Team 6 Project: Barbu Online

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Team 6: Product Backlog

CS 30700

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Problem Statement:

There are few online platforms to play Barbu (a 4-player card game popular among Bridge players), and those that exist (playok.com/cardzmania.com) lack comprehensive community interaction and are mostly occupied by advanced, fast-paced players. We aim to create a more intuitive and social alternative that is geared towards beginners without alienating advanced players. Our Barbu platform will be user-friendly, community focused, competitive, and fun to play!

Background Info:

Target Audience:

Card games are popular all over the world and there are many different types of Barbu players, such as competitive, casual, social, beginning, and advanced players. Our platform is going to appeal to all of these types of players.

Similar Platforms:

https://www.playok.com/en/barbu/ https://www.cardzmania.com/Barbu

Limitations:

The main limitation with existing online Barbu platforms is that they aren't beginner-friendly. Most of them are occupied by high-level players and operate at a very fast pace. We will address this by creating different lobbies for beginning, intermediate, and advanced players, as well as offering a comprehensive tutorial for beginners. Another limitation in existing platforms is that they aren't account-based. This means that users can't track things like their win-loss record, skill level, and statistics. Furthermore, this limits the community feeling that can be created. We plan to address this by adding these features, allowing users to see information about their performance and make friends through the site.

Requirements:

Functional Requirements:

- 1. As a user, I would like to be able to register and create an account.
- 2. As a user, I would like to be able to login and edit my account preferences.
- 3. As a user, I would like to be able to create a list of "friends" that can be easily accessible.
- 4. As a user, I would like to be able to chat with my friends outside of and during games.
- 5. As a user, I would like to be able to check my game statistics.
- 6. As a user, I would like to be able to compare my skills to those of others via a ranking system.
- 7. As a user, I would like to be able to access all of the different features of Barbu Online in a smooth and efficient manner.
- 8. As a player, I would like to be able to have a record of how many games I've won or lost.
- 9. As a player, I would like to have the option of choosing to join a private game or join a public server game.
- 10. As a beginning player, I would like to be able to read or play a tutorial on how each Barbu game is played.
- 11. As an advanced player, I would like to be able to play competitively against other advanced players.
- 12. As a player, I would like to be able to pick the game type when it is my deal.
- 13. As a player, I would like to be able to double other players before a hand is played.
- 14. As a player, I would like to be able to see a visual list of the cards in my hand.
- 15. As a player, I would like to be able to easily select a card to play when it is my turn.
- 16. As a player, I would like to have the score automatically calculated at the end of each game.
- 17. As a player, I would like other players' plays to be quickly and clearly displayed during the gameplay.
- 18. As a player, if I attempt to make a play that is not allowed by the rules of the game, I would like to receive a message explaining why I can't make that play and telling me to pick a different card.
- 19. As a player, I would like the current game and doubles to be displayed for my reference during the gameplay.

20. (If time allows) As a player, I would like to be able to play a single player mode that challenges me to get better.

Non-Functional Requirements:

Architecture and Performance:

Separated front end and back end with third party frameworks for security, storage, and quality of life for the web application. We will use Python for the backend along with frameworks such as pyCardDeck to manipulate decks of cards. The front end will be comprised of JavaScript, HTML5, and styled using CSS. We will also use frameworks such as cards.js to smoothly display the visual of the card game as well as streamline the website graphically. Firebase will be used for database connection and authorization of accounts.

Security:

This is an important part of any modern system. While our system will not store much sensitive information, we will need to be sure to protect information regarding users' account information, statistics, chats, and other information. Firebase has authentication built-in, which should help with the security.

Usability:

This is a crucial factor in determining the system's success. If the gameplay isn't intuitive, people won't want to use our system, even if the other features are great. We also want to make the other features, such as player statistics and record, friends, and chat, easy to use. Since Barbu is a relatively complex game, the user interface could get messy and difficult to use if we aren't careful about how we design it.