

# **VirtuCards**

## **CS 30700 Sprint 3 Planning Document**



TEAM 8

June Seo

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## **Sprint Overview**

The goal of this sprint is to complete all the remaining user stories. The user stories focus on adding more quality of life features such as ability to censor chat, kick troublesome players and play music during a game session. We also plan to expand on the user preferences and add an image as an avatar for users. Additionally, we will expand on the social features by adding a Friends List and invitation features. Each feature would also have its own test case, similar to before.

**Scrum Master:** Kade Boltjes

**Meeting Plan:** Tuesday @ 3:00pm and Thursday @ 7:00pm

**Risks and Challenges:** During this sprint, we wish to focus on adding more optional functionalities that improve the player's experience. However, we may need to rewrite the implementations for game joining from the previous sprint to make our proposed user stories, with regards to invites and rejoining the game, possible. We also anticipate that bugs may arise from integrating various sections together, and plan to devote an ample amount of time towards bug removal in our sprint. There are also new sections during this sprint for music playback, which we anticipate to be a challenge.

## Current Sprint Detail

### User Story #1

As a user hosting the game, I would also like the option to invite my friends to join my game.

#	Description	Estimated Time	Owner
1	Add an invite player button in the waiting screen	1 hour	Ryan
2	When the invite player button is pressed, a panel appears. This panel lists all the user's friends with buttons to invite each one individually. Additionally a button labeled "Invite All" is placed at the top of the panel to invite all the friends.	3 hours	Ryan
3	When a specific player is chosen to invite, send a message to them allowing them to join the game unless they are already in the waiting room of the game.	3 hours	Ryan
4	On clicking the "Invite All" button, send an invite to all the players in the host's friends list that are online.	1 hour	Ryan
5	Create a test case to show that the option to invite friends is implemented correctly	1 hour	Ryan

### Acceptance Criteria

- Given that the host has friends on their playlist, there is a button to invite all of their friends to the game on the waiting screen of the game
- Given that a player who is friends with the host is already in the lobby, when the host invites their friends, they will not see an invitation notification
- Given that a player has specific friends they want to invite, there is a way to invite specific friends on their list that aren't currently in the lobby.

### User Story #2

As a user hosting the game, I would like to have the option to play another game with the same players at the end of a game.

#	Description	Estimated Time	Owner
1	Create a panel that shows to play again button after the game ends	1 hour	Ryan
2	When the play again button is clicked all of the game info is reset (cards, score etc)	2 hours	Ryan
3	When the host clicks the create new game button the clients are automatically put into the new game	2 hours	Ryan

4	Create a test case that verifies the host can play again	1 hour	Ryan
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#### Acceptance Criteria

- Given that a game has completed, the users and the host remain in the same game room.
- Given that the host decides to start a new game, there is a button available called “Play Again”
- Given that the user decides to keep playing, their score and hand are reset when the new game begins.
- Given that the host has pressed “Play Again”, the host can decide when the new game begins by pressing a button.
- Given that the host decides to keep playing, the new game is the same game that was played.

#### **User Story #3**

As a user hosting the game, I would like to have songs being played from a queue from the common external screen.

#	Description	Estimated Time	Owner
1	Add a music button on the host game screen, which opens a panel on the side displaying the currently playing song and the songs in the queue.	4 hours	Aryan
2	Add a button to pause music playback in the music panel and to trigger music playback, also functionality.	3 hours	Kade
3	Add UI for a Skip Song button.	1 hour	Kade
4	Implement the Skip Song button’s functionality to skip the song currently playing.	3 hours	Aryan
5	Once a song has finished playing, remove it from the queue and start playing the next one.	2 hours	Kade
6	Create a test case that ensures that a song can be played from the queue.	1 hour	Kade

#### Acceptance Criteria

- Given that a user has queued a song from the client, the host displays that song.
- Given that two users queue songs from their clients, the host will play the first one queued.
- Given that a song has finished playing, the host removes that song from the front of the queue and starts playing the next one in line.
- Given that there are no songs queued, the host does not play anything.

#### User Story #4

As a user hosting the game, I would like to be able to remove songs from the queue played by the shared screen.

#	Description	Estimated Time	Owner
1	Add a remove button for each song in the queue	1 hour	Kade
2	Add a method to remove the song in the queue	2 hours	Kade
3	If the song being removed is currently playing, skip to the next song	1 hour	Kade
4	Add a 'Clear Queue' button	1 hour	Kade
5	Implement the functionality for the 'Clear Queue' button.	1 hour	Kade
6	Add a test case to test whether a song can be removed from the queue.	1 hour	Aryan

#### Acceptance Criteria

- Given that the host has created a game and clients have joined it, when clients add songs to the playlist, the host can click a cross arrow next to any of them to remove them from the playlist.
- Given that the clients have added songs to the playlist, when the host clicks remove on a song that is currently playing, the playback skips to the next song
- Given that the clients have added songs to the playlist, when the host removes a song from the playlist that is not playing, it is reflected on the screen, with the tracks in the list below it moving up.
- Given that the clients have added songs to the playlist, when the host clicks clear all, playback is stopped and all the songs are removed from the queue.

#### User Story #5

As a user hosting the game, I would like to be able to shuffle the songs currently in the queue if time allows.

#	Description	Estimated Time	Owner
1	Add a shuffle button to the playlist panel	1 hour	Aryan
2	Reorder the queue to reflect the new order of songs playing back.	2 hours	Aryan
3	When the shuffle button is pressed, start playing the new song at the front of the queue	2 hours	Aryan

4	Add a test case to ensure that the songs in the list can be shuffled.	1 hour	Aryan
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#### Acceptance Criteria:

- Given that the clients have added songs to the playlist, when the host is managing the music playlist, the host is prompted with a shuffle icon (crossed arrows).
- Given that the clients have added songs to the playlist, when the host clicks the shuffle button, the songs are played in a random order.
- Given that the host has clicked the shuffle button, when the playlist is playing in shuffled order, there is a visual indicator on the host screen indicating that shuffle mode is on.

#### **User Story #6**

As a user hosting the game, I would like to choose custom backgrounds for the table.

#	Description	Estimated Time	Owner
1	Add a 'Change Background' button.	1 hour	Shayne
2	Add a 'Default Background' button	1 hour	Shayne
3	Add an open file dialog that appears when the 'Change Background' button is pressed that can only select pictures	3 hours	Shayne
4	Display the new selected background in the Game Screen	2 hours	Shayne
5	Add a test case that verifies the background can be changed.	1 hour	Shayne

#### Acceptance Criteria:

- Given that the host has launched the game, when they open the settings page, there is an open file dialog in the settings to change the background.
- Given that the host has launched the game, when they open the settings page, they can go back to the default background.
- Given that the host has selected a background, when they start the game, the background of the game screen matches their selection.

#### **User Story #7**

As a user, I would like to select an avatar from a given list to represent me.

#	Description	Estimated Time	Owner
1	Create 5 avatars to be selected from	3 hours	Umang
2	Create a 'Choose Avatar' button, opening	2 hours	Umang

	a choose avatar panel upon click. Also display the avatars to choose from.		
3	Implement the functionality for the 'Choose Avatar' button. This includes showing it on their profile screen.	3 hours	Umang
4	Store the user's avatar selection on Firebase	2 hours	Umang
5	In the host game screen, the new avatar is displayed for the User.	2 hours	Umang
6	Create a test case that checks a player can select their avatar.	1 hour	Umang

#### Acceptance Criteria

- Given that a user wishes to change their avatar, they are able to do so via a button on the Edit Screen.
- Given that the user has pressed the required button, they are shown a list of available avatars to choose from.
- Given that a user selects a new avatar, their profile data is updated to reflect their avatar choice.
- Given that a user plays a game, their avatar is visible across the UI.
- Given that a user decides not to change their avatar, they are assigned the default avatar.

#### **User Story #8**

As a user, I would like to upload a custom photo as my avatar.

#	Description	Estimated Time	Owner
1	In the Choose Avatar panel, add a button to open an image stored on the device	3 hours	Umang
2	Implement the same functionality as selecting a preset avatar.	1 hour	Umang
3	Store the user's avatar selection on Firebase	2 hour	Umang
4	Create a test case that checks a player can upload a custom photo as their avatar	1 hour	Umang

#### Acceptance Criteria

- Given that the user has a valid account (not an anonymous player) there is an option in the profile page to upload a custom image for their avatar
- Given that the user selects an image that is not the correct dimensions, it is resized to fit the avatar picture size in the VirtuCards applications
- Given that the user uploads an image on the profile screen, the data is properly updated and stored in Firebase
- Given that a user plays a game, their avatar is visible across the UI

### User Story #9

As a user, I would like to have my avatar and other details linked to my account, allowing me to sign in to different devices with the same account.

#	Description	Estimated Time	Owner
1	Update Firebase with profile settings and selected avatar.	1 hour	Umang
2	Add functionality to import user preferences from Firebase when logging into VirtuCards.	1 hour	Umang
3	Create a test case to ensure that when a player changes their avatar on one device, it will be edited if the user logs in from a different device.	1 hour	Umang

### Acceptance Criteria

- Given that a user has created an account and uploaded a custom avatar, their profile settings are saved on firebase.
- Given that a user has signed in to a new device, their correct profile settings are all present.
- Given that a user has signed out and resigns in on that same device, their profile settings are all correct.

### User Story #10

As a user, I would like to search for my friends on VirtuCards with their usernames.

#	Description	Estimated Time	Owner
1	Add a search bar in the Friends screen.	1 hour	June
2	When the user types in the search bar, a list appears showing all the usernames that match	3 hours	June
3	Add a button to add the selected	1 hour	June



	username as a friend		
4	Update the user's friends list in Firebase	2 hours	June
5	Create an error message for non-existent username	2 hours	June
6	Add a test case that verifies if users can search for their friends.	1 hour	June

#### Acceptance Criteria

- Given that the user would like to search for their friends, they are able to do so by clicking the Friends button.
- Given that the user clicks the button, they are shown a search bar where a username can be typed in.
- Given that the user enters a username or part of a username, they are shown the closest matches present in the database of users.
- Given that the user enters an invalid username or a username that is not present in the database, they are shown a message indicating that there were no matches found.
- Given that the user has found a matching username, they are able to view the players game statistics and other information.

#### **User Story #11**

As a user, I would like to be able to accept invites from a game host to join their game.

#	Description	Estimated Time	Owner
1	Connect Host and Client to Photon "Waiting Room" chat upon joining lobby	2 hours	Aryan
2	Receive an event from the Client receives an invite from the Waiting Room chat	2 hours	Ryan
3	A notification panel is displayed with the host name, room name, and options to accept and decline.	3 hours	Aryan
3	When a client accepts the game invite, they are brought into the correct waiting room and leave the Waiting Room chat.	2.5 hours	Ryan
4	When a client rejects the game invite, the invite is disposed of.	1 hour	Aryan
5	Create a test case to ensure that a client can accept a host's invite to their game.	1 hour	Ryan

#### Acceptance Criteria:

- Given that a user is in the join room screen, when a user accepts the game invite, the user will be moved to the waiting room of the invite sender.
- Given that a user is in the join room screen, when a user rejects the game invite, the user will not be moved anywhere.
- Given that a user is in a waiting room of the game already, when a user gets a game invite, it will not show up on the user's screen.

#### **User Story #12**

As a user, I would like to be able to fold my hand.

#	Description	Estimated Time	Owner
1	Add a fold hand button in the game settings on the client.	1 hour	Shayne
2	Only show the button for games that allow hand folding like freeplay.	2 hours	Shayne
3	When the fold hand button is pressed, implement the functionality. For example, remove that player from the game logic (don't make it their turn or give them any cards)	3 hours	Shayne
4	Create a test case that ensures that player is able to fold their hand	1 hour	Shayne

#### Acceptance Criteria

- Given that the gamemode allows it, there should be a "Fold" button on the client screen
- Given that the gamemode allows, the "Fold" button should only be available when it is their turn and they are in a phase of the game that allows folding their cards
- Given that the user is allowed to hit the "Fold" button, their cards should be properly taken off of their screen but not put back into the deck
- Given that the round of the game is over, everyone who folded their cards should have the cards returned to the deck properly.

#### **User Story #13**

As a user, I would like to be able to see the number of games I have won and lost.

#	Description	Estimated Time	Owner
1	Add a display for the the number of games won and lost	1 hour	Kade

2	Make sure the display is up to date with the latest data stored in the database	1 hour	Aryan
3	Wins and losses are updated with each game played	1 hour	Aryan
4	Create a test case that checks if the profile data is being updated	1 hour	June

#### Acceptance Criteria

- Given that the user enters the profile screen, their wins and losses are displayed.
- Given that the user loses a game, their losses are incremented.
- Given that the user wins a game, their wins are incremented.

#### **User Story #14**

As a user, I would like to have the option of censoring profanity in the chat.

#	Description	Estimated Time	Owner
1	Add a 'Censor Profanity' toggle in the settings panel	1 hour	Umang
2	Add a list of profanity that shouldn't be sent.	2 hour	June
3	Create a warning message for users that use profanity in the chat	2 hours	Umang
4	Create a method that scans for profanity in the sent chat message after "Send" is pressed.	3 hours	June
5	Create a test case that ensures that profanity is filtered.	1 hour	June

#### Acceptance Criteria

- Given that a host has created the game, when a user opens the settings panel, they can toggle profanity.
- Given that a user has the chat open, when a user sends profanity in the chat, the message will not be sent to others.
- Given that a user has the chat open, when a user sends a profanity in the chat, the (host) will give the user a warning.

### User Story #15

As a user, I would like to have default animated reactions I can use, like “Boiler Up!”, if time allows.

#	Description	Estimated Time	Owner
1	Create 2 animated reactions	3 hours	June
2	Create buttons to send the reactions to other users	1 hour	June
4	Add music in the background after the button as been pressed	2.5 hours	June
5	Add a cooldown before the reaction can be sent again	2.5 hours	June
6	Implement a signal that sends from one client to every other client in the game	2 hour	June
7	Create a test case that ensures the different reactions are sent and displayed correctly.	1 hour	June

### Acceptance Criteria

- Given that a user is in an active game, when the user hides the chat, they will be able to see a button that says “Boiler up!”
- Given that a user is in an active game, when the user presses the “Boiler up!” button, an animation will pop up on every player’s screen.
- Given that a user is in an active game, when a user presses the “Boiler up!” button, the button will need a cool down until it can be pressed again.
- Given that a user is in an active game, when a user presses the “Boiler up!” button, the sound of the Purdue marching band will play.

### User Story #16

As a user, I would like to be able to see where I stand compared to my peers.

#	Description	Estimated Time	Owner
1	Add a ‘Leaderboard’ button to the Profile page	1 hour	Kade
2	Add UI for a Leaderboard page	2 hours	Kade
3	Retrieve each friend’s statistics from Firebase	2 hours	Kade

4	Display the ranking of users in a list box, sorted by wins, losses, or games played.	3 hours	Kade
5	Create a test case that verifies the leaderboard works properly	1 hour	Kade

#### Acceptance Criteria

- Given that a user has an account that is not anonymous, there is a “leaderboard” button on the client landing page
- Given that the user has friends on their friends list, they can see all of the players on their friend’s list that sorts the players with the most wins at the top.
- Given that the user hits a button, they can sort by most games played or most games lost as well

#### **User Story #17**

As a user, I would like to choose a custom card sleeve/back for my group or myself.

#	Description	Estimated Time	Owner
1	Add a ‘Change Card Sleeve/Back’ button.	1 hour	Shayne
2	Add a ‘Default Card Sleeve/Back’ button	1 hour	Shayne
3	Add an open file dialog that appears when the ‘Change Card Sleeve/Back’ button is pressed that can only select pictures	2 hours	Shayne
4	Display the new selected Card Sleeve/Back when cards are flipped over.	2 hours	Shayne
5	Add a test case that verifies the card sleeve can be changed.	1 hour	Shayne

#### Acceptance Criteria

- Given that the host has launched the game, when they open the settings page, they can select a card sleeve for all users to see while playing the game. This card back is shown on the common screen.
- Given that the client has launched the game, when they open the settings page, they can select a card sleeve for their cards while playing the game. This card back is visible in their game, but not for others.

- Given that the host has selected a custom card back, when they open the settings page, they can click the “Reset Card Sleeve” button to revert back to the original card back from the game.
- Given that the client has selected a custom card back, when they open the settings page, they can click the “Reset Card Sleeve” button to revert back to the original card back from the game.

### User Story #18

As a user, I would like to add songs to the queue played by the shared screen.

#	Description	Estimated Time	Owner
1	Check if the message sent by the client matches the “!play <song_name>” format, if so, redirect the message only to the host.	2 hours	Aryan
2	On the host, search the song specified by the user on Youtube and add the best match.	5 hours	Kade
3	Check if the song specified is able to be found and display an error accordingly if not.	3 hours	Aryan
4	Update the host’s queue UI to include the newly added song	1 hour	Kade
5	Ensure the displayed song queue is in order of insertion	1 hour	Kade
6	Send a notification on the client that a song has been add	2 hours	Aryan
7	Create test cases that ensure songs are added to the queue when players add more songs.	1 hour	Aryan

### Acceptance Criteria

- Given that the client has joined a room, when the host starts the game, the client can add songs to the queue by sending the command “!play <song\_name>” in the chat.
- Given that the client has joined a room, when the client adds songs to the queue by sending the command “!play <song\_name>” in the chat, it is not displayed to other users. A notification window instead appears on the host and client stating a song has been added by a client.
- Given that the client has searched for a song, when the client selects a valid song, it appears on the host queue and will be played after the songs preceding it.

### User Story #19

As a user, I would like sound effects when an action happens on the screen.

#	Description	Estimated Time	Owner
1	Create or choose sound effects for the different actions	2 hours	Umang
2	Add script components that play the required sounds when the action is performed.	2 hours	Umang
3	Create a test case that ensures that the sound effects occur in sync with the game actions.	1 hour	June

#### Acceptance Criteria

- Given that the host begins a game, there is a sound effect across all the devices of all the players in the room.
- Given that a user plays a card, there is a sound effect to accompany the action.
- Given that a user sends a message, there is a sound effect to accompany the action.
- Given that a user receives a private message, there is a sound effect played.
- Given that a user wins a game, there is a sound effect played.

### User Story #20

As a user, I would like haptic feedback when it is my turn to play or I make an illegal move.

#	Description	Estimated Time	Owner
1	Implement the haptic feedback functionality of an appropriate strength and duration.	3 hours	Shayne
2	Make a method to create some haptic feedback	1 hour	Shayne
3	Add script components that generate haptic feedback through the method when required.	2 hours	Shayne
4	Create a test case that ensures that the haptic feedback is triggered correctly.	1 hour	Shayne

#### Acceptance Criteria

- Given that a user is in an active game, when it is a user's turn, there will be a small vibration to let the user know that it is his/her turn.

- Given that a user is in an active game, when the user plays an invalid move, there will be a larger vibration to let the user know that it is not a legal move.
- Given that a user is in an active game, when the user presses a disabled button, there will be a vibration to let the user know that the user cannot play.

### User Story #21

I would like to be able to kick players from the game when necessary.

#	Description	Estimated Time	Owner
1	Create a kick player button	1 hour	Ryan
2	Add a drop-down to select players from.	2 hours	Ryan
3	Upon selecting a player to kick, Raise an event notifying the player they have been kicked.	2 hours	Ryan
4	Create a panel that shows that a player has been kicked from the client side	2 hours	Ryan
5	Send the player to the Join Game page.	2 hours	Ryan
6	Create a test case to ensure that a player is kicked from the game when necessary.	1 hour	Ryan

### Acceptance Criteria

- Given that a host has started a game, they are able to view a button to a kick a user
- Given that the host has pressed the button, they are able to view a list of available users.<sup>9</sup>
- Given that a user has been kicked by the host, the user is treated like they have left the game. For example, cards are added back to the deck, etc.



## Remaining Backlog

### Functional Requirements

#### 1. Game Host

As a user hosting the game,

~~I would like to be able to create a game lobby on my laptop/desktop as a common external screen, acting as a table.~~

~~I would like to create a game lobby easily.~~

~~I would like to be able to allow my friends to join my game using a generated join code.~~

~~I would also like the option to invite my friends to join my game.~~

~~I would like to have the cards played by the game players on their mobile appear on the shared screen.~~

~~I would like to have the option to play another game with the same players at the end of a game.~~

~~I would like to have the option to play games with rules, like Go Fish.~~

~~I would like to have the option to play games whose rules aren't in the library of VirtuCards.~~

~~I would like to declare a winner for games whose rules aren't in the library of VirtuCards.~~

~~I would like to be able to choose my preferred game easily.~~

~~I would like to be able to kick players from the game, when necessary.~~

~~I would like to be able to mute the chat if needed.~~

~~I would like to have songs being played from a queue from the common external screen if time allows.~~

~~I would like to be able to remove songs from the queue played by the shared screen if time allows.~~

~~I would like to be able to shuffle the songs currently in the queue if time allows.~~

~~I would like to be able to set a timer for each player to play their move.~~

~~I would like to choose custom backgrounds for the table.~~

~~I would like to be able to join the game lobby through my phone as a game player.~~

~~I would like to be able to shuffle the deck of cards easily.~~

#### 2. Account Management

As a user,

~~I would like to be able to register for an account for VirtuCards.~~

~~I would like to be able to login into my account for VirtuCards.~~

~~I would like to reset my password, in the event I forget.~~

~~I would like to login with my Google account.~~

~~I would like to login with my Facebook account if time allows.~~

~~I would like the option to play as a guest, not having to make an account.~~

~~I would like to select an avatar from a given list to represent me~~

~~I would like to upload a custom photo as my avatar~~

~~I would like to have my avatar and other details linked to my account, allowing me to sign in to different devices with the same account~~

~~I would like to be able to change my username.~~

~~I would like to search for my friends on VirtuCards with their usernames.~~

### 3. Gameplay

As a user,

~~I would like to join the game host's common screen on my mobile device through the join code the host provides.~~

~~I would like to view the actions of other players in real-time and without any delay.~~

~~I would like to be able to accept invites from a game host to join their game.~~

~~I would like to view the cards that I have been dealt at the beginning of the round from my mobile device.~~

~~I would like to play the cards I have been dealt with on the table, from my mobile device.~~

~~I would like to draw cards from the table using my mobile device.~~

~~I would like to be able to pass my turn.~~

~~I would like to be able to fold my hand.~~

~~I would like to be able to see the number of games I have won and lost if time allows.~~

~~I would like for the cards held by each player to be visible on the shared screen, hidden face down.~~

### 4. Messaging

As a user,

~~I would like to be able to send and receive private messages to others in the same game lobby.~~

~~I would like to be able to send public messages to the game lobby.~~

~~I would like to be able to view public messages on the common screen shared between players.~~

~~I would like to use a default messaging system to say something very fast.~~

~~I would like to have the option of censoring profanity in the chat~~

~~I would like to have default animated reactions I can use, like "Boiler Up!", if time allows.~~

~~I would like to be able to disable the chat option, if it may be detrimental to the game experience~~

### 5. Social Interactions

As a user,

~~I would like to have an indication of a winner, allowing us to end a game.~~

~~I would like to have the games I play have the rules related to the game enforced, ensuring only legal moves are allowed.~~

~~I would like to be able to see where I stand compared to my peers if time allows.~~

~~I would like to choose a custom card sleeve for my group or myself.~~

~~I would like to listen to the lobby's song playlist if time allows.~~

~~I would like to add songs to the queue played by the shared screen if time allows.~~

~~I would like to be able to hide my cards on my mobile device if I need to set my device in view of other players if time allows.~~

## 6. Miscellaneous

As a user,

As a game player on Android, I would like to have achievements unlocked on Google Play Games for certain milestones if time allows.

As a game player on iOS, I would like to have achievements unlocked on Game Center for certain milestones if time allows.

~~I would like to be able to change game settings easily.~~

~~I would like to be able to exit a game without disrupting the flow of play.~~

~~I would like sound effects when an action happens on the screen if time allows.~~

~~I would like haptic feedback when it is my turn to play or I make an illegal move.~~

## Non-Functional Requirements

- **Security:**

As a developer,

- I would like to set up a secure Google Firebase authentication system to allow users to register and sign in using their email and password.
- I would like to set up alternative ways of signing in without passwords, such as Google, Facebook, and Apple accounts.
- I would like to ensure the only identification players can see regarding other players is their username and avatar.

- **Response Time**

As a user,

- I would like to be able to cycle through my cards with no visible lag.
- I would like my actions on my client game to appear on the host's screen in less than 500 ms.
- I would like the game to take less than 5 seconds to start on my mobile device.

- **Usability**

As a user,

- I would like the game to be easy to navigate.
- I would like the acts of playing and drawing cards to be simple.
- I would like all the options that I can perform visible in an uncluttered manner

- **Hosting/Development**

As a developer,

- I would like to use Unity to develop both the client-side and server-side.
- I would like to have the client-side and server-side developed as independently as possible to reduce dependency conflicts.
- I would like the game to be deployed to both Android and iOS if time allows.
- I would like to use Firebase's Realtime Database to store related information for each user such as their username, account avatar, list of friends, games played, games won and games lost, and a unique ID for that player.