inappropriate behavior or cheating.
- e. Provide support to users by addressing questions or game-related concerns.

### 3. User

- a. Primary Role: Interact with the chess platform to play games

#### Functionalities:

- a. Register and create a personal profile.
- b. Play chess games (online with other users or in tournaments)
- c. Add friends, invite them to play, or participate in group chess games.
- d. Chat with other players during games or in forums (with proper moderation).
- e. Customize game settings, such as board styles or game difficulty.
- f. Access leaderboards, rankings, and performance statistics.

## Non Functional Requirements

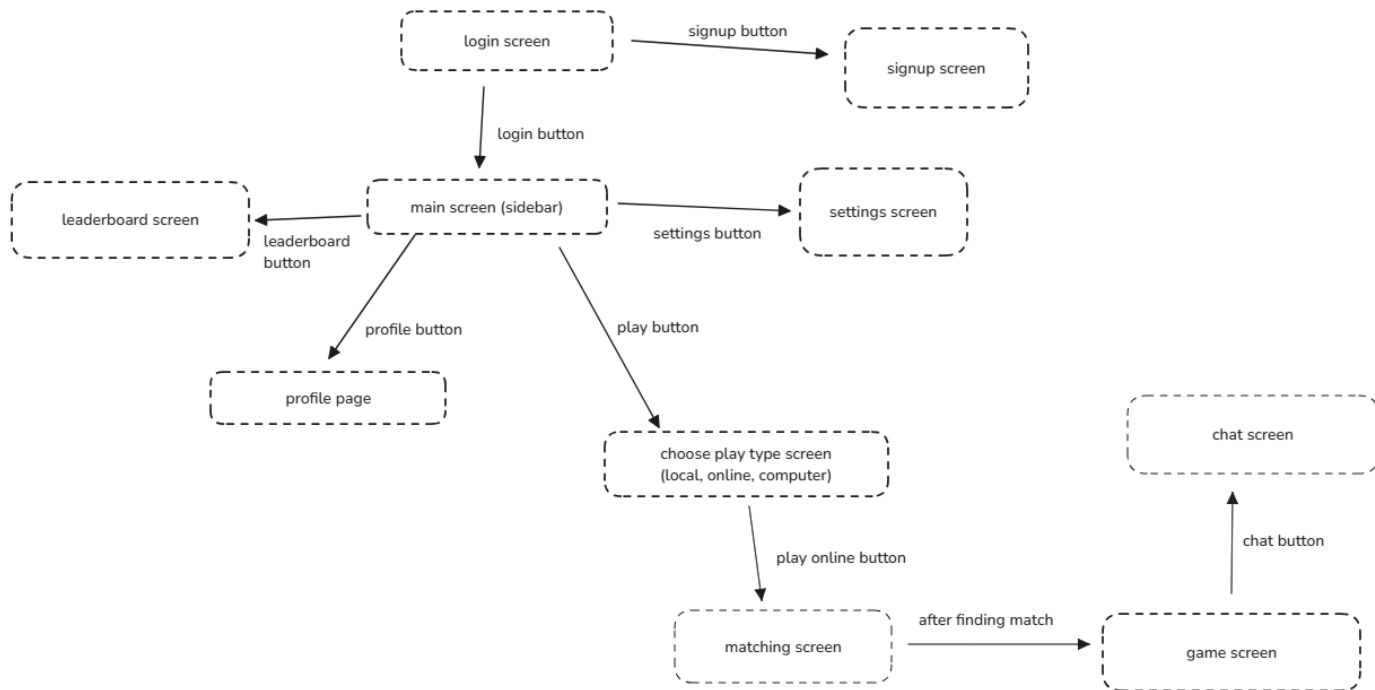
1. **Performance:** The application should have quick responses to user actions, such as loading games, moving pieces, and connecting to other players, to ensure a smooth user experience.
2. **Scalability:** The application must efficiently be able to handle an increasing number of users and data growth, ensuring that performance remains acceptable as the user count rises or as the amount of chess data increases.
3. **Reliability:** The application should function correctly, with minimal downtime or errors during gameplay, especially for critical features. Bug-free and works as intended.
4. **Usability:** The application should be intuitive and user-friendly, making it easy for players of all skill levels to navigate, understand, and enjoy the chess interface without requiring extensive learning or instruction.
5. **Security/Privacy Requirements:** The application must ensure user data, such as account information, is stored securely and complies with relevant privacy standards, protecting users' personal information from unauthorized access or breaches.

List tables and their fields needed for your project + table relationships

- **User:** Tracks information related to a user
  - User\_id (Primary key)
  - Activity
  - User\_name
  - User\_email
  - User\_last\_login
  - User\_losses
  - User\_made\_date
  - User\_name
  - User\_ranking
  - User\_wl\_ratio
  - User\_wins
  - User\_password
- **Privileges:** Determines level of permissions for a given user
  - Permission\_id (Primary key)
  - User\_id (User\_id for respective player)
  - Permission\_added\_date
- **Game:** Tracks information about a given game
  - Game\_id (Primary key)
  - Player1-1\_id (player 1 for team 1, references User\_id for respective player)
  - Player1-2\_id (player 2 for team 1, references User\_id for respective player)
  - Player2-1\_id (player 1 for team 2, references User\_id for respective player)
  - Player2-2\_id (player 2 for team 2, references User\_id for respective player)
  - Game\_start\_time
  - Game\_end\_time
  - Game\_result
  - Player1-1\_rating\_change
  - Player1-2\_rating\_change
  - Player2-1\_rating\_change
  - Player2-2\_rating\_change
- **Leaderboard:** Tracks information about the leaderboard
  - Leaderboard\_id (Primary key)
  - User\_id (User\_id for respective user)
  - Rank\_position
  - Rating
- **Messages:** Tracks information about messages (chat)

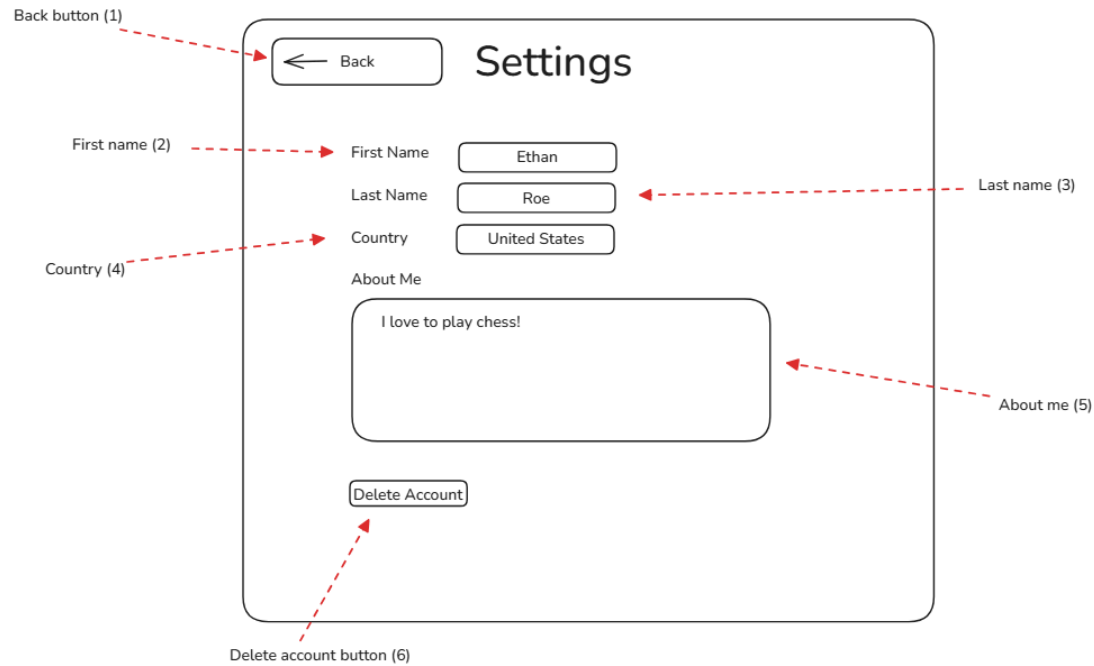
- Message\_id
- Sender\_id (References User\_id for sender)
- Receiver\_id (references User\_id for receiver)
- Message\_content
- Sent\_time
- **Friends:** Tracks information about friends
  - Friend\_id (Primary key)
  - User\_id\_1 (References User\_id of first user)
  - User\_id\_2 (References User\_id of second user)
  - Friendship\_start\_date

## Screen Flow Diagram

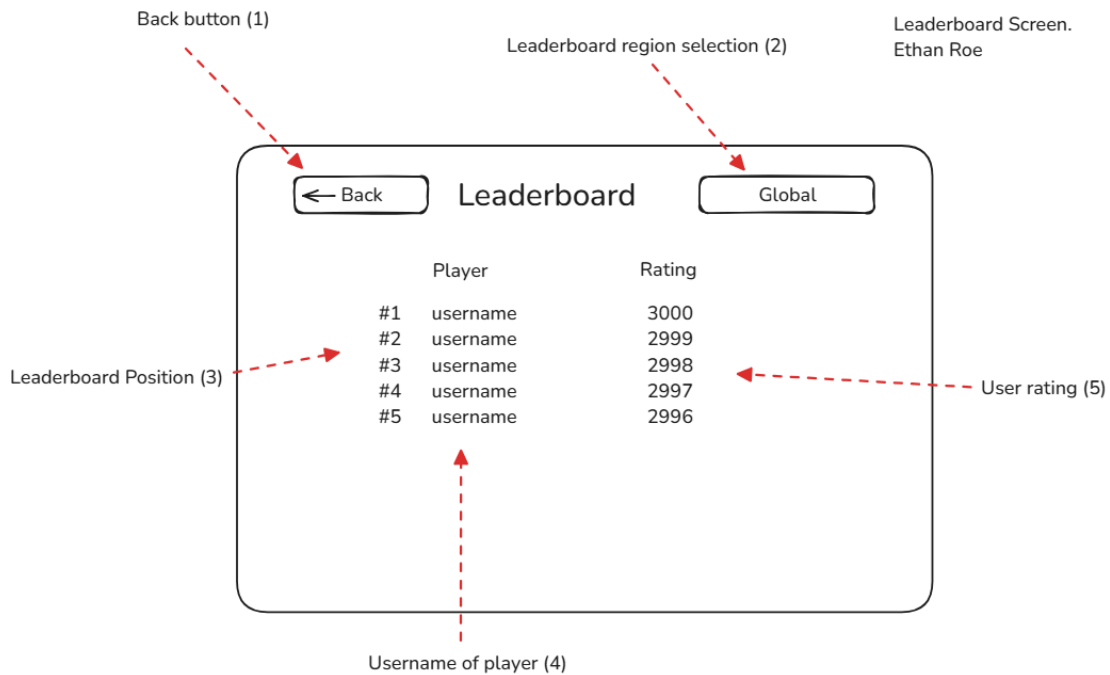


## Settings Screen

Ethan Roe

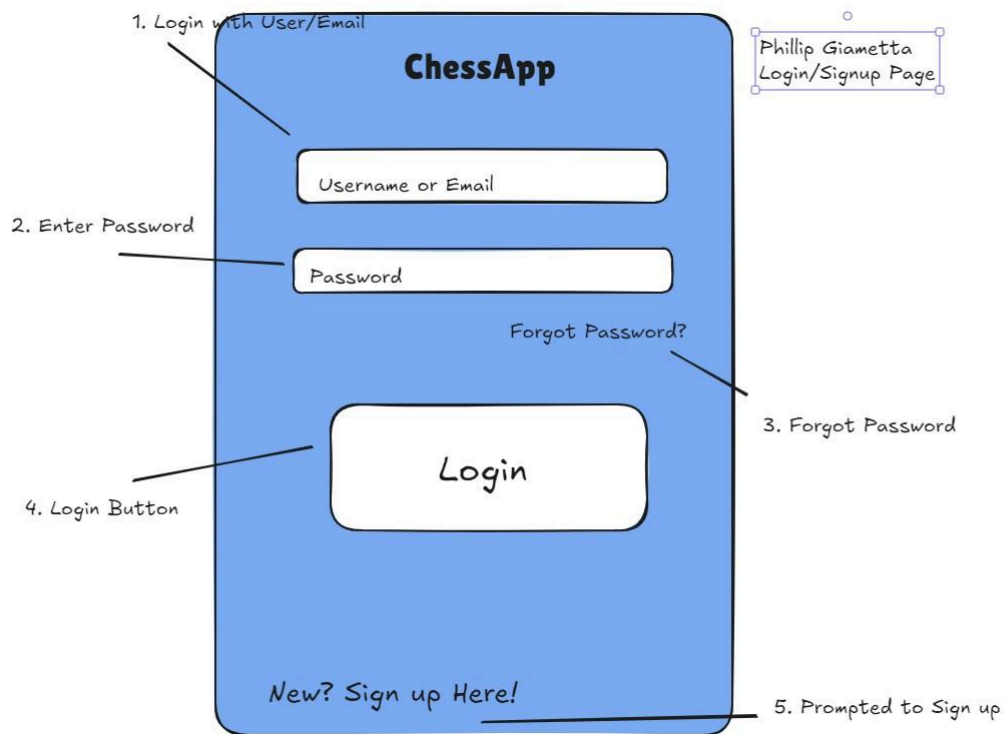


The settings screen allows the user to change some aspects of their profile. The settings screen appears when the settings option is selected from the home page. The user can navigate back to the home screen by clicking the back button (1). The user can add, or remove, their first name (2), last name (3), country (4) and add information in their about me (5). The user will also have the option to delete their account if they wish (6).



The leaderboard screen allows the user to see the highest-rated players globally or by region. The user can select and change the region the leaderboard is sorted by (2). The user can navigate back by pressing the back button (1). The leaderboard will display the top 5 users and their position on the leaderboard (3), their username (4), and their rating (5).





The Login Screen allows users to log in with an already existing account. Users will log in with a username or email (1) and their corresponding password (2). If the user has forgotten their password, they are prompted with the “Forgot Password?” option to reset their password (3). A login button is provided once the user has entered all their information (4) if the User has not already Signed up for an account, they are prompted to the bottom (5).

Phillip Giametta  
Login/Signup Page

1. Signup with User/Email

Username or Email

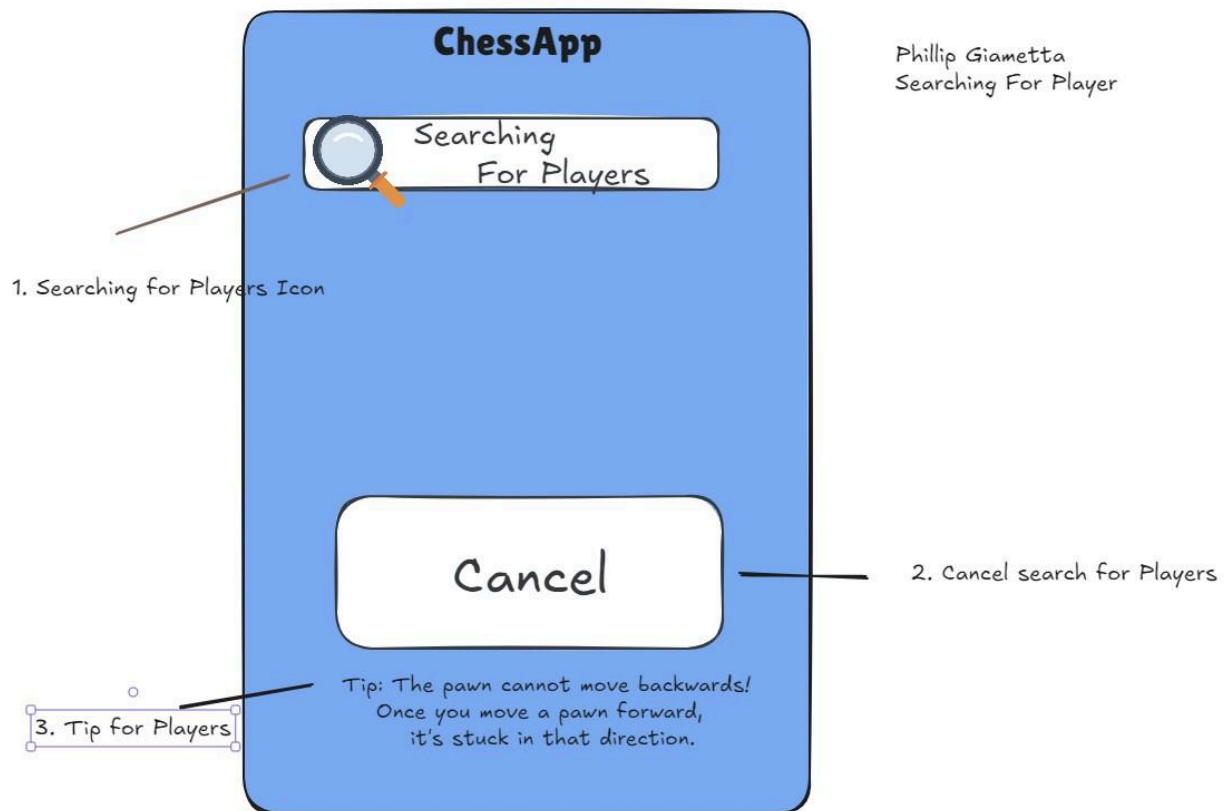
2. Signup with Password

Password

Continue

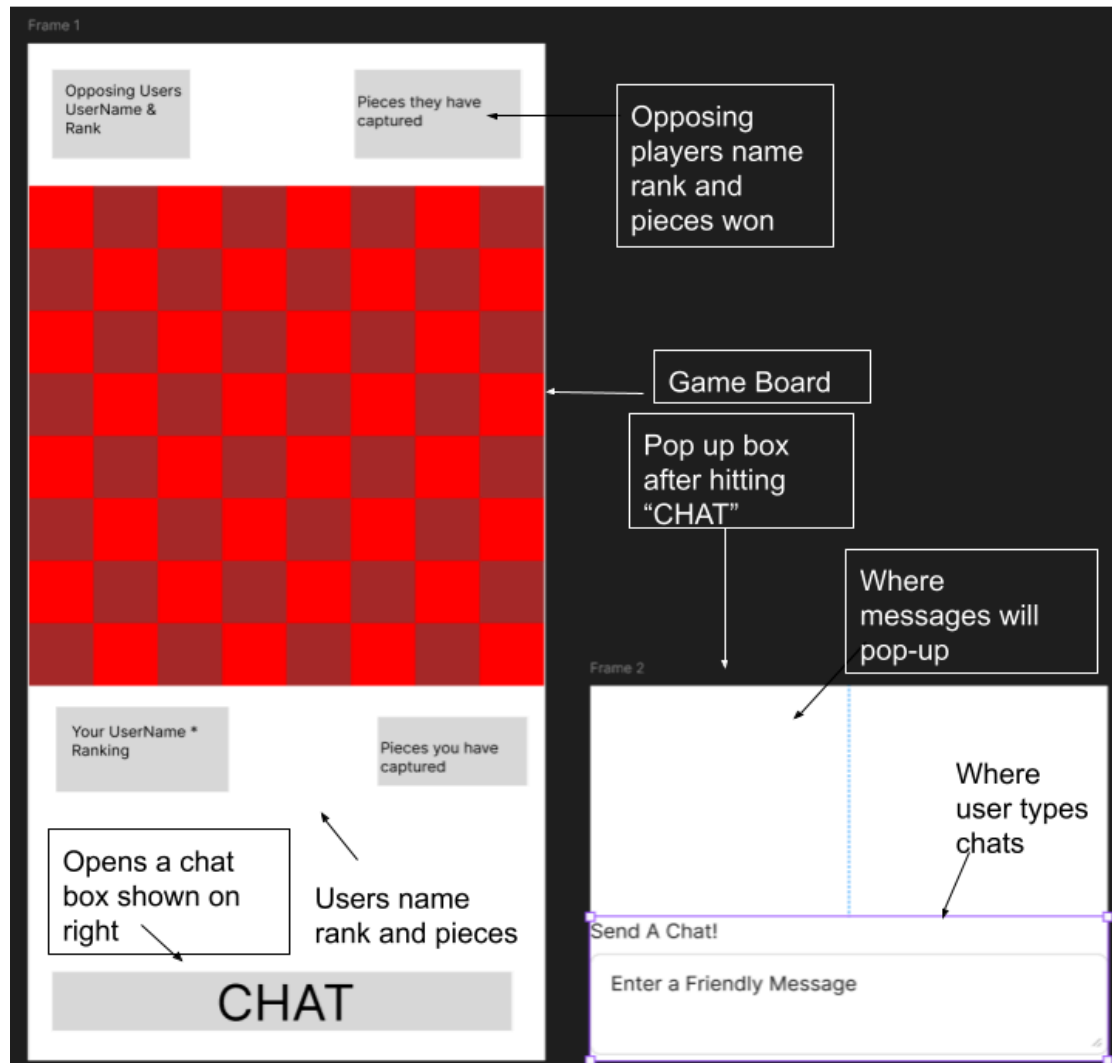
3. Continue Button

The Signup screen allows users to sign up for the Chess app. Users can sign through the use of a Username/Email (1), and their password (2). The Continue button (3), allows the user to continue to the following screen, allowing them to begin playing the game following completing their signup.



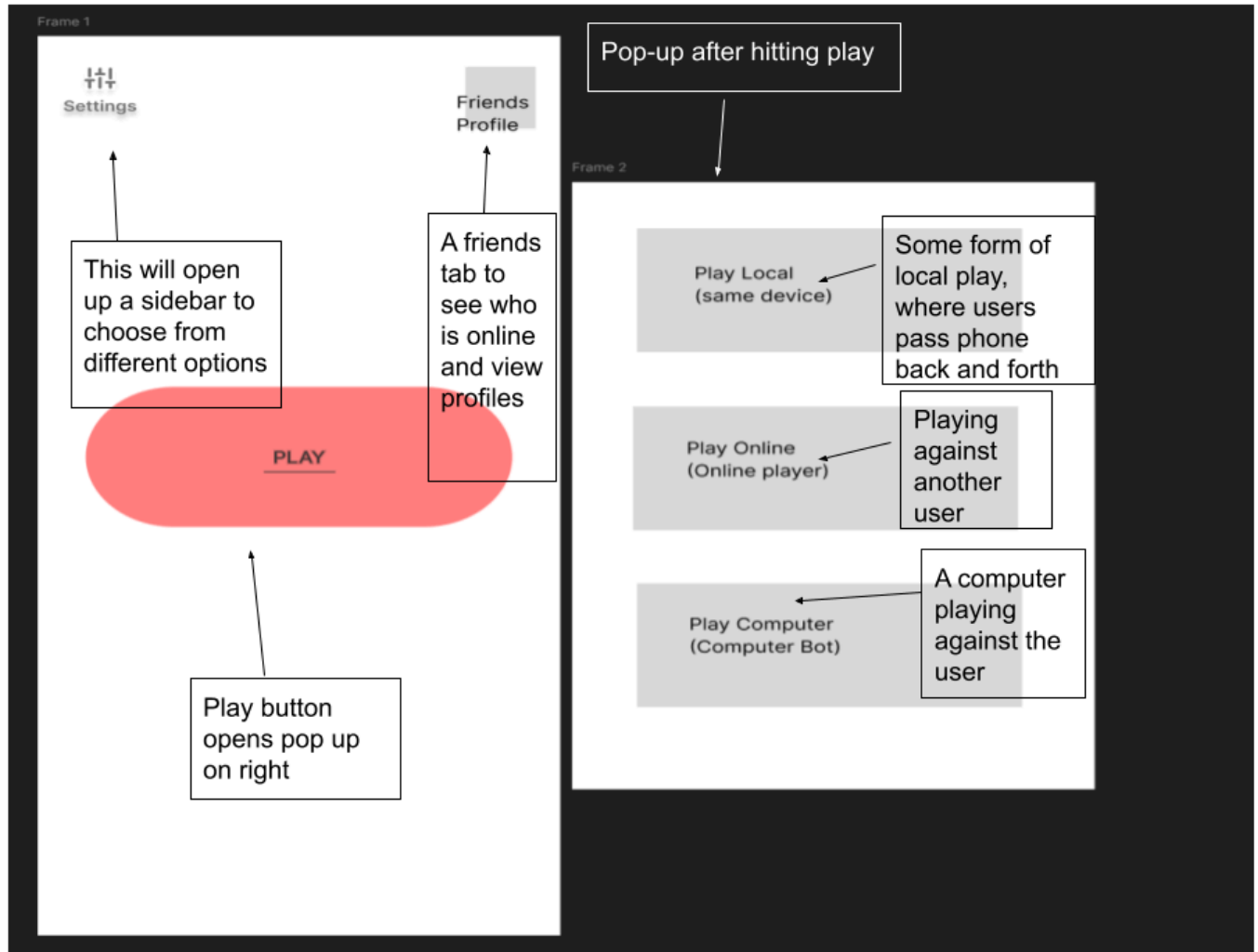
The Searching for Player screen, is an idle screen when the user is searching for an opponent. The user will be shown searching for player indicator (1) to clearly inform them that they are in matchmaking. There will be a 'Cancel' button below for the user to cancel matchmaking, this button will be easy to access, placed just below the searching icon. When clicked, matchmaking will halt, and the user will be taken back to the previous screen or dashboard. (2). Below the Cancel button, there will be a short chess tip, fun fact, or trivia to keep the user entertained while waiting. For example, a tip like "Did you know? The longest chess game theoretically possible is 5,949 moves!" or strategy advice like Try controlling the center squares to gain an advantage (3)!

Alec Moore



This is the main “board” page, where the player will physically play against another opponent. This also incorporates a chat button and pop-up, where the user or opponent can chat with one another midplay. The main board also includes a space to view the other player's name, rank, and pieces that they have throughout the game.

Alec Moore



This page is the main page after the user has logged in, it will have their friends as a quick drop-down, and have a sidebar for settings and logging out. Hitting the play button will have a pop-up window that will allow the player to choose what kind of opponent they want to play against a bot, online player, or local.

Profile page

Profile picture

Username ✎

Rating

Status

Last online  
date

Joined  
date

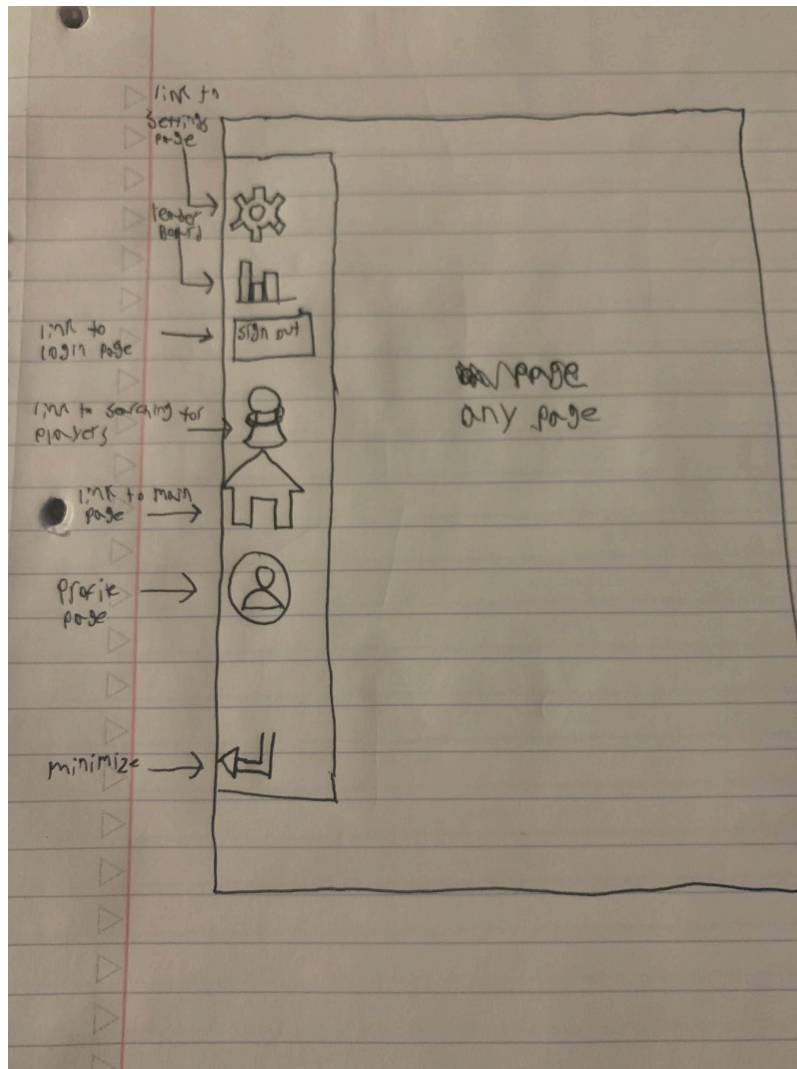
Followers  
#

Recent games

Players	Result	Moves	Date
$P_1$ vs $P_2$	0 or 1 or $\frac{1}{2}$	#	The date
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮

This is the profile page. The profile page will contain a profile picture, username, status (online, offline, idle), player rating, last online date, joined date, and number of followers/friends on the app. Later, it might include a recent games section that will include which players were part of the game, the result of the game, the amount of moves made in the game, and the date the game took place. You can edit the username by clicking the pencil icon in the corner of the box.

By Noah Busack



This page is a sidebar that will appear on most pages with the exception of maybe when the player is in-game. The point of the sidebar is to allow for easy navigation between pages. From top to bottom, the buttons will link to settings, leaderboard, signup page, searching for players page, and profile page. The last button is to minimize the sidebar. I have chosen to not include the signup page because that page should only be accessible through the login page. The link to searching for game page will attempt to start a game. If a player tries to link to a page they are already on (for example clicking the profile page while already on the profile page) the page will refresh.

By Noah Busack