

CINS 465 Project Proposal

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Basic Idea of Project:

- To present a card game that lets users create accounts and save, edit, and delete deck configurations. It will store information based on the matches they've won or lost and present this data to the user in the form of a profile page. Multiplayer connectivity will be enabled through web sockets to allow users to both play and communicate during matches against one another.

Pages Our Site Will Provide the User(s):

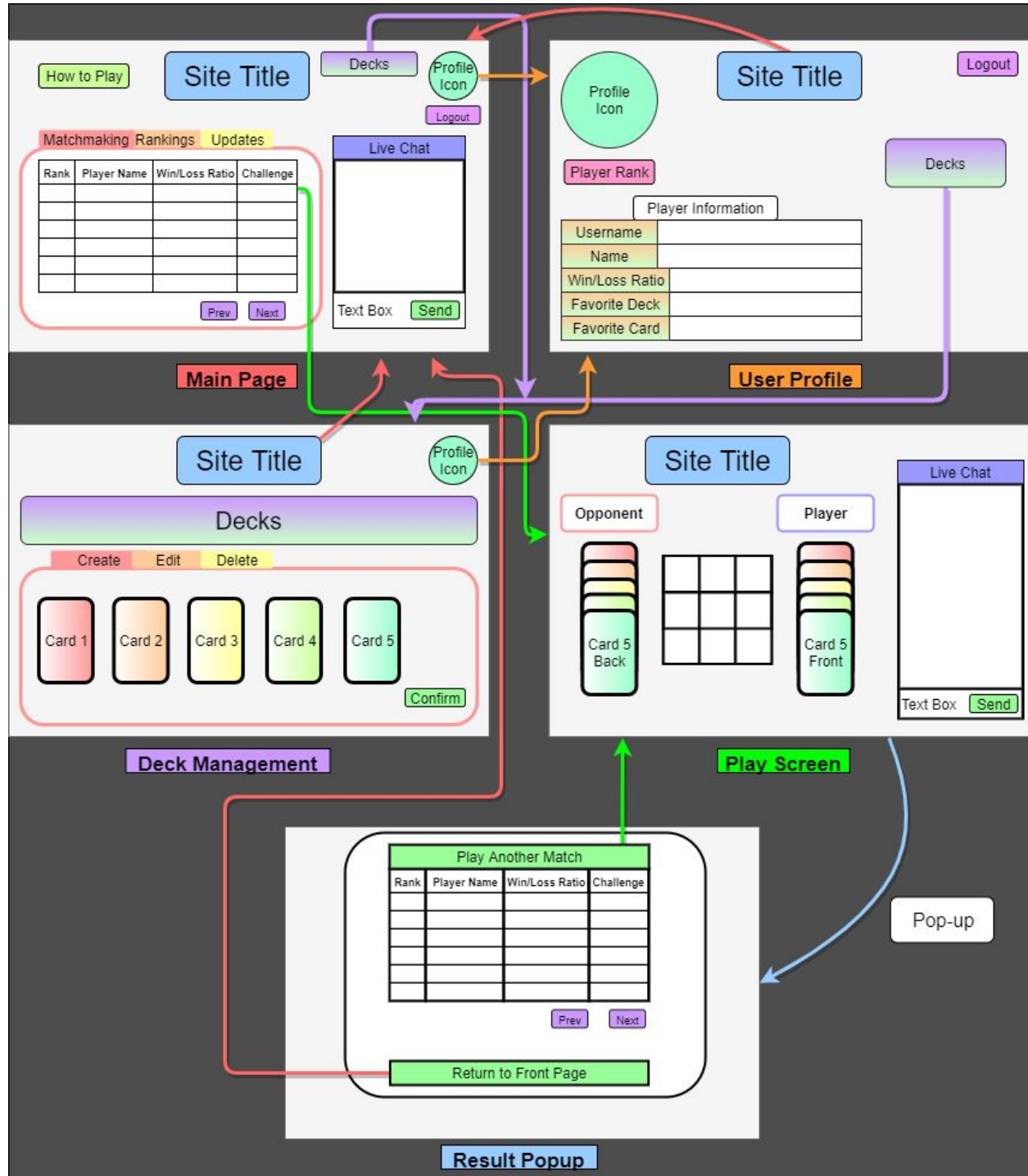
- 1. Main page:
 - Introductory page. Consists of information pertinent to the user such as matchmaking, rankings, updates, how to play, and live chat.
- 2. User profile:
 - Lists user-specific information that was entered during account creation such as username and name, but it will also contain data that has changed as a result of winning or losing matches.
- 3. Deck management:
 - Where card deck layouts can be created, edited, and deleted by the user.
- 4. Play screen and result screen pop-up:
 - The game screen. The user's and opponent's deck both consist of 5 cards on a 3x3 grid. If the user wins or loses, the appropriate message will be displayed in addition to presenting a popup with more matchmaking options based on player rank, as well as an option to return to the main page if the user does not wish to play another match.

How People Will Interact with Our Site:

- How the user will transition to:
 - 1. The main page
 - The opening page for the website. It's accessible from all pages by clicking on the banner at the top of the page with the site's title, in addition to one more option that is presented after playing a match and clicking "Return to Front Page".
 - 2. The user profile page
 - Accessible through the profile icon on the main and deck management pages.
 - 3. The deck management page
 - Reachable from both the main and user profile pages by clicking on the "Decks" button.

- 4. The play screen page
 - Only reachable by challenging another player through the main page or by initiating another match after the current one has concluded.

- Diagram:



Timeline and Task Division:

- **Week of Oct. 14 - Oct. 20:**
 - Samantha: Rough draft of proposal. Diagram of web page transitions.
 - Ryan: Final draft of proposal.
- **Week of Oct. 21 - Oct. 27:**
 - Samantha: Framework/database design (time to test - allowable up to two weeks)
 - Ryan: Framework/database design (time to test - allowable up to two weeks)
 - Milestone (both group members): To obtain a cohesive framework we both understand before coding the site.
- **Week of Oct. 28 - Nov. 3:**
 - Samantha: Basic site layout (time to test - one week)
 - Ryan: Authentication, profile page layout (time to test - one week)
- **Week of Nov. 4 - Nov. 10:**
 - Samantha: Web sockets for multiplayer (time to test - two weeks), matchmaking (time to test - allowable up to three weeks)
 - Ryan: Web sockets for live chat (time to test - two weeks)
- **Week of Nov. 11 - Nov. 17:**
 - Samantha: Web sockets for multiplayer, matchmaking
 - Ryan: Web sockets for live chat
 - Milestone (both group members): Have a firm understanding of web sockets.
- **Week of Nov. 18 - Nov. 24:**
 - Samantha: Game mechanics and implementation: rules and design (time to test - one week), matchmaking
 - Milestone: Interface game with database.
 - Ryan: Database implementation (time to test - allowable up to two weeks)
 - Milestone: Set up and inventory for the player for their cards.
- **Week of Nov. 25 - Dec. 1:**
 - Samantha: Game design and application (time to test - allowable up to two weeks)
 - Milestone: Be able to run the game.
 - Ryan: Database implementation, Inventory (time to test - one week)
 - Milestone: Have a working inventory.
- **Week of Dec. 2 - Dec. 8:**
 - Samantha: Cloud hosting (time to test - one week)
 - Ryan: Cloud hosting (time to test - one week)
 - Milestone (for both group members): Successfully upload to the cloud.
- **Week of Dec. 9 - Dec. 15:**
 - Samantha: Animated cards and effects (stretch) (time to test - allowable up to two weeks)
 - Ryan: AI bots (stretch) (time to test - allowable up to two weeks)
- **Week of Dec. 16 - Dec. 18:**
 - Samantha: Animated cards and effects (stretch), wrap up project

- Ryan: AI bots (stretch), wrap up project
- Milestone (for both group members): Final project write up due on the 18th. Will make any refinements necessary to project and turn in.

Goals for the Project:

- Deliverables

- Cloud hosted
- Account creation with views specific to logged in users and users without accounts/users not logged in
- Implements websockets for multiplayer and live chat connectivity
- Keep an inventory of all cards the user possesses
- Allow the user to edit and save their own decks to their account and be able to choose which deck they want to play a match with
- Display a profile that changes and evolves with the player, displaying data that reflects their wins and losses
- Have a playable card game with win and loss result screens
- Implement a rank-based system, where by winning matches increases your rank and losing decreases it
- Have a matchmaking system based on rank

- Stretch Goals

- Animated cards and effects
- Challenge other players through links in chat
- Friend system
- Invite a friend to a match
- Develop AI for the game to be able to play matches against the user
- Dark mode toggle
- Kubernetes deployment