CS4530 Final Project: “CoveyCorners” Forum

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Our Feature: CoveyCorners Forum

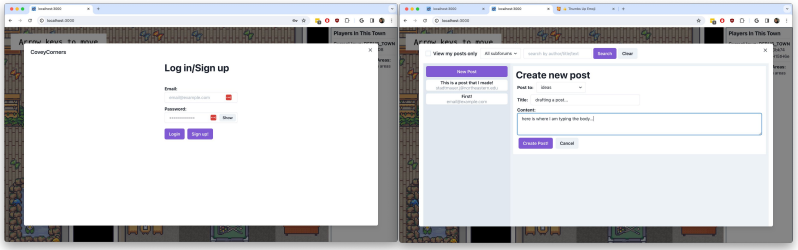
Currently, the Covey.Town application has several key features. Once a user has created a username and joined (or created) a town, users can navigate near-seamlessly between multiple conversation areas, walk into specific areas to play games like tic-tac-toe, and even find spaces to watch videos together (such as the aquarium in the Covey.Town demo). However, these features share the same drawback: any knowledge shared between players in these areas is ephemeral and gets erased once they leave the area.

To help remedy this, we developed a new type of area: the **Forum Area**. This area functions as a town message board. Users can make posts on the forum and see and reply to other users’ posts. Each post and reply has the user’s name attached to it and will persist even after the user leaves the town, allowing users to interact with each other even if they aren’t in the town simultaneously.

We felt building this functionality for Covey.Town was valuable because it provides an even more engaging experience for users. Forum Areas allow users to create their own subcultures and interact with each other asynchronously, enabling the gradual accumulation of knowledge. Overall, this feature allows towns to become even more cohesive and immersive communities that are more interesting to interact with.

Demo and Source

Our demo site is available here and our code is available here.



The log-in screen for the Forum Area

The post creation interface

Our Technology Stack and Design

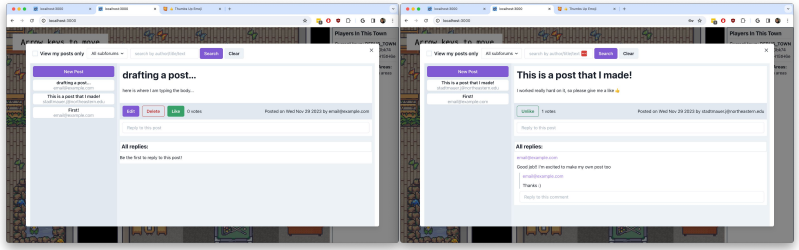
In the Covey.Town codebase, we successfully implemented the Forum Area feature, which are represented as objects in the tilemap and can be manipulated using the "Tiled" tilemap editor. To achieve this, we designed the ForumArea class as an extension of the existing InteractableArea class, allowing us to leverage its functions. Additionally, we utilized the Listener pattern to manage updates between the backend and frontend, integrating seamlessly with Firebase for database and authentication capabilities. It's also worth noting that comments are implemented as ForumPost objects that are interconnected in a parent-child relationship.

We established a continuous integration pipeline that automates testing on both the frontend and backend components, followed by deployment using Render and Netlify.

Future Work

Our original goals included support for multimedia posts (images/videos) as well as poll style posts, so this would be the first thing to add. Additionally, the ability to save, view, and delete draft posts is desirable.

While upvoting posts is supported, downvoting posts and sorting posts by votes are also potential future improvements. Finally, strengthening our authentication system through the use of cookies, and altering the new town deployment code to support town-specific forums in addition to our global forum are some long term goals for this feature.



The view of a post you’ve created

The view of another user’s post, with replies