CS4530 Final Project: Covey Hats

Group 212: Christopher Lackowski, Isabelle Byrne, Jared Schmitt

New Features

Our group decided to add an economy to CoveyTown allowing players to collect CoveyCoins and use them in multiple different ways. Every 24 hours, users are able to press a button on the screen that will give them a random number of coins that they can later spend. We added a new room to the world that contains Shop Areas and Trading Areas. The Shop Area can be used by players to purchase hats using their CoveyCoins. There are 3 categories of purchases that can be made with different prices and odds of receiving unique hats. We also added a visual inventory that allows the players to see the quantity of each type of hat and number of coins they own in real time. Trading Areas can be used by 2 players to swap hats that they own. Additionally, when a player has at least one of a type of hat, they are able to press keys on the keyboard to put the hat on their player and wear it around the world. Lastly, we integrated the inventories with a database so that users can keep their hats and coins after leaving and rejoining the world.

Future Work

There are multiple future extensions that we would like to add to the project. Some of these include allowing players to purchase hats off of eachother (trading coins for hats) and allowing players to receive CoveyCoins after completion of an activity such as winning a game of TicTacToe. Additionally, we think a reasonable next step would be to add other types of items that players can purchase and use or wear other than just hats. Our group also discussed having more denominations of coins that the players can collect which have a different values and can be used for purchasing other special items, so this is something that could be completed as a next step.

Our Tech Stack & Design

Our Covey Hats project was created using the initial CoveyTown codebase. The on screen inventory and daily collection buttons were created using React components similar to already existing features in the world. The Shop and Trading Areas were made using interactables allowing the user to press space and open them. Many custom images were made and added to the code base as png files so that the player model can be displayed when wearing a hat. Lastly, the database that stores player data was created using Azure and MySQL

Link to Repo and Demo Site

Code: https://github.com/neu-cs4530/covey-town-project-212
Demo: https://covey-town-frontend-212.onrender.com/

Player Hat Trading

Shop and Inventory

Wearing Hats