

CS 4530 Final Project: File Sharing

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Our Feature: File Sharing

In the original release of Covey.town, users were only able to interact and connect with each other by chatting and watching videos together. We felt that there was a potential for greater collaboration which is why we added a file sharing feature. We added a new type of interactable area to Covey.town called FileShareArea. With our implementation, users can choose a topic, upload, download, and delete files seamlessly throughout the town.

Our Technology Stack & Design

We utilized the existing interactable interface and created a new interactable FileShareArea on the backend and integrated it into the town. Our basic front end implementation followed the same model as the existing Viewing area and Conversation Area infrastructure. As users interact with the front end React modal, user inputs trigger Axios requests to our express server in order to enable file upload, download, and deletion. The express server received the RESTful API calls triggered by user inputs, allowing them to post, get, and delete. When the user wants to upload a file, clicking the upload button sends a request to the endpoint story with the file data. Once the server receives it a response event is sent back, and a listener on our front end triggers the re-rendering of the component which will now display the uploaded file. Similarly, deleting a file sends a request to the server to delete the file based on the name.

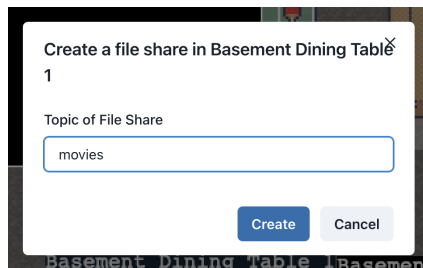
Downloads occur when users click a file name on the modal which then sends a request to the express server. The server sends back a blob to be added to the user's local downloads directory. Additional interactions with the server include the closing of a FileShareArea when all users leave the area. Similar to the normal delete function, an Axios request sends a list of file names to the server, and the server queries its stored files and deletes all from the list. Once this is done, a response is sent back to trigger a listener that re-renders the FileShareArea to show a cleared out area with no topic or files stored.

Future Work

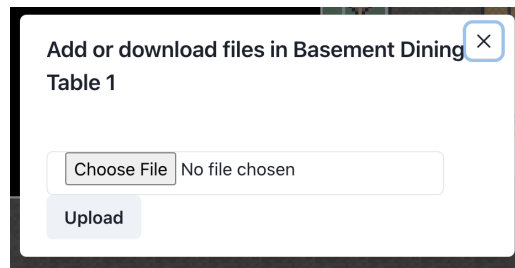
We would like to add a feature where users can send files directly to another player in the town. While our current feature allows for great knowledge transfer, we want to provide our users with the ability to share files privately in the event that the files contain sensitive or confidential information. Additionally, we would like to implement a feature where users can add a description to each file they upload. This would allow other users in the town to essentially preview a file before committing to downloading it.

Demo and Source

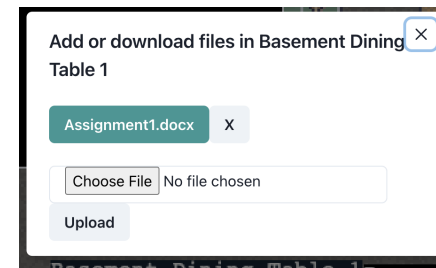
Demo site at <https://radiant-frangollo-c68b37.netlify.app> and our code at <https://github.com/neu-cs4530/fall-22-team-project-group-404>



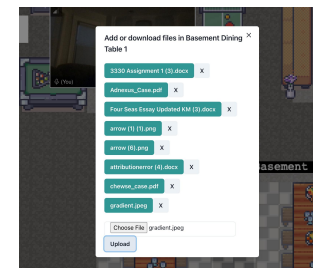
Users set a topic in the FileShareArea



Users then choose a file to upload



The uploaded file is displayed to the user and they can choose to download or delete the file



Multiple files can be uploaded to a FileShareArea