

Cards Against Society

Milestone 2

SW Engineering CSC648/848 Spring 2019

Section 4

Team 203

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1. Data Definitions V2

Unregistered User : A user who does not have an account or is not currently logged in. They are limited to only view on-going Game Rooms and the public chat on the application.

Registered User : A user who has an account and is currently logged in. These users have full access to all the functions the application will have. They can participate in public or private games, add friends, chat in public chat, view their “My Games” page, and host games.

Host : A user who creates and has control of a game room. The host initializes a room based on their choice of points to win, public or private match (whether the room will be listed as “open” on the lobby screen”, and the amount of players that may join the room. The host will also have access to and ability to change the current game’s setting: points to win, room size limit, private or public, and remove players from the room.

Lobby : The homepage for all registered users. The Lobby page will display all “Open” listed Game Rooms, along with the amount of current players in the room, points needed to win, and Game Room name. Next to the Game Room list, a Public Chat will be displayed and show all on going communication from other users on the Lobby screen. The Lobby will also display online friends on a separate tab of the Public Chat.

Game Room : A Game Room is a room created by a Registered User that becomes the Host of the current Game Room. The Game Room exists as a play space environment for the Registered Users, where the Host can start a game and a set number of cards are distributed to each player in the room. Inside exists a Game Room chat that only players in the Game Room can see, the player’s cards displayed for them – yet hidden from the other players, and the scoreboard and current Black Card holder.

“My Games” Page : Each user gets a specific “My Games” Page which will display all current on-going games the user is participating in. The user can view and rejoin any of the games displayed as long as the Game Room has not ended.

Chat : A chatting mechanism for all users to send messages in either a global or private room chat. This chat has little filter on what users may say.

2. Functional Requirements V2

★ Priority 1

- Unregistered Users
 - Shall be able to create a new account
 - Shall be able to view the lobby
 - Shall not be able to join a game
- Registered Users
 - Shall be able to log into their account
 - Shall be able to log out of their account
 - Shall be able to view all active games in the lobby
 - Shall be able to join games
 - Shall be able to create new games
 - Shall be able to come back to a game at any time
 - Shall be able to create custom cards
- Hosts
 - Shall be able to set game rules on room creation
 - Shall be able to kick out users from a game room
 - Shall be able to edit game rules in game for next round
 - Shall be able to start a new round
- Lobby
 - Shall display all open games and its Room Name and the number of players in the room
- “My Games” Page
 - Shall display all current active games for the logged in user
- Game Rooms
 - Shall display user’s cards
 - Shall display a private room chat
 - Shall display timer for player to submit a play
 - Shall show relevant game information to the player

★ Priority 2

- Unregistered Users
 - Shall not be able to add another user as a friend
 - Shall be able to spectate an on-going match
- Registered Users
 - Shall be able to send messages through the chat
 - Shall be able to participate in any amount of games concurrently
 - Shall be able to go back and forth between each game
 - Shall be able to add another user as a friend
 - Shall be able to delete friend
 - Shall be able to see profile settings
- Lobby
 - Shall display a public chat
 - Users can access their account settings
- “My Games” Page
 - Shall allow the user to leave a game room
- Game Room
 - Shall have a AFK option for player who needs a timeout
 - Users can invite friends to the current Game Room
- Chat
 - Users can chat globally with random users
- Custom Cards
 - Users shall be able to vote for card decks
 - Users shall be able to create new decks
 - Users shall be able to edit decks

★ Priority 3

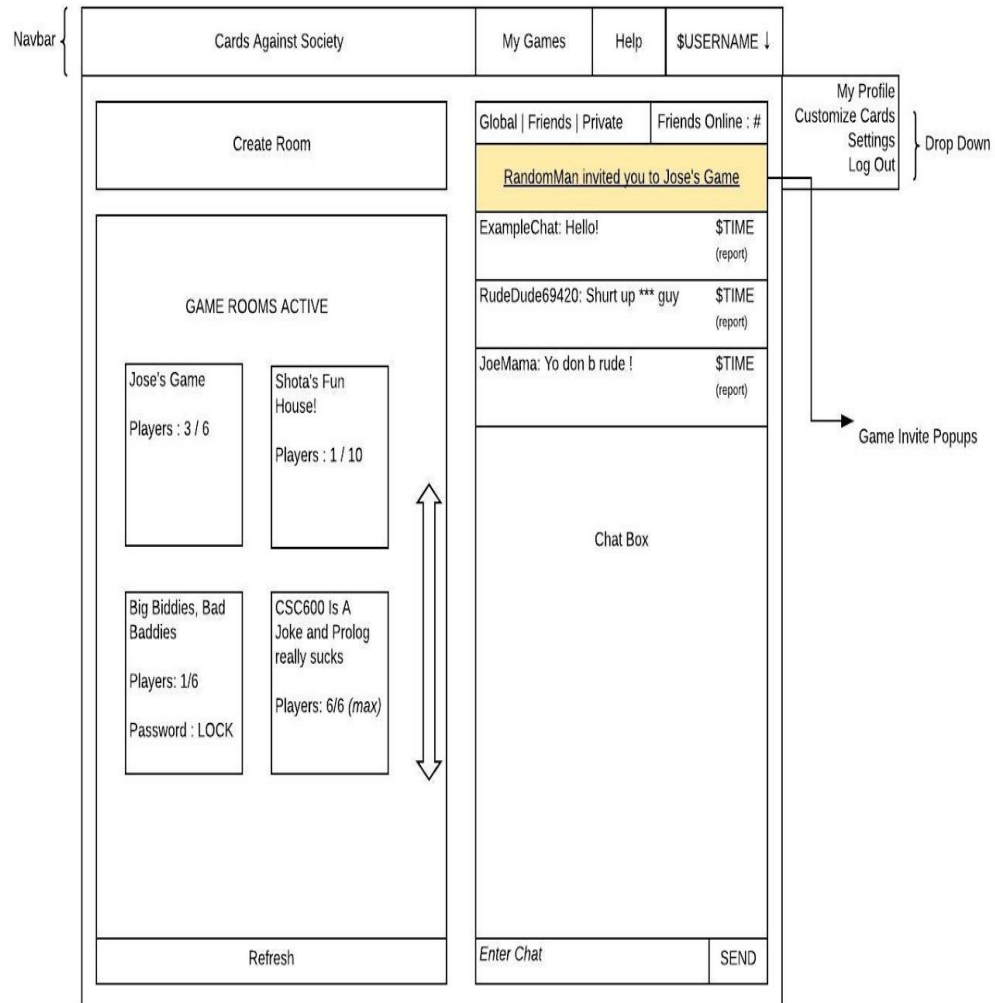
- Registered User
 - Shall be able to report users
 - Shall be able to create a profile
 - Shall be able to view friends' profiles
- “My Games” page
 - Shall display rooms that friends are in
 - Shall display friends currently online
 - Shall display number of players in rooms
- Custom Cards
 - Users shall be able to use set popular decks

3. UI Mockups and Storyboards

Non-Logged In Homepage

Cards Against Society		LOGIN
		REGISTER
Amount of Game's going on		
<div>GAME ROOMS ACTIVE</div> <div><div>Jose's Game</div><div>Shota's Fun House!</div><div>Big Biddies, Bad Baddies</div><div>CSC600 Is A Joke</div><div>Prolog sucks!</div></div>		<div>Description of Cards Against Society</div> <div>Global Chat</div>

Logged In Lobby



Help

Cards Against Society

Help

Login!

How to Play

FAQ

Question and Answer not found? Ask Public Chat or Submit a Ticket

About Us

Not one fixed size. Can
continue to lower screen

Log in / Sign up

Cards Against Society	Help	Login!
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Login
Enter your information

Username : [input field]

Password : [input field]

Remember me

Forgot Password / Username

Log In [button]

No Account? [Sign up here]

Log in / Sign up

Cards Against Society	Help	Login!
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Valid username input / check

Password input

Check matching passwords

Agree to Terms of Service

Accept

Create Room

Cards Against Society	My Games	Help	\$USERNAME
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Setup Room

Room Name:

Private ☐

Game Rules

Points to win:

Room Size:

Custom Card Deck:

Create Room

Profile

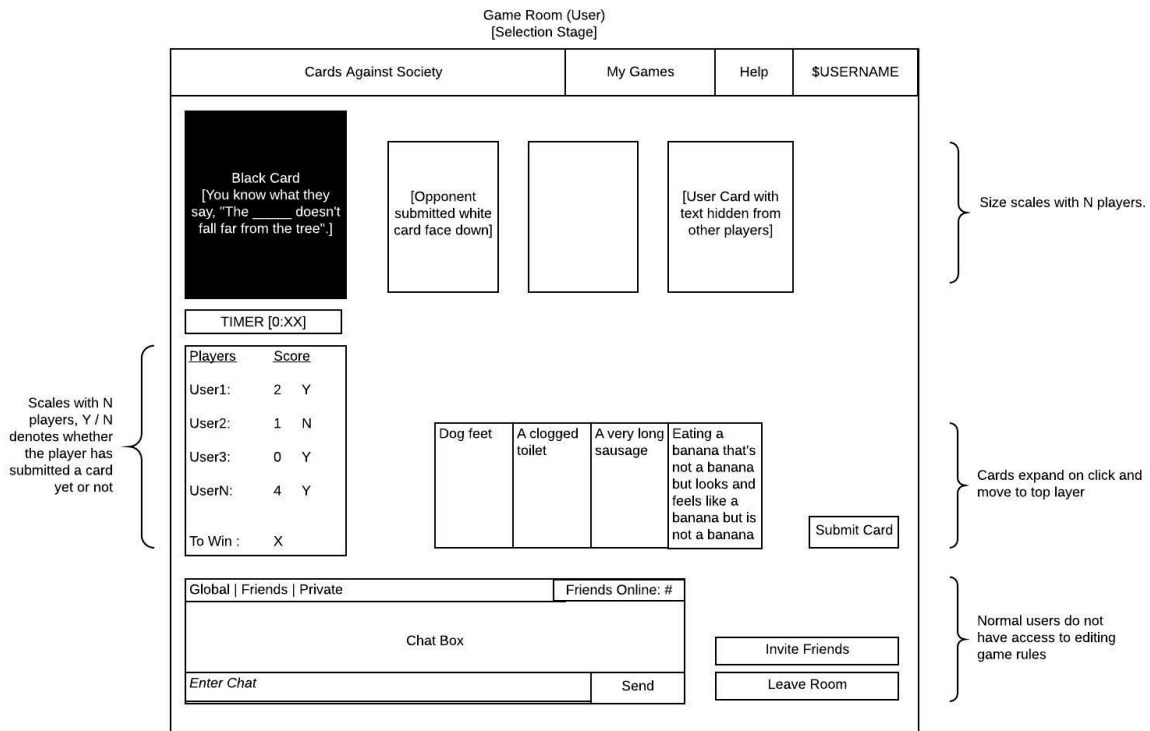
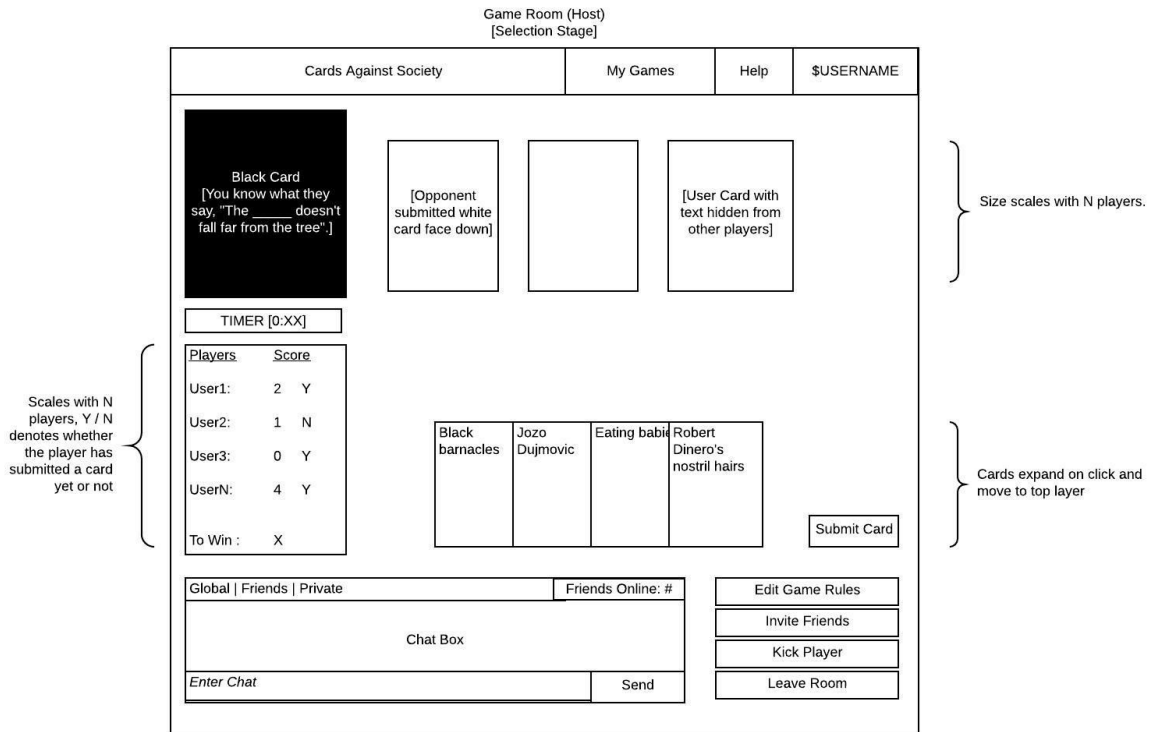
Cards Against Society	My Games	Help	\$USERNAME
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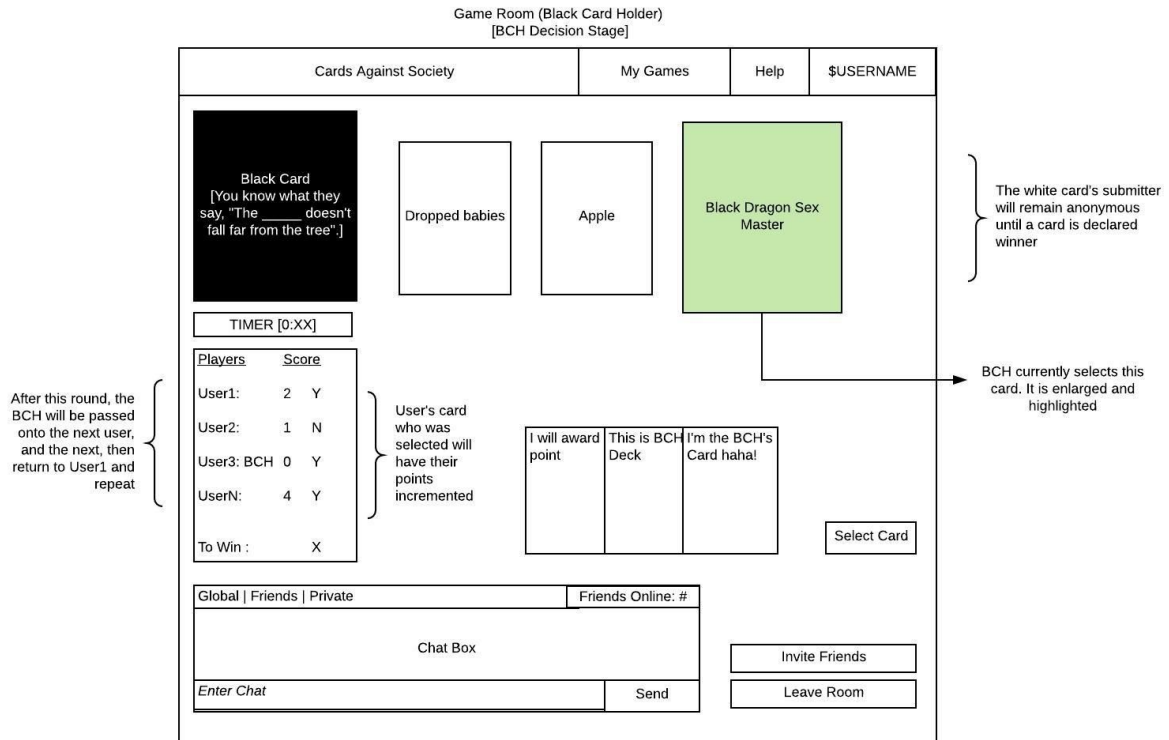
Profile

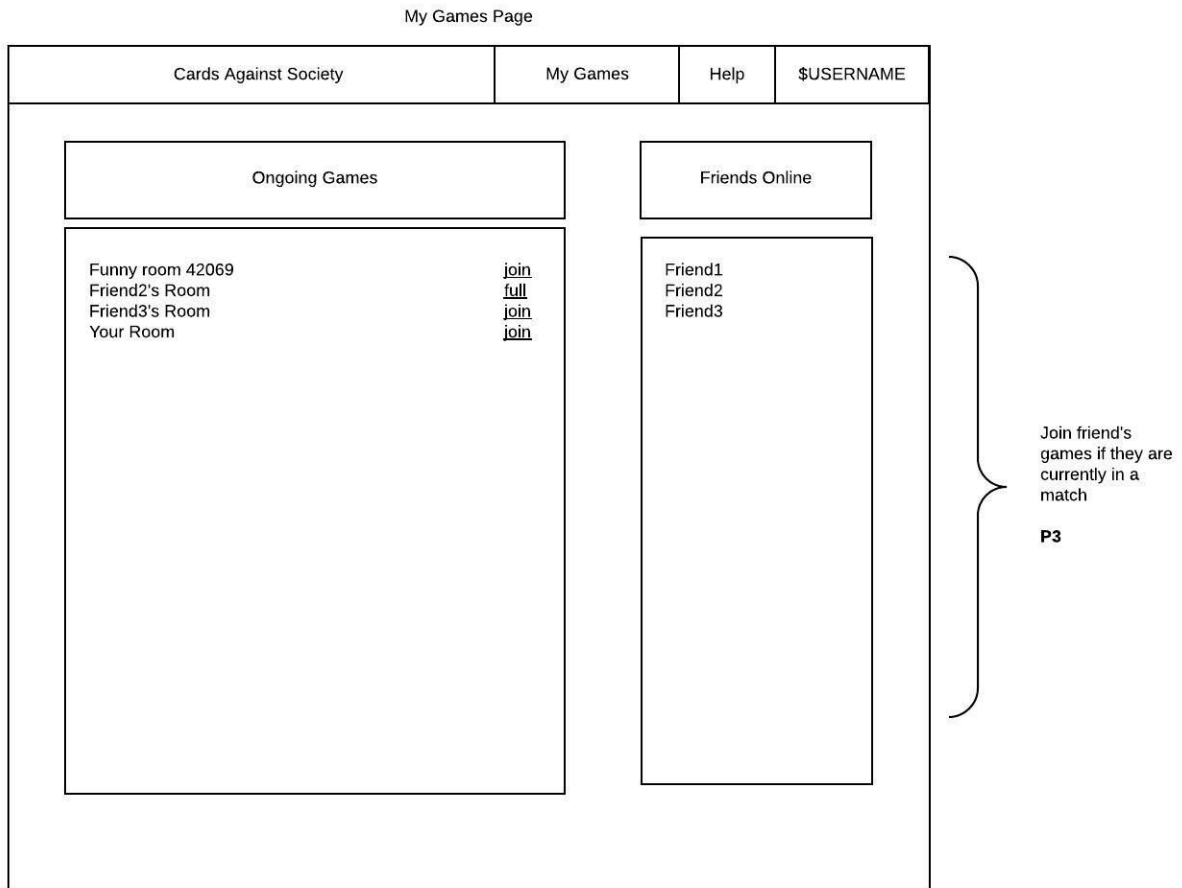
Username

Password

Email



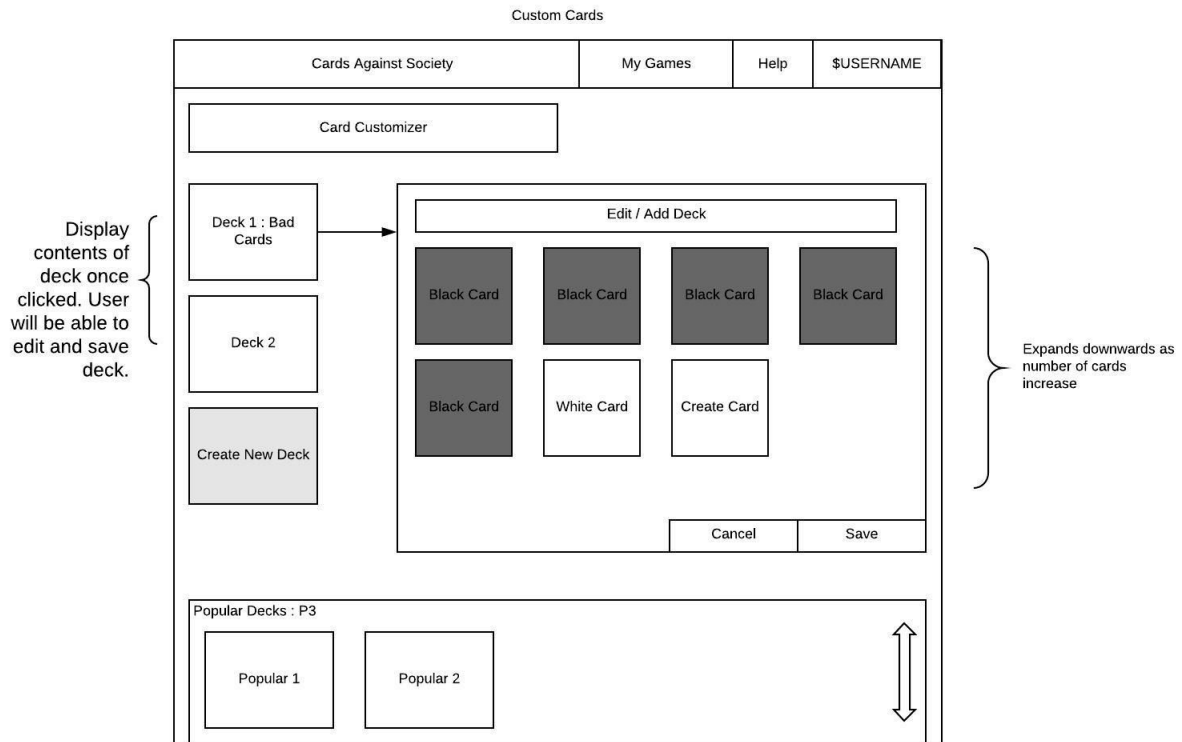




}

Join friend's games if they are currently in a match

P3



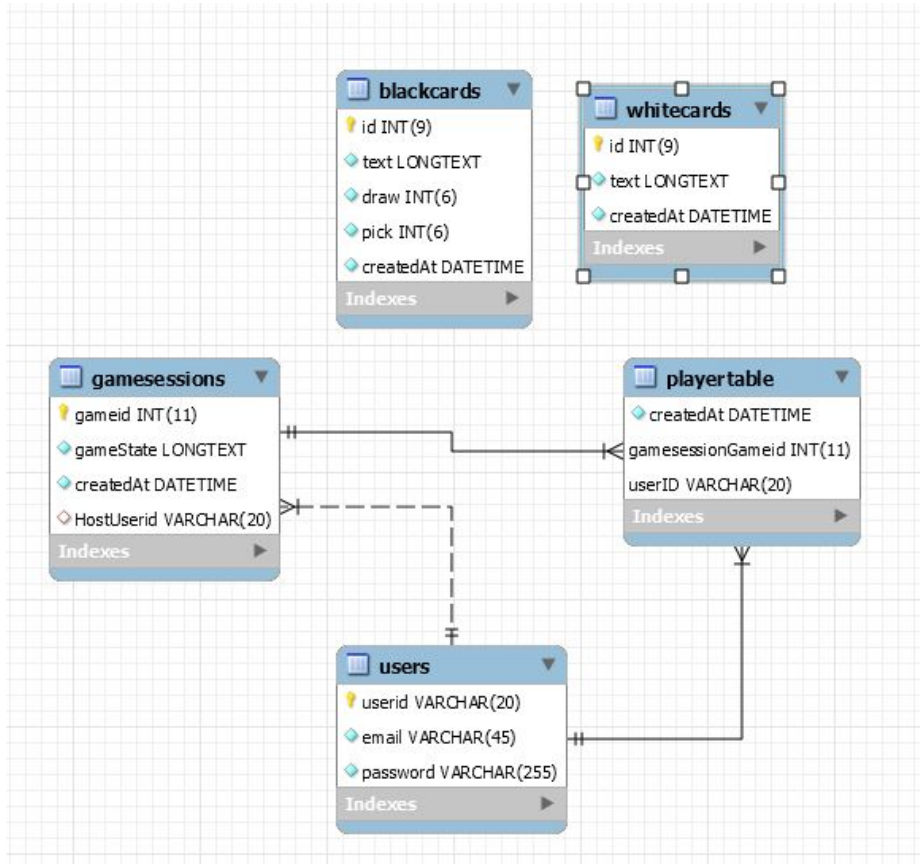
4. High Level Database Architecture and Organization

Business Rules

1. Many Users can create a Registered Account
2. A Registered User can create many Rooms
3. A Registered Users that creates a Room is a Host
4. A Room belongs to one Host
5. Many Hosts can join a room
6. Many Registered Users can join a Room
7. A Registered User has one My Games page
8. My Games page displays the Rooms a Registered User is active in

Entities

- Users - contain a userid, email, and password (encrypted). Users have a Many to Many relationship with game sessions. They can belong to many game sessions only once.
- Gamesessions - contain a gameid, gamestate, hostuserid. When a player joins a game session, the playertable stores that user id paired with that gamesession id in order to track which players are in that game session.
- Playertable - relates a game session id with multiple user ids. For example, gamesession id 1 can belong to userid's "testuser1" and "testuser2".
- Black cards- contains a card id, text, number of cards to draw, and number of cards to pick. These are used during games and are randomly pulled each turn.
- White cards- contains a card id and text. These are randomly pulled whenever a user pulls a card in a game session.

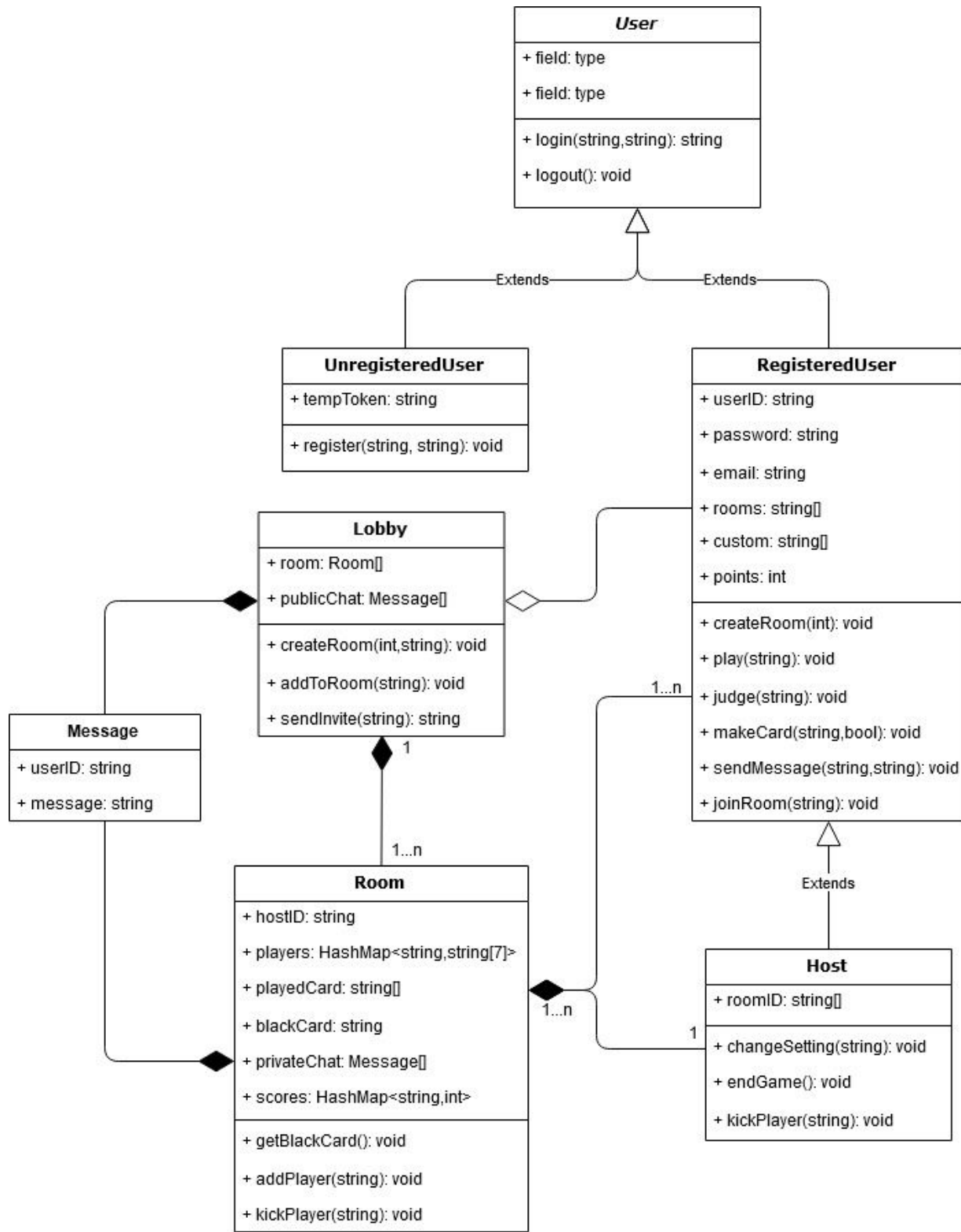


We will be using MySQL to create our database since it is very convenient and easy to use with our software stack.

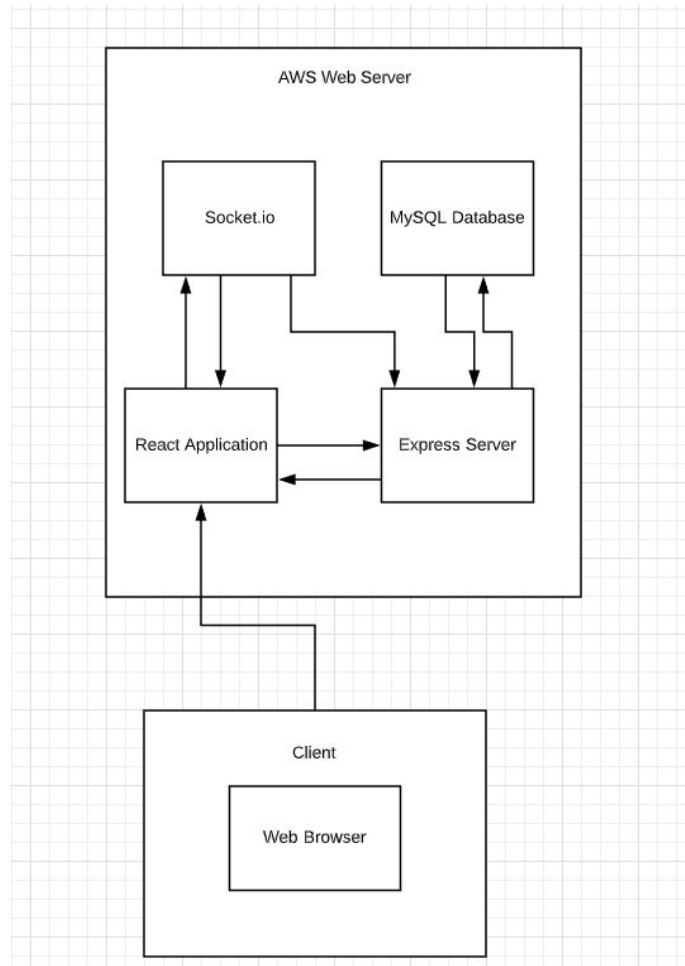
5. High Level APIs and Algorithms

- Randomizing card algorithm
- Real time chatting (socket.io)
- Game Room ID's will be automatically incremented
- Card ID's will be automatically incremented
- We are now using Sequelize to manage our database.

6. High Level UML Diagram



7. High Level Application Network and Deployment Diagrams



8. Identify *actual* Key Risks for Your Project at this time

1. Most of our team has not worked with back end development or databases. While this may slow down back end development, this should not hurt the development process. Our application will be very front end heavy, so we will not need everyone to work on the back end to implement our requirements.
2. Our meeting times have been consistent and group communication has been very active. Given what we know and what we have so far, we don't see any big setbacks.
3. The technical risk we see is managing game states and game info. For example, which player's turn it is or which cards every player has. We have ideas to solve this problem, but we are looking for the most efficient way possible, as we plan to update this in real time for the user.
4. Our team has been working very closely together, and there are no teamwork risks.
5. We see no legal/content risks.

9. Project Management

We managed tasks by picking one task each and working on those individually while receiving feedback from the rest of the group. For other parts, we worked collaboratively. In the future, we will need to assign tasks a bit more clearly as it might help our development process. However, everyone in our team is very involved, so task management will be very easy to track. We plan on using Trello for task management.