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Project Proposal

RoyalPoker
Requirements and Specification Document
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20/11/2017, version 3 (Color code: dark red)

RoyalPoker Git link: <https://csil-git1.cs.surrey.sfu.ca/group13/RoyalPoker>
Node.js helper app: <https://csil-git1.cs.surrey.sfu.ca/mcw19/RoyalPoker-Server>

Project Abstract

RoyalPoker is an online multiplayer poker game. Game will be made up of five main EPICS; they include the Texas Hold'em and 5-card poker games, a multiplayer system, a searching system, a private and public gameroom system, and an account system. In the game, players will sign up for a new account or login to their existing account and create new or join existing game rooms. Players will be able to create public, password-protected games, or private games each with custom settings. Games will be chosen between the two types of poker, Texas Hold'em and 5-card. After a game is created, new players can join or they can be invited by other players using Facebook. Other features include an unique experience system and hints specifically designed for inexperienced players. A Facebook API will be used to allow users to share their current progress or to invite other players into their game.

Customer

RoyalPoker can be used as a poker training application with real people. People suffering from a gaming addiction can benefit from the money-free nature of RoyalPoker. Other potential customers would be those looking to socialize. Card games have been a great way for friends to come together for a night and play a game. Our simple game rooms will make it easy for friends to come together and play. This removes the need of face-to-face meetings with friends.

Competitive Analysis

Poker is a widely implemented game, but what sets us apart from other online poker games is our gambling currency – player levels are derived from the current amount of money they have. A player can gain or lose their level based how they play. If they lose enough chips, they may be demoted to lower tiers. Additionally, RoyalPoker implements different variations of poker. Two prominent versions are Texas Hold'em and the Five-card draw.

User Stories

Velocity Measurement

From iteration 1, we have improved the numbers of stories per week, coming from 2.5 stories from iteration 1, to 3.5 stories in iteration 2.

Actors:

- Player
 - This actor represents the customer. A user of this app that is simply looking to play either Texas Hold'em, 5 card poker, or both.
- Developer
 - An account for app developers to access real-time debugging features unavailable to regular players, such as having access to a table with the usernames and passwords of all users; but developers will not have complete privileges that admins do. A default developer is given by the username "developer" and password "Developer002".
- Admin
 - An actor with the highest level of authority for the app. This actor will have full access to features not available to both regular users and developers, such as deleting player accounts and removing game rooms. A default admin is given by the username "admin" and password "Admin001".
- User
 - An actor that can be either an admin, developer, or player.
- Visitor
 - An actor that is not a registered user on the RoyalPoker database.

EPIC I: Account System

As a user, I want to have an account so that I can keep track of my progress and have all the privileges associated with my account on the RoyalPoker app.

| User Story | Test Case | Pre/post Conditions |
|---|--|--|
| <p>As a user, I'd like to create an account so that I can have access to the features offered by the RoyalPoker app. (Iteration 1)</p> <p>Default admin is given by username "admin" and password "Admin001"</p> <p>Default developer is given by the username "developer" and password "Developer002".</p> | <ul style="list-style-type: none">• Make sure that admin or developer statuses are grantable (can be edited) by other admins or developers through a user information update.• Make sure registration requirements for username (which must be between 5 to 12 characters and must start with a letter), password (which must start with a letter and contain a combination of lower, upper case letters and a numerical value), and password confirmation are met. <p>Success:</p> <ul style="list-style-type: none">• Make sure that after clicking "Submit" with proper values for all fields, the user will be redirected to the front page.• Make sure account is recorded in the database. <p>Failure</p> <ul style="list-style-type: none">• Make sure that if not all register conditions are met, registration will fail. | <p>Preconditions:</p> <ul style="list-style-type: none">• User is not already logged in. <p>Postconditions:</p> <ul style="list-style-type: none">• User account is created. |

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| <p>As a user, I want to login to my account so that I can use the app to the fullest. (Iteration 1)</p> | <ul style="list-style-type: none"> Make sure that login credentials are valid (ex. Username is between 5 to 12 characters and must start with a letter and password starts with a letter and contains a combination of lower, upper case letters and a numerical value. <p>Success:</p> <ul style="list-style-type: none"> Make sure the user is redirected to the main page after a successful login. <p>Failure:</p> <ul style="list-style-type: none"> Make sure error is displayed if inputs are not the right. | <p>Preconditions:</p> <ul style="list-style-type: none"> User is not already logged in. Entered username and password must match a set in the database before allowing a successful login. <p>Postconditions:</p> <ul style="list-style-type: none"> User is logged into their account. |
| <p>As a user, I want to be able to log out so that after I am done using the app, no one can use my account to play. (Iteration 1)</p> | <ul style="list-style-type: none"> Make sure that all logged in users are given a "Log Out" button when they click their username. <p>Success:</p> <ul style="list-style-type: none"> Make sure that user is redirected. | <p>Preconditions:</p> <ul style="list-style-type: none"> User must be logged in <p>Postconditions:</p> <ul style="list-style-type: none"> User is logged out |
| <p>As a user, I want to see my current progress so that I can have an idea of how many experience points I need in order to reach the next level. (Iteration 1)</p> | <ul style="list-style-type: none"> Make sure that their experience is correctly associated with their account. | <p>Preconditions:</p> <ul style="list-style-type: none"> User is logged in. <p>Postconditions:</p> <ul style="list-style-type: none"> User is shown their current experience and experience needed to reach next level. The user's username and rank will be shown at the top of this menu. Account balance will be shown |

| | | |
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| | | <p>in bright green numbers, and a bar with the text "Next Level" that will show the necessary balance a player must achieve to level up in rank.</p> |
| <p>As a admin/developer, I want to be able to have control over user settings so that I can remove any users that violate the rules, assist in error fixing, etc.. (Iteration 1)</p> | <ul style="list-style-type: none"> • Make sure that only admin and developer accounts are allowed to see this page. • Make sure that any changes done by the admin or developer still abide by database constraints. <p>Success:</p> <ul style="list-style-type: none"> • Make sure that the admin/developer is shown "User was successfully updated" message and redirected back to the user information page. <p>Failure:</p> <ul style="list-style-type: none"> • Make sure that regular users are redirected to a 403 page indicating that they do not have access to that page. • Make sure that if admin/developer changes something that violates the database constraints, an error is given and update is not recorded. | <p>Preconditions:</p> <ul style="list-style-type: none"> • User role must be admin or developer. • Admin or developer must enter the link "https://royalpoker.herokuapp.com/users". <p>Postconditions:</p> <ul style="list-style-type: none"> • Admin or developer will be directed to a list of all the users. |

EPIC II: Searching System

As a user, I would like to identify games so that I can decide what actions to do next.

| User Stories | Test Cases | Pre/post Conditions |
|---|---|--|
| As a visitor or user, I want to quickly find games so that I can join a game as quick as I can. (Iteration 2) | <ul style="list-style-type: none">Make sure that user is redirected to right search page. | Preconditions: <ul style="list-style-type: none">None Postconditions: <ul style="list-style-type: none">List of games will be shown. |
| I have the name of the game I want to find. (Iteration 2) | <ul style="list-style-type: none">Make sure that user is redirected to right search page. | Preconditions: <ul style="list-style-type: none">None Postconditions: <ul style="list-style-type: none">Gameroom is returned if a match in the database is found |

EPIC III: Private and Public Gameroom System

As a user, I would like to create game rooms so that I can play poker with others.

| User Stories | Test Cases | Pre/post Conditions |
|---|--|---|
| As a user, I want to create public games so that I everyone can join my game. (Iteration 2) | <ul style="list-style-type: none">Make sure that “New Game” button links to the correct options. Success: <ul style="list-style-type: none">Make sure creator is redirected to game room. Failure: <ul style="list-style-type: none">Make sure user is shown a error message explaining why creation was not possible. | Preconditions: <ul style="list-style-type: none">User must be logged in. Postconditions: <ul style="list-style-type: none">Game is recorded in database.Game is now searchable by other users. |

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| As a user, I want to create games with custom settings so that I can have control over who I play with. (Iteration 2) | <ul style="list-style-type: none"> Make sure that “New Game” button links to the correct options. Make sure game options are recorded in database. <p>Success:</p> <ul style="list-style-type: none"> Make sure user is redirected to game room. <p>Failure:</p> <ul style="list-style-type: none"> Make sure that if game creation is not possible, user is shown a error message explaining the issue. | <p>Preconditions:</p> <ul style="list-style-type: none"> User must be logged in. <p>Postconditions:</p> <ul style="list-style-type: none"> Game is recorded in database. Game is now searchable/joinable by other users (if not made hidden). |
| As a user, I want to be able to delete games that I have created so that when I leave, the game leaves as well. (Iteration 2) | <p>Success:</p> <ul style="list-style-type: none"> Game room disappears from game list. | <p>Preconditions:</p> <ul style="list-style-type: none"> Account username must match game room creator username. <p>Postconditions:</p> <ul style="list-style-type: none"> Game is deleted. |
| As Bob the admin, I want to be able to delete games so that if I see any illegal activities in the game, I can have the power to remove the game and pursue further action if required. (Iteration 2) | <ul style="list-style-type: none"> Make sure that “New Game” button links to the correct options. <p>Success:</p> <ul style="list-style-type: none"> Make sure game is deleted. | <p>Preconditions:</p> <ul style="list-style-type: none"> Account must be admin type. <p>Postconditions:</p> <ul style="list-style-type: none"> Game is deleted. All users within the deleted game are kicked out of the game. |
| As a user, I want to be able to join games that others have made so that I practice my poker skills with other people. (Iteration 2) | <ul style="list-style-type: none"> Make sure that game rooms are shown to all users. | <p>Preconditions:</p> <ul style="list-style-type: none"> User must be logged in. User must have enough experience for the minimum bet. |

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| | | Postconditions: <ul style="list-style-type: none"> • User enters game room. |
|--|--|--|

User Stories For Future Iterations

EPIC I: Account System

- As a user, I want to be able to see my friend's profile page so that we can compare rankings, win and loss statistics, etc. (Iteration 3)
- As a user, I want to be able to see rankings of the top 20 players so that I can easily see the competition. (Iteration 3)

EPIC III: Private and Public Gameroom System

- As Bob the admin, I want to be able to see and join all games, no matter password protected, hidden or filled games so that I can use my admin privileges on rule violating games. (Iteration 3)

EPIC IV: Texas Hold'em and 5-Card Poker Game

- As a user, I want to be able to play Texas Hold'em so that I can practice my skills. (Iteration 3)
- As a user, I want to be able to play 5-card poker so that I can practice my skills. (Iteration 3)

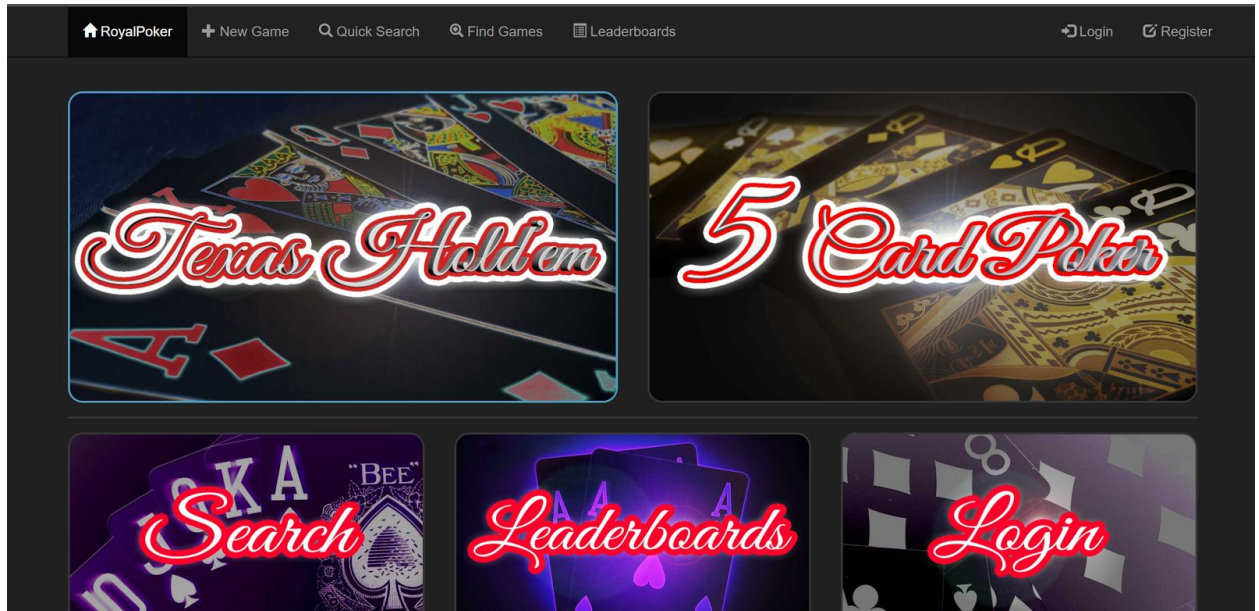
EPIC V: Multiplayer System

- As a user, I want to play with other people so that I can practice my skills. (Iteration 3)

User Interface Requirements

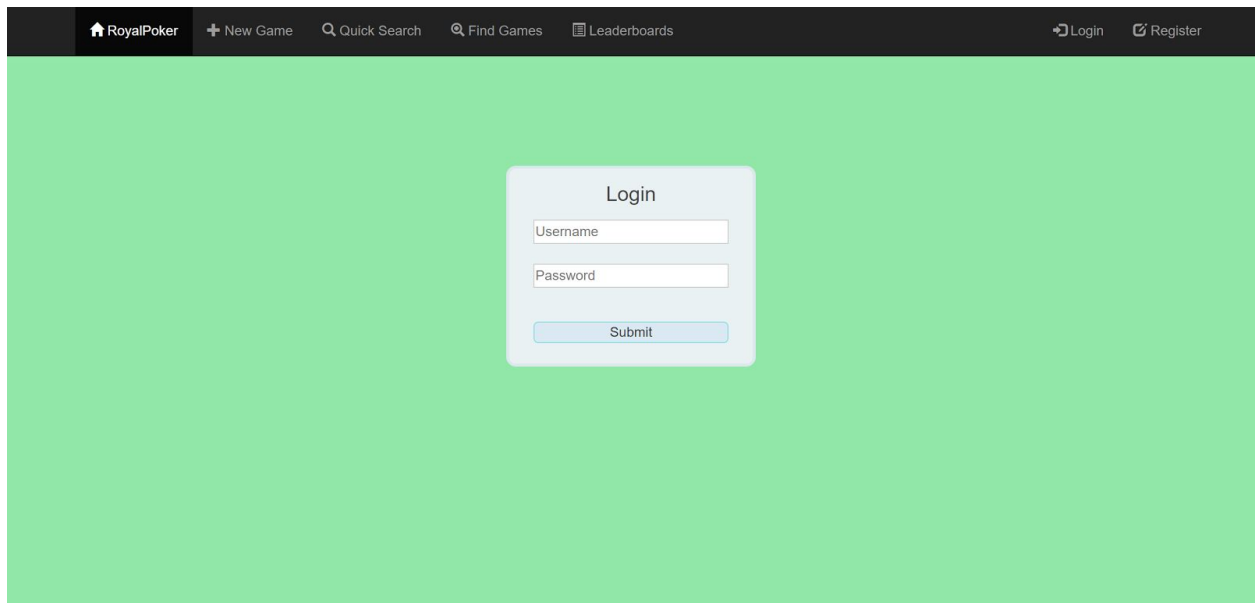
Pages:

- Homepage



- Header with navigation tabs (RoyalPoker homepage, new game, quick search, find games, leaderboards, login, register)
 - Username is shown in place of login and register buttons when user is logged in
 - When clicked, user balance, current progress, log out and share buttons will be shown.
- Body will include buttons to their corresponding pages (search for Texas Hold'em games, search for 5 Card Poker games, general search for all games, leaderboards, and login/ profile pages)
 - The login button becomes a profile button linking to the user's profile page if the user is logged in

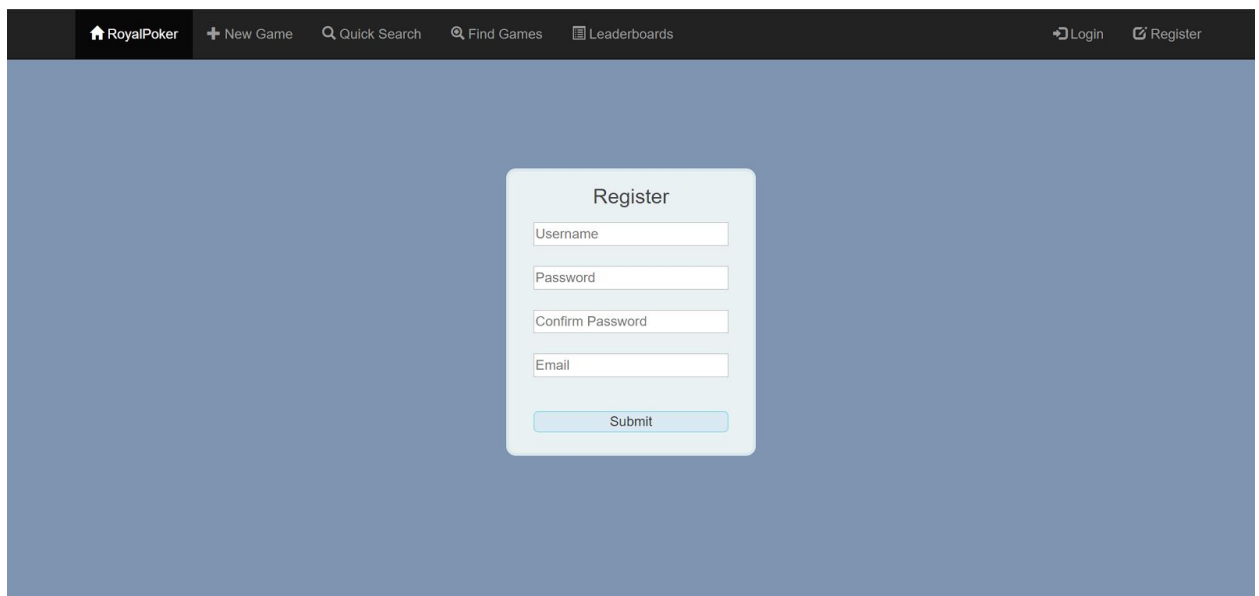
- Login



The screenshot shows a web application interface for a login page. At the top, there is a dark header bar with navigation links: 'RoyalPoker' (with a home icon), 'New Game' (with a plus icon), 'Quick Search' (with a magnifying glass icon), 'Find Games' (with a magnifying glass icon), and 'Leaderboards' (with a document icon). On the right side of the header, there are links for 'Login' and 'Register'. The main body of the page has a light green background. In the center, there is a white login form with a light blue border. The form is titled 'Login' and contains two input fields: 'Username' and 'Password'. Below these fields is a 'Submit' button.

- Header with navigation tabs
- Body includes login form
 - All types of users will have the same view

- Register

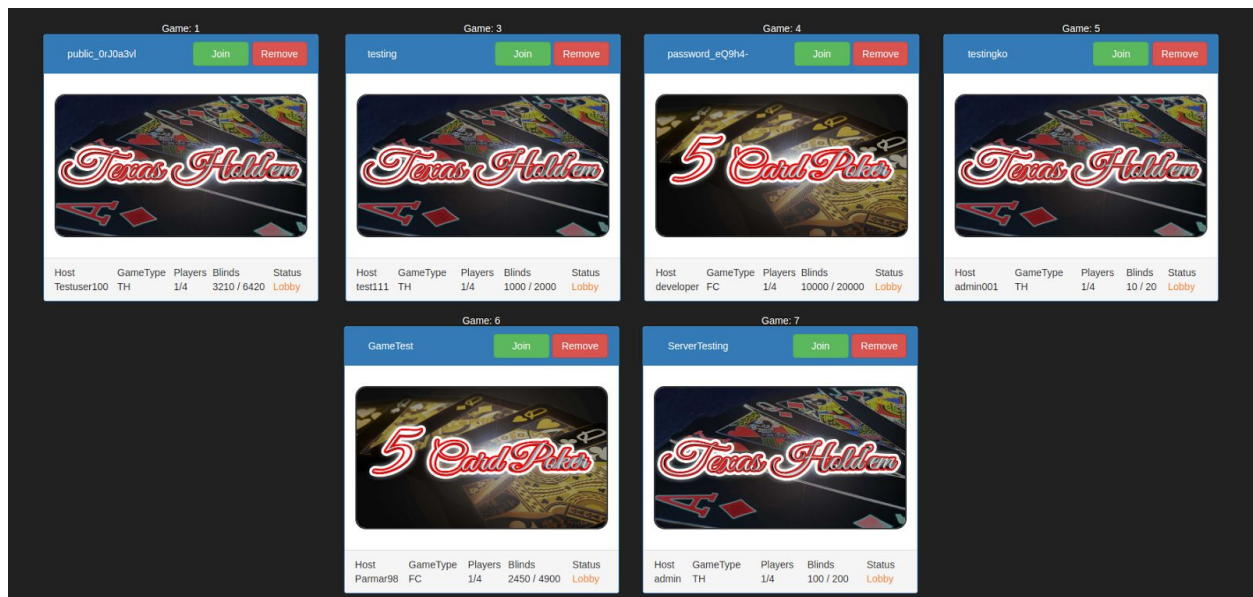


The screenshot shows a web application interface for a register page. The header is identical to the login page, with navigation links and 'Login'/'Register' links. The main body of the page has a light blue background. In the center, there is a white register form with a light blue border. The form is titled 'Register' and contains four input fields: 'Username', 'Password', 'Confirm Password', and 'Email'. Below these fields is a 'Submit' button.

- Header with navigation tabs
- Body includes register form with mandatory conditions shown when hovering over

- Conditions include:
 - Username must be set between the lengths of 5 to 12 and start with a letter
 - Passwords must contain one upper and one lowercase letter, one number, and be at least 8 characters long
 - Password must be confirmed
- Email will be an optional field

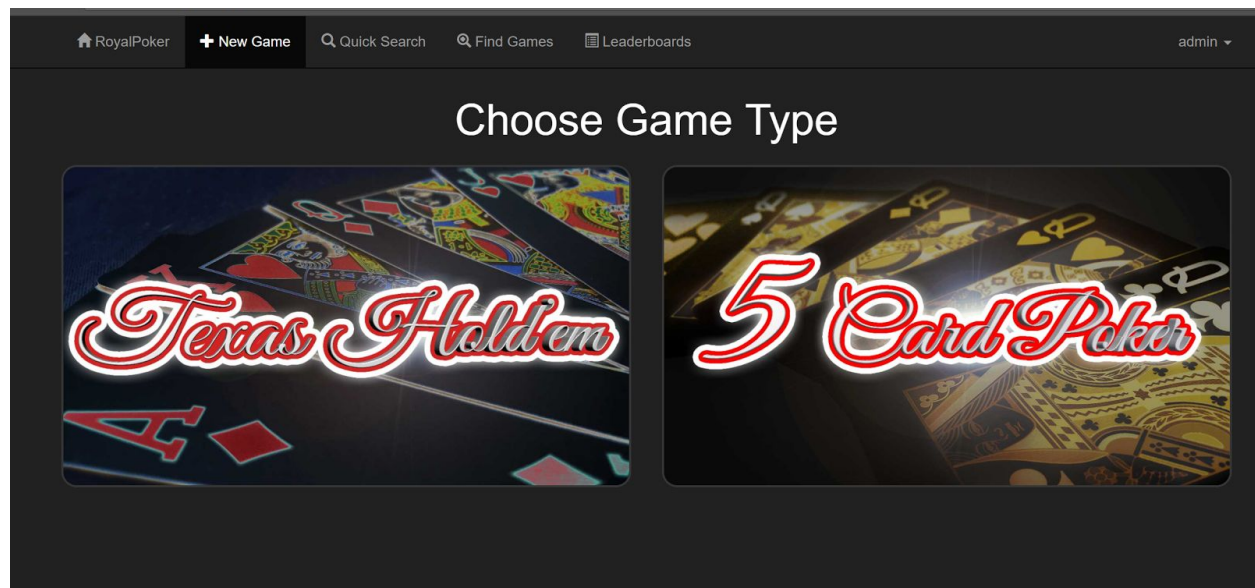
- **Game search**



- Header with navigation tabs
- Body will include a display of all the current games
 - Each game will include game information (creator's username, type of game, number of players, minimum bet of the game, and status of game)
 - Games will be either Texas Hold'em or 5-card poker
 - A count of the current number of players
 - The minimum bet set by the creator
 - Status of game will be one of the following
 - Lobby - the amount of players is not enough for a game to start
 - Playing - the game is in progress
 - Full - the game room is at maximum capacity
 - Users, admins and developers will have different views
 - Users will have basic permissions such as deleting those created by themselves and joining games that are not hidden

- Admins will have special permissions such as being allowed to remove games, see all games (including hidden), and join password protected games without entering passwords
- Developers will have similar permissions as admins except that they must enter passwords to enter password protected games, will not be allowed to remove games except those created by themselves, and will not be allowed to see hidden games

- **New Game**



- Header with navigation tabs
- Body will vary depending on step of game creation. User will be guided through different pages, each allowing user to create their own settings.
 - First page after clicking “New Game”, user will be greeted with game type options. User clicks on one of the two buttons, redirecting them to another page (next step).
 - Redirection brings user to step two, where user will be shown three buttons, public, password-protected, and hidden. User will choose one option, and will again be redirected.
 - Final redirection brings user to a page where they are shown a form where they fill out the game room name and the minimum bet. User will then click the submit button.

- **Gameplay**



- Header with navigation tabs
- Body will include the poker game in the middle and gameplay buttons on the lower left part of the screen
 - Gameplay buttons will include those for betting, folding, etc.