

CS4530 Final Project: Bulletin Board

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Our Feature: Bulletin Board

While Covey.Town is very much a space for connecting individuals synchronously, there isn't an existing feature to leave a persisting message for anyone who would like to communicate asynchronously. We decided to build a bulletin board because we feel it is an important feature for connecting a community, especially in an online space. With globalization being more prevalent in our daily lives and work, as well as to support busy people who have varying schedules, we'd like a place for people to leave messages or community announcements to communicate with each other while they're offline.

Our Technology Stack & Design

Each town's bulletin board is tracked in the backend by the CoveyTownController, which handles creating and deleting posts. Expired posts are deleted every hour through a cron job setup in the CoveyTownStore. Every time a bulletin board is updated in the backend, the frontend is synced

through listeners over socket-io. Using listeners provides better performance by minimizing the number of API requests the frontend has to send and providing immediate updates to the frontend once updates are made.

In addition to the backend, the bulletin board has a graphical representation in the world map for a town in the front end. Similar to a conversation area, there is an area for players to visit in order to access the board which is rendered using Phaser. Once in the area, they can open the bulletin board modal, which is a React component, where posts can be created and viewed. With the modal open, players see all posts that have been created within the last 24 hours (with most recent posts first) through the components. These components are updated by the App component using context hooks with socket updates from the backend. Additionally, players can create posts by triggering another pop up which takes the content written and creates a post by notifying the backend of its creation.

Future Work

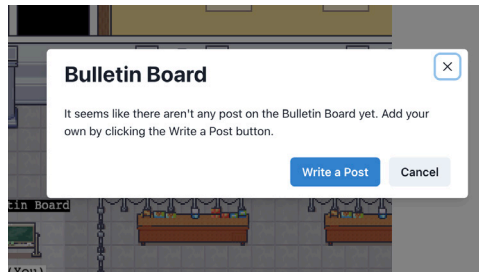
Some future work to make our bulletin board project more interactive with CoveyTown users can include allowing players to react or add comments to each individual post, similar to what we see on social media platforms today. Another interactive feature that can be built on our project is the ability to search for keywords in the bulletin posts. This would make it easier if users wanted to find/refer to a post they had already viewed. From a publisher/author's point of view, a feature enabling the option to edit and delete posts they've created would be useful. Since player IDs are not stored once they leave a town and rejoin, there would need to be some type of authentication system set up to verify that the user is the author before editing and manual deletion can be implemented.

Demo and Source

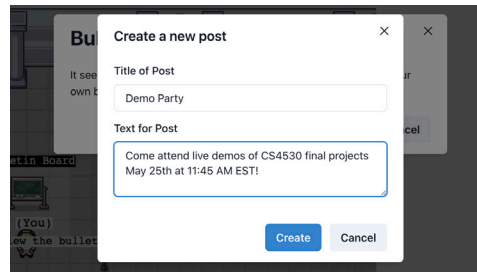
Our demo site is available at covey-bulletin-board.netlify.app, and our code at github.com/neu-cs4530-s22/team-project-group-2d.



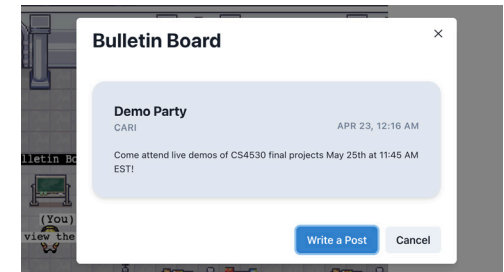
When user first loads into map, they spawn in the bulletin board activation area, with a help text indicating to press the spacebar to open the bulletin board.



If no posts exist on the bulletin board, the user is notified and prompted to write a post by clicking the "Write a Post" button.



After clicking the "Write a Post" button, the user is taken to the create post form where they can fill in the text inputs for Title and Text of the post.



After creating their post, the user can see their post appear on the bulletin board. If there are multiple posts, a scrollbar will appear for easy browsing of posts.