Screen Sketches

#3_swarna_5:

Ben Eschman

Filip Forsberg

Sam Craft

Evan Litzer

CySino

Actors

Lobby host:

Has following privileges

- Start/End a game/lobby

- Adjust game rules

- Invite players

- Kick players

- Type in chat room

- Leave game

Player:

Has following privileges

- Invite players

- Type in chat room

- Leave game

Users:

Has following privileges

- Host a game lobby

    - Will then become a Lobby host

- Join a game lobby

    - Will then become a player

- Add/remove friends

- Write direct messages to other users on their friends list

Administrator:

- Test out features and games to check its functionality.
- Needs to have correct tools to analyze the app for faults.
- Must have access to error messages and where/when/how the program is failing to work.

Leaderboard and Statistics System:
- Tracks which users are doing better than others by how much artificial currency their account has.
- Also can track wins and losses → needs access to the user's past performance.

Blackjack Game Engine
- Platform that hosts the game itself, that enforces all of its rules, and makes sure the game is running smoothly.
- Programming is directed by its regulations, the actual game of the app.
- Has no privileges, but is the foundation of the blackjack game that helps it run smoothly and accordingly.

AI/Computer Opponents
- Computer-led users that compete with user.
- The 'placebo' trial group of the user experience, tests how their betting is doing against the baseline.
- Has privilege to participate in single player games, bet-behavior is pre-programmed.

VIP:

New User:

Non-Functional Requirements

Performance (Response time):

- The program must be able to register user actions within a second
- The program must be able to sync all users

Space requirements:

- The program must be able to hold enough lobbies for as many users as we have - minimum of 100 capable users.
- The program must have enough storage for all of user chats

Scalability:

- The program must be able to be scaled up to thousands of users.

Reliability:

- The program must keep user data even during a crash.

Compatibility:

- The program must be able to be used on chrome as well as android.

Tables and Fields

User - Tracks information for user
- Login information -> sub Database
    - Username
    - Password
- Username - shown to everyone
- Biography text
- Profile pic
- Favorite games

Transactions - tracks the transactions of users
- win/loss
- Amount won or lost
- Game won/lost at
- If lost, user who won

Player Stats - tracks the statistics for the user of each game
- Game
- Win rate
- Net total chips

Game Stats - Tracks the statistics of every game for all users
- Game
- Win rate
- Net total chips won from casino

Lobby - Tracks all the users in a lobby, the hand, and the bets
- User
- Cards in hand
- Bets on table
- User win %

ChatLog - history of users chats
- Date sent
- Message sent
- User 1
- User 2

GameLog - history of games and outcomes
- Users in lobby
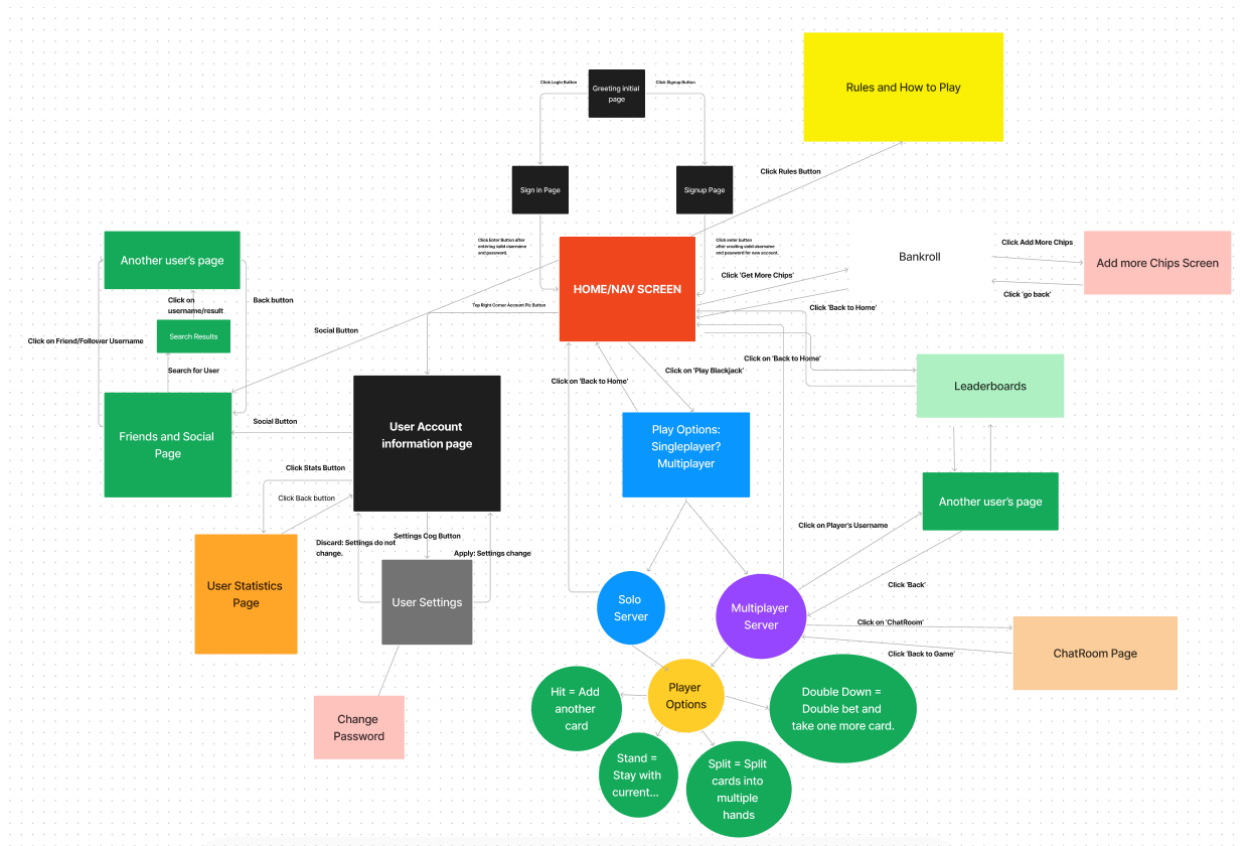- Amount won/lost

Friends - list of friends
- Friend
- Chatlog DB link

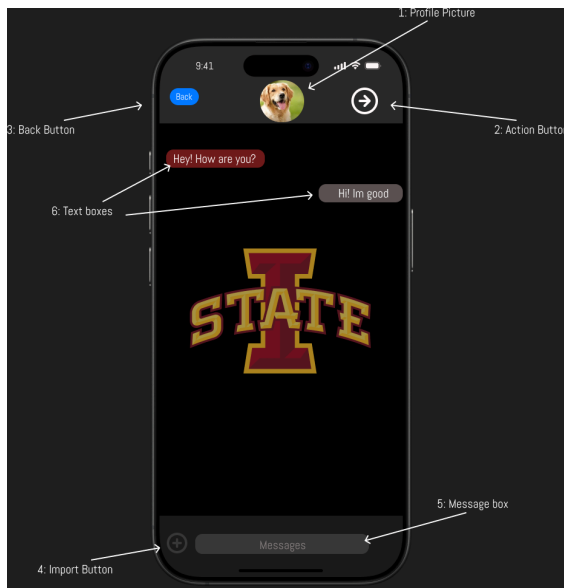<u>Game-Deck Information Data Table</u>
- Fields = game ID, deck ID, card value, user ID or dealer where card is dealt
- Table Relationship = **One to One** (for one deck) | **One to Many** (for multiple decks)
    - Game ID would be foreign key, Card ID would be primary key.
    - Ensures that impossible card combinations do not happen.
   - Deck table tracks which cards are dealt and to who.

Screen Flow

Greeting initial page

Click Login Button

Click Signup Button

Rules and How to Play

Sign in Page

Signup Page

Click Rules Button

Another user's page

Click Enter Button after entering valid username and password.

Click enter button after entering valid username and password for new account.

HOME/NAV SCREEN

Bankroll

Click Add More Chips

Add more Chips Screen

Back button

Click 'Get More Chips'

Click on username/result

Click 'Back to Home'

Click 'go back'

Search Results

Search for User

Social Button

Top Right Corner Account Pic Button

Click on 'Back to Home'

Click on 'Back to Home'

Click on Friend/Follower Username

Click on 'Play Blackjack'

Leaderboards

Friends and Social Page

Social Button

User Account information page

Play Options: Singleplayer? Multiplayer

Click Stats Button

Click on Player's Username

Another user's page

Click Back button

Settings Cog Button

Click 'Back'

User Statistics Page

Discard: Settings do not change.

Apply: Settings change

User Settings

Solo Server

Multiplayer Server

Click on 'ChatRoom'

ChatRoom Page

Click 'Back to Game'

Change Password

Player Options

Hit = Add another card

Double Down = Double bet and take one more card.

Stand = Stay with current...

Split = Split cards into multiple hands

Screen Sketches

Chat room - Ben Eschman

The chat room screen is used for users to communicate with one another. Users can send one another messages, images, and currency. (1) the profile picture is used to show who you are messaging, when clicked it will bring you to the user profile. (2) The action button is used to send or request currency. (3) The back button is self explanatory, it will bring the user back to the friends page. (4) The import button can be used to send pictures. (5) The message box is used to send messages. (6) The text boxes show previous messages sent(in Red) and received (in Gray).

Chips - Ben Eschman
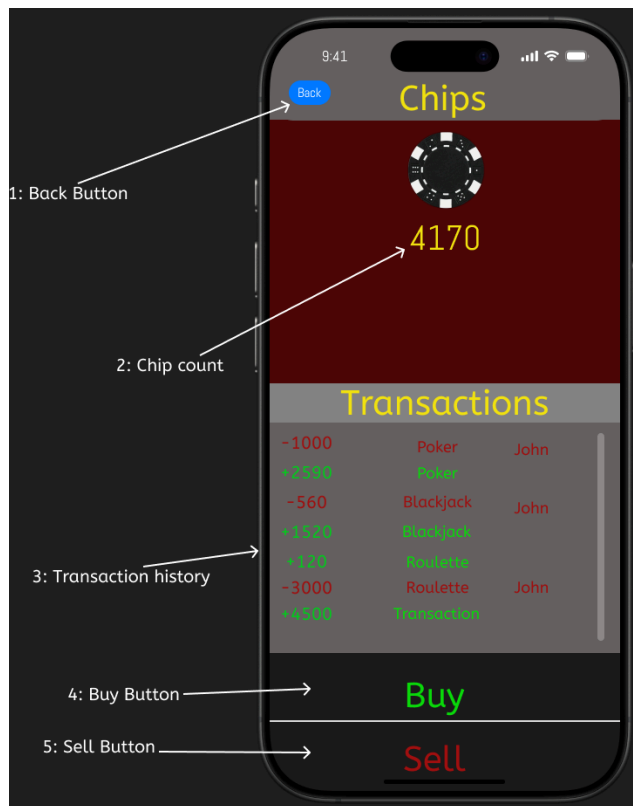
This page will be used for the user to track their chips. It allows the user to see their total chips, wins and losses, and to buy/sell chips. (1) Back button, self explanatory, back to home. (2) Chip count shows how many chips the user has. (3) Transaction history shows the amount of chips won or lost in a scroll down menu. The menu includes the amount of chips, where it was won or lost, and if it was lost, who it was lost to. (4) The buy button allows the user to buy more chips. (5) The sell button allows the user to sell their chips.
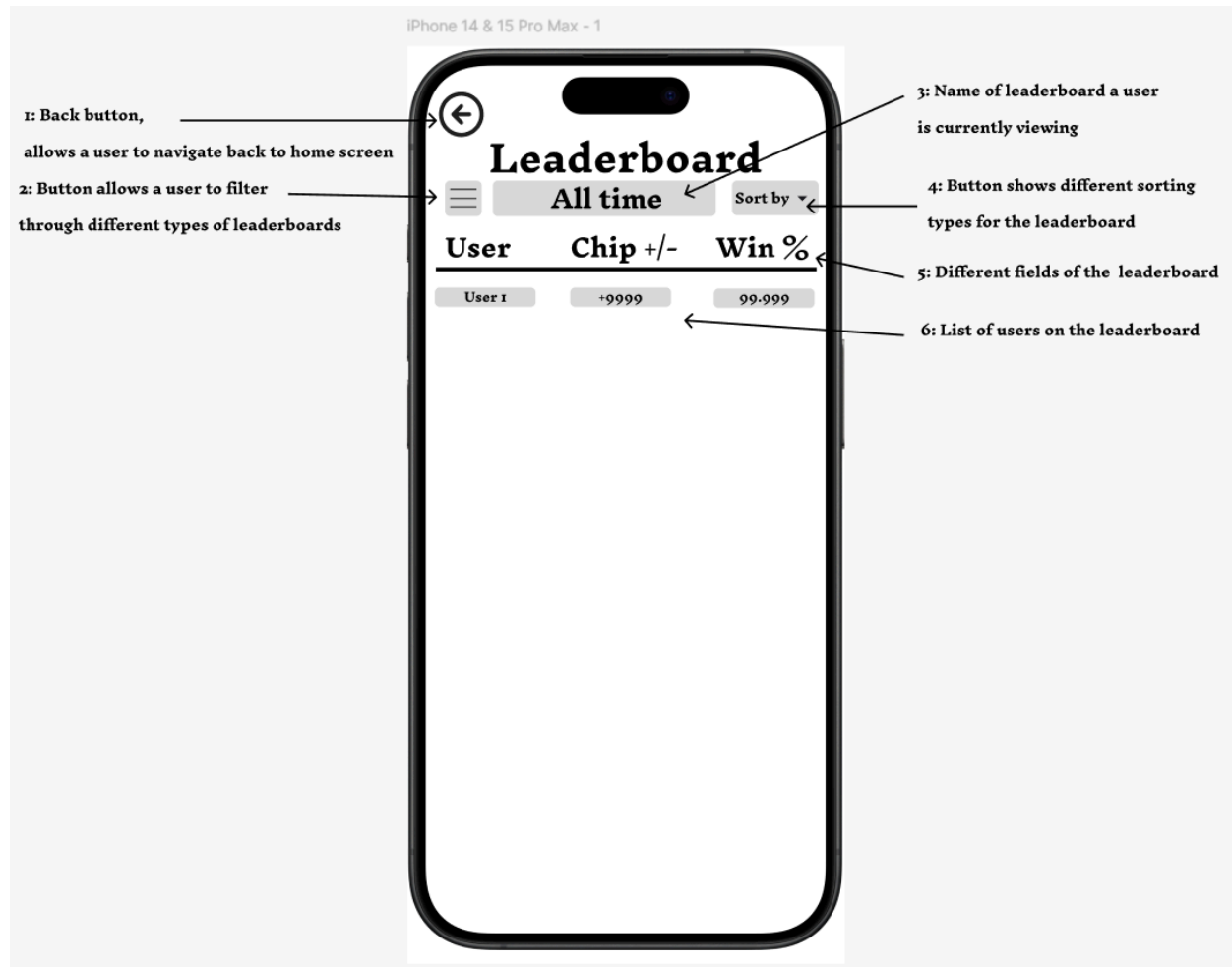
User profile - Filip Forsberg
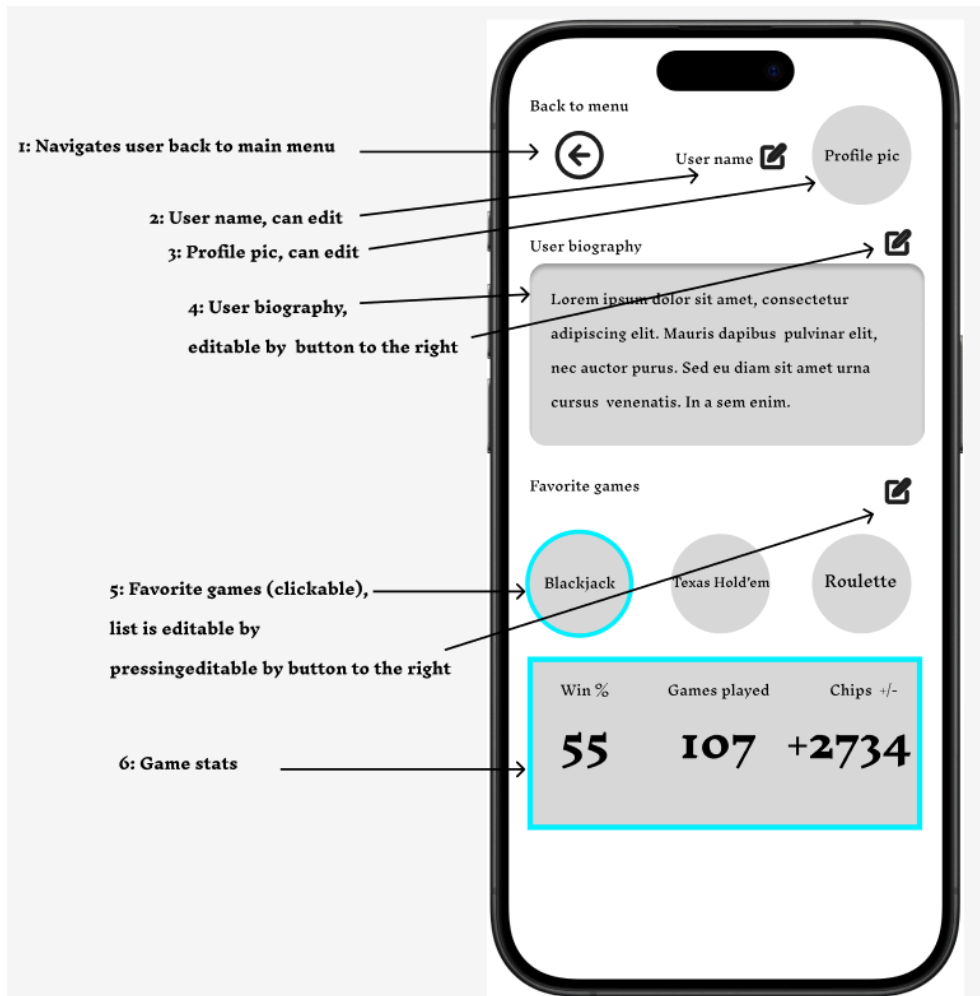
This screen allows a user to view and edit their own user profile. It has a couple of options available when it comes to editing the screens information:

- Back to menu - 1
  - Button takes you back to main menu page
- User name - 2
  - Editable by pressing its associated button
- Profile pic - 3
  - It is not easy to see that it is clickable and editable other than the intuition from common profile designs.
- User biography - 4
  - Has an icon associated with it to the right that allows the user to edit the text written inside their biography.
- Favorite games - 5
  - Shows a user's list of their 3 favorite games
  - The games are clickable to highlight game-specific statistics for the user

- ○ The list is editable by the user by pressing the associated button to the right
- Game stats - 6
  - ○ By clicking on a game in the favorite game list (5), you get specific statistics from the game presented in the box

User leaderboards - Filip Forsberg

Leaderboard

1: Back button, allows a user to navigate back to home screen

2: Button allows a user to filter through different types of leaderboards

3: Name of leaderboard a user is currently viewing

4: Button shows different sorting types for the leaderboard

5: Different fields of the leaderboard

6: List of users on the leaderboard

This screen allows any user to view the leaderboard for different games and by sorting through different metrics.

- 1 - Back button for navigation back to home screen
- 2 - The menu button to the left of "All time" lets the user pick different types of leaderboards. For example:
  - All time
  - Blackjack
  - Roulette
  - Etc…
- 3 - Shows the name of the current leaderboard that is viewed
- 4 - The menu button to the right of "All time" let's a user pick different ways of sorting through the list, for example:
  - By Chip +/-
    - Ascending
    - Descending
  - Win %

- ■ Ascending
- ■ Descending
- ● 5 - The different fields of information on the leaderboard
  - ○ Username
  - ○ Chip +/-
  - ○ Win %
- ● 6 - List of users in the current leaderboard (3) that is sorted according to (4)

Game lobby - Sam Craft
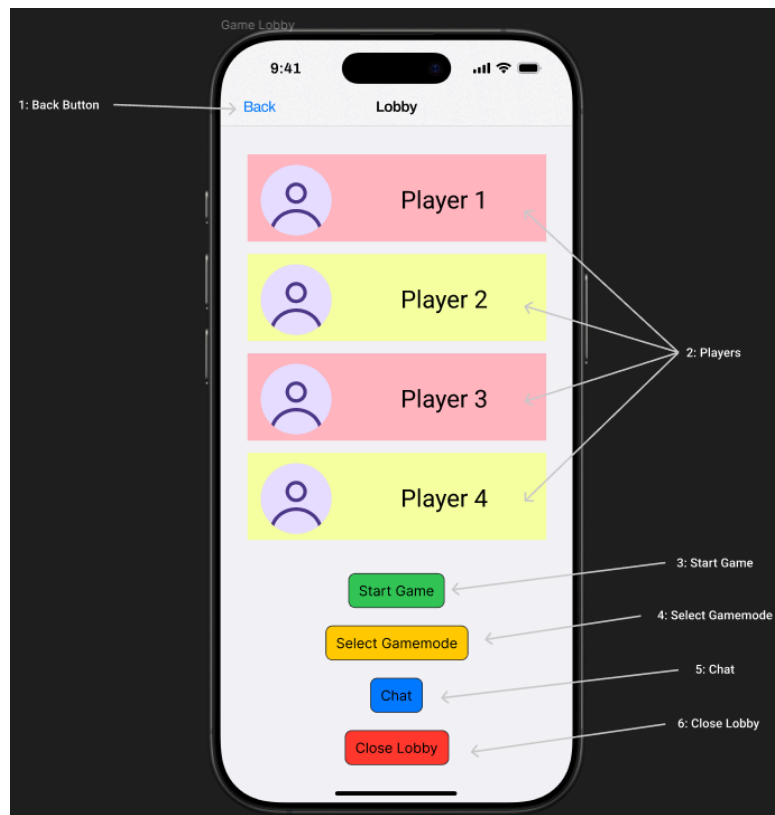
1: Back Button

The back button will take you back to the home page if you change your mind about playing in the multiplayer game.

2: Players

The players in the game are listed at the top of the screen. If there is an empty slot, it will say empty instead of showing a player. If you click on a player, it will take you to their user profile, allowing you to learn more about them.

3: Start Game

The start game page will select the game that is selected. Game in the start game button will change to the chosen game mode's name.

4: Select Gamemode

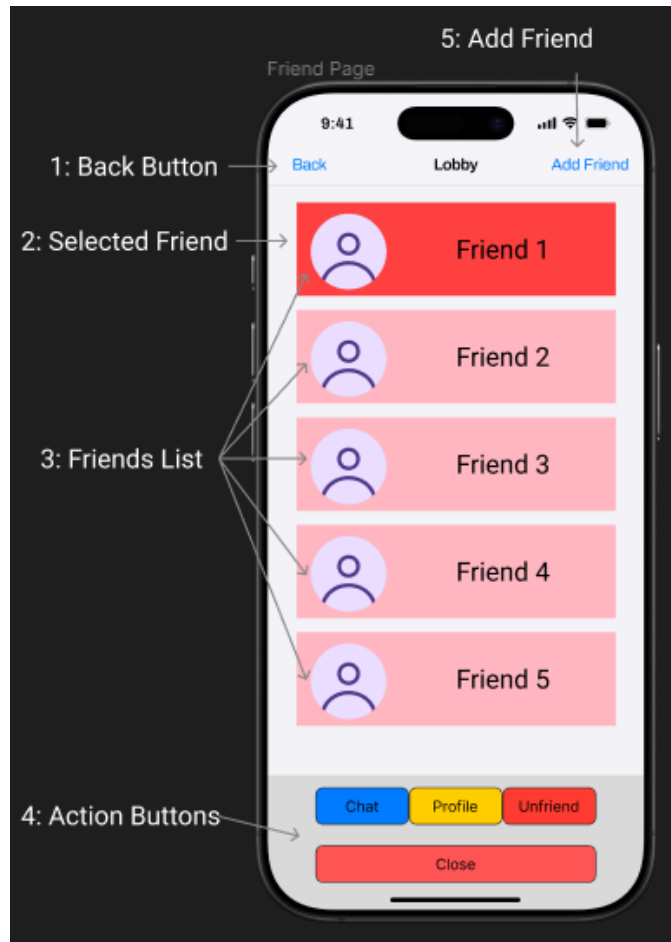This allows you to change what gamemode you are playing with your friends.

5: Chat

This button brings you to a chat with the rest of the people in the lobby, allowing you to communicate with them.

6: Close Lobby

Close lobby will only show up if you are Player 1 in the lobby. This lets you close the lobby, kicking everyone back to the main menu.

Friends Page - Sam Craft

1: Back Button
        Navigation page to home screen
2: Selected Friend
        The currently selected friend will be a darker color to distinguish from the other friends. The selected friend will be the only friend the action buttons apply to
3: Friends List
        This shows all of your friends that you have on the game
4: Action Buttons
        The action buttons will allow you to interact with the selected friend. Chat will bring you to your chat with that friend, profile will show their profile, and unfriend will bring up a prompt for you to unadd the selected friend. The close button closes the action buttons and deselects the selected friend.
5: Add Friend
        The add friend button will prompt you to enter the code of the friend you want to add to your friends list.

Evan Litzer – Blackjack Multiplayer Screen

1. Dealer's Hand
2. Deck for next cards.
3. User and other player's hands.
4. Usernames of table users, linking to the account pages.
5. Blackjack buttons representing user decisions.
6. Chatroom button linking to chatting interactions and logs between users. Includes betting amount before hand begins.
7. Bet and Balance amount for the user.
8. Back button linking server back to home page.

The multiplayer blackjack interface allows a user to gain practice when playing and enjoying blackjack while also having the opportunity to interact/play with other users. The interface displays all hands of the dealer and other users, as it attempts to simulate the casino experience of betting with others. User input is taken from the decision buttons. Cards are dealt, withheld, or split based on user decision with these inputs. Games and hands reset after all user inputs are quiered and processed accordingly, in which the dealer then flips their second card over and draws more until it reaches 17 or higher.

The simulated game would first start with the user inputting how much they'd like to bet, or if they would rather sit out and watch. This input would be asked in the (5) position, and if the user provides a number, would be stored in the 'Bet:' value (7) along with their withstanding chip balance. Then the actual game would begin, with cards sliding out from the deck (2) into the hands of the users (3) and the dealer (1). Each of the user hands are dealt two cards up whilst the dealer has one card up and down. Then, each user is prompted by their in-game options (5) based on their reaction to whatever number their hand displays. If they hit, another card is dealt. Stand: no more cards are dealt and it is the next user's turn (or the dealers). Double and the user's bet is doubled and one more card is dealt. Split and the user's hand is divided into two hands, their ante increased by twofold, and they are further prompted with their two hands. The game ends when it is the dealer's turn, who also attempts to target 21. To access other in-game users accounts, a user may click on any username label (4). Users can also access the in-game chatroom by clicking its button (6). Users may exit the game and reach the homepage after clicking the back button (8).

BLACKJACK PAYS 3 TO 2
DEALER MUST STAND ON 17

USERNAME
USERNAME
USERNAME

Hit
Stand
Double
Split

Chatroom

Bet:
Balance:

BACK

Evan Litzer – Home/Navigation Screen

Play Blackjack — 1.

2. — Rules and FAQ

Community — 3.

4. — Bankroll

Settings — 5.

8.

Log Out

7. Cy's Tip of the Day:

6.

1. Button connecting to blackjack lobby selection screen.
2. Button that when clicked, takes the user to blackjack's rules and FAQs.
3. Button that switches the screen to the user's social page.
4. Button that transports one to the page where one can get more chips and check their chip balance.
5. Button that navigates to the app accessibility and preferences screen.
6. Button that allocates user to their user profile window.
7. "Cy's Blackjack Tip of the Day:" displaying tips for playing blackjack.
8. Button that logs out a user's account and takes them back to the login page.

The homepage allows a user to navigate through the app with ease in an accessible and straightforward way. This way, all features of the app may be accessed directly from one page without frivolous attempts made from different screens. It is quite frankly the most important screen to the UI of the app, acting as a map to all of its features. With the simple click of a button, a user can view their profile, change their settings, view their social page, join a blackjack lobby, etc.

When the user logs in or signs up their account, they are directed to this homescreen. They also view the homescreen whenever they click 'back' on any feature. If the user wants to load a blackjack game, they'd click the 'play blackjack' button (1). One who would want more knowledge about the game would click the 'rules and FAQ' button (2). Below that is the button connecting to the 'community' page (3), which displays the social page of a user. If the user wants to check their balance or add more chips, they would select the 'bankroll' button (4) to view their artificial currency financials. Finally, the 'settings' button (5) directs the user to their editable preferences regarding app functions. The user may also see their account page by clicking the user button (6) and may log out of it by clicking the logout button (8). If the user wants a quick tip, they can refer to 'Cy's tip of the day' (7), displaying a blackjack instruction that can help user game performance.