

Minigames W Friends

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Actors

1. **Player/User:** Engages with the app through multiple avenues: initiating and joining game sessions, engaging in real-time chats with friends, customizing user profiles, and receiving and showcasing awards and badges for various achievements. This actor represents the core interaction with the app.
2. **Admin:** Responsible for overseeing the app's ecosystem. This includes managing user accounts, moderating content to ensure it adheres to community guidelines, updating game content, and manually awarding badges for special events or achievements. Additionally, the admin handles user feedback to improve app functionality and user experience.
3. **System:** Acts as the backbone of the app, handling critical operations such as user authentication, session management, push notifications for real-time updates, and the automatic distribution of awards and badges based on predefined criteria. It ensures the smooth operation of background processes essential for app functionality.

Functional Requirements

1. **User Authentication:** Comprehensive management allowing users to register, log in, log out, and securely reset passwords.
2. **User Profile Management:** Provides a rich user experience, allowing updates to personal information, preferences, and photos.
3. **Gameplay:** Offers a robust gaming platform where users can participate in games, access detailed stats and histories, and rate games for community feedback.
4. **Social Interaction:** Facilitates a vibrant community by enabling users to add friends, join friend groups, initiate private or group chats, and share game achievements.
5. **Awards and Badges:** Integrates a dynamic awards system recognizing a wide range of achievements, both in-game and community-oriented. Includes rare badges for significant milestones and the ability to display achievements on user profiles.
6. **Notifications:** Utilizes an intelligent notification system to inform users about game invites, friend requests, chat messages, and achievements.

Non Functional Requirements

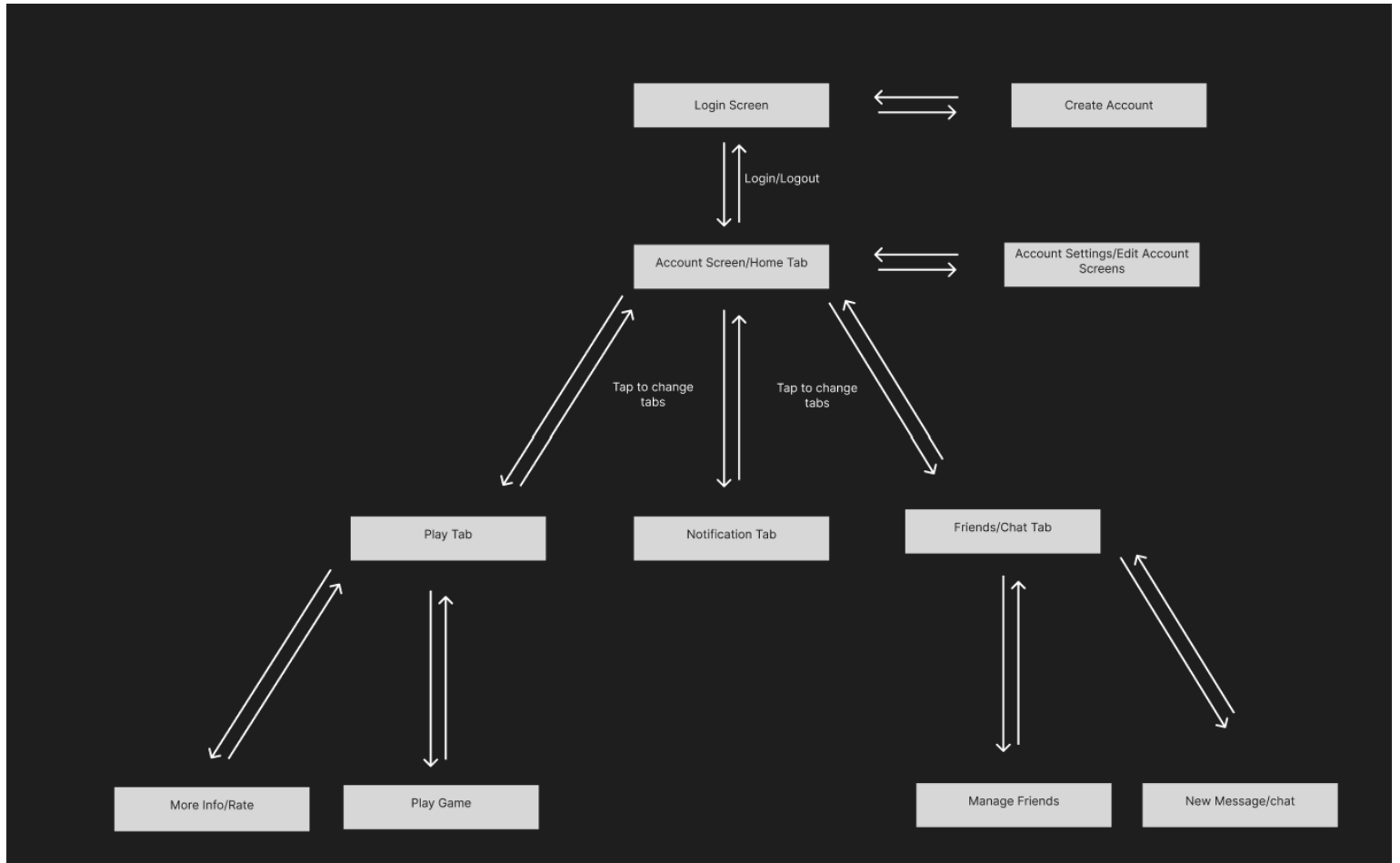
1. **Performance:** Ensures seamless, responsive interactions across all app features, supporting high concurrency levels without degradation in user experience.
2. **Scalability:** Designed to gracefully handle an increasing load of users and simultaneous game sessions.
3. **Usability:** Focuses on delivering an intuitive and engaging user experience with a clean, accessible UI design and comprehensive tutorials.
4. **Compatibility:** Guarantees a consistent and reliable experience across various Android versions and devices, ensuring adaptive layouts and testing with a wide range of screen
5. **Reliability:** Ensures high availability and fault tolerance through redundant systems and regular backups, minimizing downtime and data loss.

Tables and Figures

- User: Tracks important user information
 - User-Id : Primary Key
 - Username
 - Hashed Password
 - User-Email
 - Last login
 - Profile description
 - Profile picture
 - Cards : List of foreign keys (Card-Id)
 - Friendlist: List of foreign keys (User-Id)
- Savegames: Tracks not finished games, so users can rejoin
 - Game-Id : Primary Key
 - Players : List of foreign keys (User-Id)
 - Player1-Cards
 - Player2-Cards
 - Player3-Cards
 - Player4-Cards
 - Stack-Left
 - Played-Cards
- Cards: Track special cards given out as rewards
 - Card-Id : Primary Key
 - Name
 - Value
 - Effect
- Friend-Groups: keeps track of created friend groups
 - Group-Id: Primary Key
 - Users: List of foreign keys(User-Id)
- Scoreboard: Keeps track of highscores
 - Score-Id: Primary Key
 - Value
 - User: foreign key(User-Id)
- Permissions: keeps track of User-Roles
 - Permission-Id: Primary Key
 - User: foreign key(User-Id)
 - Role

- Date-granted
- Notifications: keeps track of the notifications of a specific user
 - User: Primary Key and foreign key
 - Notification-Objects : list of foreign keys (Notification-Id)
 -
- Notification-Object: object for notification
 - Notification-Id: Primary Key
 - Created-At
 - Header
 - Body
 - Type
- Chat-Room: keeps track of the chat-rooms
 - Room-Id: Primary-Key
 - Users: list of foreign-keys (User-Id)
 - MessageStorage: foreign-key (MessageStorage-Id)
- MessageStorage: Stores Messages
 - MessageStorage-Id: Primary-Key
 - Messages: List of foreign-keys (Message-Id)
- Message: is a message
 - Message-Id: Primary Key
 - Sender: foreign-key (User-Id)
 - Content

Screen Flow Diagram



Login Screen

Login/Create Account

Please Enter you username and password or create an account

Account Username

Password

Login

Create Account

Forgot Password?

Account

Play

Friends And Chatting

Notifications

Account/Home

Account

<USER ID>

User Photo

Self Written Bio

Change Username

Change Password

Change Email

Logout

Account

Play

Friends And Chatting

Notifications

Account Login Screen

By Alek Norris

- **Account Username** - username field for login
- **Password** - Password field for login
- **Login** - a clickable button that will send the username and password over to be authenticated, resulting in going to the home screen or a message saying the account could not be found.
- **Create Account** - and interactable button that Allows a user to create a new account
- **Forgot Password** - Allows a user to reset their password if forgotten (specifics of what will be required have not yet been decided)

Account Home Screen

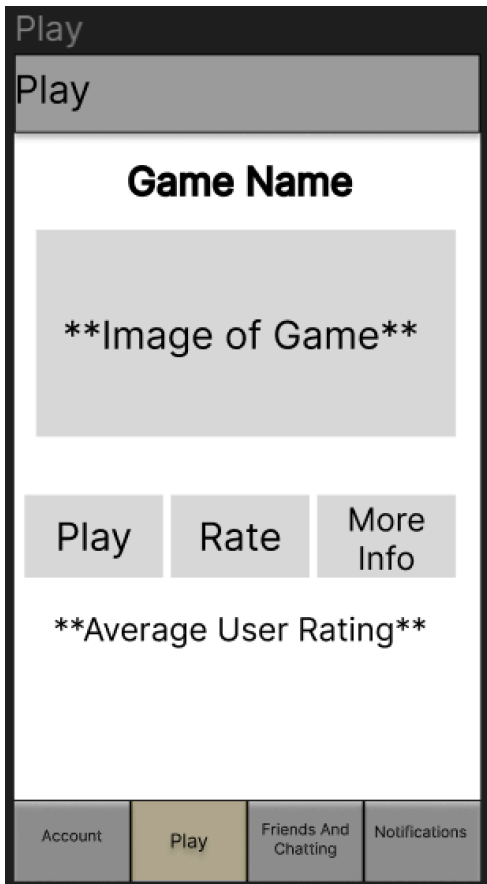
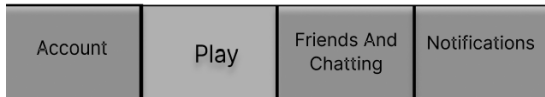
By Alex Norris

- **Account**- a user is brought After a successful login.
- **Navigation bar** - Now interactable, and users can switch between them.
- **Change Username** - allows a user to change their username.
- **Change Password** - Allows a user to change their Password
- **Change Email** - Allows a user to change their Email
- **Logout** - Signs the user out, taking them back to the Account Login Screen
- **Bio** - A self-written Bio by the user, visible to others when added as a friend.
- **User Photo** - An optional, self-uploaded photo that a user feels represents them the best.
- **USER ID** - The user's account Username will be displayed above the photo for a user to see which account they're logged in as.

Navigation Bar

By Alex Norris

- Floating Bar along the bottom of the screen allows users to switch between screens easily.
- **Account** - Account Tab
- **Play** - Play tab allowing users to play the game
- **Friends and Chatting** - tab allows users to talk amongst themselves, add friends, etc.
- **Notifications** - tab with notifications/updates.



Play Screen

By Alex Norris

- The screen that will display the game and allow a user to play.
- **Play** - Name of the tab
- **Game Name** - Name of the game (Currently Undecided)
- **Image of Game** - Contains an image to associate the game with
- **Play Button** - interactable button to allow the user to start the game
- **Rate Button** - Allows the user to rate the game
- **More Info** - More info is a tab containing things such as goals, game description, event data, update notes, rules, etc.
- **Average User Rating** - A bar showing the average user rating for the game
- **Navigation Bar** - Pinned to the bottom for easy navigation.

Friends and Chatting

Friends Manager

New Messages

Existing Messages Search:

Friend Convo 1

Friend Convo 2

Friend Convo 3

Friend Convo 4

Friend Convo

Account

Games

Friends And Chatting

Notifications

Friends and Chatting Screen

By Eli Eggers

- The screen displaying your received message creates new messages and adds friends.
- **Friends Manager** - Add new friends to the
- **New Messages** - This allows you to create new messages with friends you have not previously interacted with
- **Existing Messages Search** - Allows you to search usernames of friends you have already messaged
- **Friend Convo ...** - Allows you to tap on existing friend's Messages.

Friends and Chatting

Friends Manager

X

Search Username:

Friend

ADD

Account

Games

Friends And Chatting

Notifications

Friends Manager

By Eli Eggers

- The screen displaying how you will add friends after clicking Friends Manager
- **Search Username** - allows you to search for your friend's username
- **Friend** - Displays the username for confirmation that it is correct
- **ADD**- adds the user that is displayed
- **X** - when clicked, this returns you to the original friends and chat pages.

Friends and Chatting

X

New Messages

Existing Friend:

Message:

Account Games Friends And Chatting Notifications

New Messages

By Eli Eggers

- The screen displays how you will create a new message
- **Existing Friend** - Allows you to type the name of a username you have added
- **Message** - Allows you to order a message you want to send
- **Send** - end the message typed
- **X** - when clicked, this returns you to the original friends and chat pages.

Friends and Chatting

X

Friend 1:

Text box one of text

Text box two of text

Message: Send

Account Games Friends And Chatting Notifications

Conversation After Clicked One

By Eli Eggers

- The screen displays how you will view messages once click on the home friend and chatting page.
- **Friend 1** - This will display the username of the friend you are talking to.
- **Message** - Allows you to type a message you want to send
- **Send** - end the message typed
- **X** - when clicked, this returns you to the original friends and chat pages.

Notifications



Game Invite from
Friend #2



Message from
Friend #1



New Event
just dropped!



Account

Play

Friends and
Chatting

Notifications

Notifications



Game Invite from
Friend #2



Message from
Friend #1



New Event
just dropped!



Challenge your friends now
to a fun game with our new
special card.
Winner keeps it!

Create game



Account

Play

Friends and
Chatting

Notifications

Notifications

By Markus Roth

The Notifications contain all the news that could be important to the user, like:

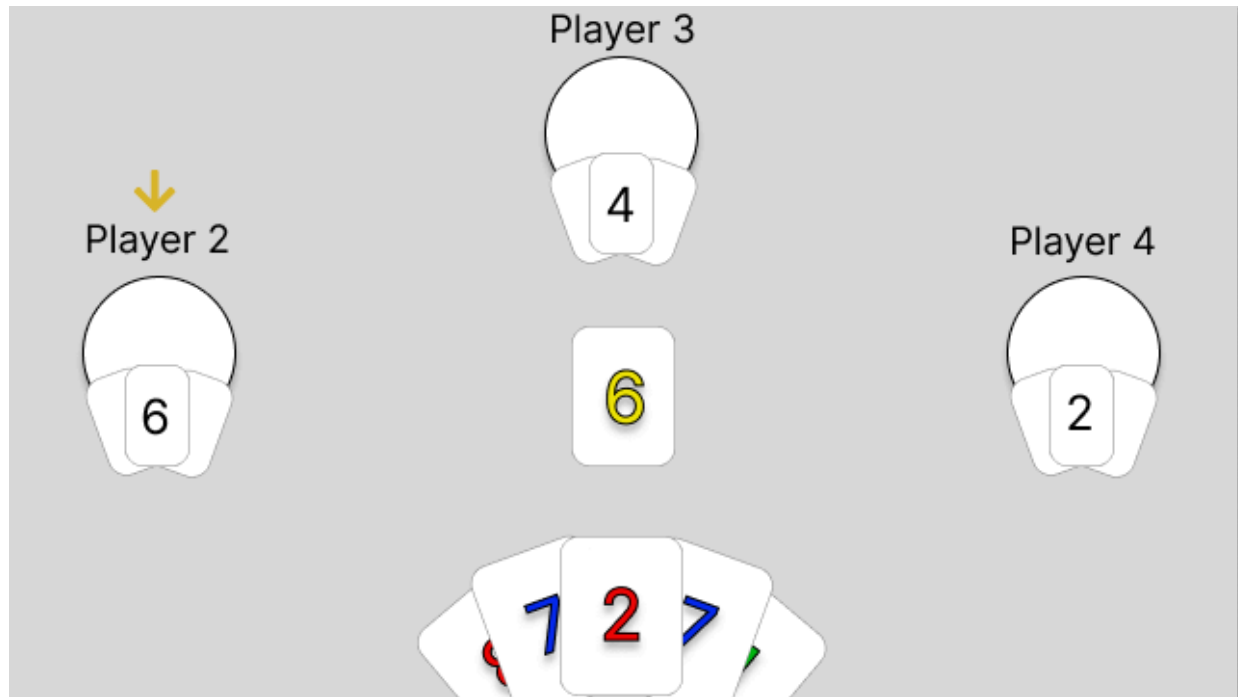
- **Engage with the Latest Events:** Be the first to know about new events. Our events are designed to elevate your gaming journey from limited-time challenges to exclusive rewards.
- **Game Invites from Friends:** Receive personal game invitations from your network. Accept the call to play and enjoy the Game with Friends experience alongside your closest companions.
- **App Updates:** Stay updated with the latest app enhancements. We're constantly improving your experience with new features and optimizations.
- **Messages Awaiting You:** Never miss a conversation. Get alerts for unread messages from friends, keeping your social interactions lively and up-to-date.

Some Notifications can be opened up to see what happened in more detail.

In this example, a new Event dropped that promises a reward to the player that wins the next game they join.

They also include a button to quickly interact with the source of the notification

Also, notifications can be deleted so
Users can keep a clean inbox.



Ingame-Screen

By Markus Roth

The in-game screen follows a simple design. The players are shown as heads containing their profile-picture and have their name hovering over it. An arrow shows whose turn it is. The last played card is shown in the middle of the field.

The player's hand is shown as single cards that can be moved into focus by selecting them with a finger.

The other player's hands are shown as 3 empty cards with the actual count of remaining cards in the middle.

Achievements List	
Achievements	
Achievement	Description
Achievement 1	
Achievement 2	
Achievement 3	
• • •	
Back	

Achievement List

By Zachary Sears

- This screen shows the list of unlockable achievements for special activities available to players.
- Stored in a separate list on the server
- Also provides rewards for unlocking each achievement, such as special cards
- The back button returns the user to the “Play Screen”

User Achievements	
Unlocked Achievements	
Achievement	✓
Achievement 1	
Achievement 2	
Achievement 3	
• • •	
Back	

User Unlocked Achievements Screen

By Zachary Sears

- A list of achievements unlocked by the user.
- Unlocked achievements are indicated by a checkmark.
- Locked achievements have no checkmark.
- The back button returns the user to the “Play Screen”.