CS4530 FINAL PROJECT GROUP 501

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OUR FEATURE: CASINO AREA

In Covey.Town, there are limited options for players to connect in games of risk and skill. Similarly, existing game areas lack a dynamic element that encourages people to play again. Our proposed solution is a casino game hub! Casinos are much more than places to gamble; they provide an organized setting to compete, apply your knowledge and fortune, and chase thrills. A new area addition to simulate a casino would allow players to safely simulate the excitement of gambling while bonding in play. Additionally, it would allow them to improve their analytical skills and measure their performance.

Our new Blackjack feature provides a more rewarding environment to this casino area. Users will have the ability to join different tables of different stakes. At these tables, they will be able to gamble on their fake currency (called "CoveyBucks") and play with their friends against automated dealers. Enhanced graphics, playercards, and animations will cultivate the pleasure of the game. As well, they can see how they stack up against the rest of the competition with a leaderboard. The design brings all the colorful and lively aspects of a casino to Covey.Town.

TECH STACK & DESIGN

We implemented our design atop the existing Covey codebase. We added a CasinoArea as a new type of InteractableArea, supporting extensions for casino games, with a similar CasinoAreaController. For our casino objects, we created several generalized types to incorporate different casino game styles as well as the inclusion of a currency field to the Player and PlayerController that can be updated through websocket emits. The object was made available on the map using Tiled. When the player enters the CasinoArea, they can click the spacebar to join a game or view leaderboard analytics.

Here, buttons indicate Blackjack decisions in a highly interactive React UI, designed using Figma. We used Supabase to handle user authentication and support a Postgres database and API requests via Singleton instances. Data is stored on each player to persist their currency totals and track session performance. The site is deployed and hosted using Heroku and Render, and our CI/CD pipeline automatically runs our Jest test suites through GitHub build actions. GitHub was also used to track issues and assign tasks in an Agile approach.

FUTURE WORK

We envision several more casino games being added to our CasinoArea, such as poker and roulette. These could be contained within a dedicated casino area as a map extension. For individual games, more precise data could be stored to enhance analytics, and users could interact with each other through a system of emojis and text reactions. Finally, we foresee other areas of Covey.Town supporting the CoveyBucks currency CoveyBucks as a transactional tool.

DEMO tinyurl.com/casinoAreaDemo SOURCE tinyurl.com/casinoAreaGit

