

CS4530 Final Project: “collabor8”

Group 501: Alton, Ben, Mikko, Nathan

Our Features

The original Fake Stack Overflow is a basic forum that has features such as allowing users to create posts and direct messages.

We felt that a few key features were missing that could highly enhance the user experience and lead to increased utility of collabor8.

Video Chat

Video chats can be helpful when adding additional color to complicated concepts that cannot be easily explained through text. In the context of a Q&A forum, video calls help users both understand and explain solutions with each other. To build the video chats, we used the WebRTC protocol through the PeerJS library, allowing users to connect directly to each other in real time.

Whiteboard

Sometimes, when explaining a complex concept, it is also helpful to be able to write things down (math formulas, algorithms, etc.) in order to bolster understanding. To build the whiteboards, we used WebSockets and React's built-in canvas functionality.

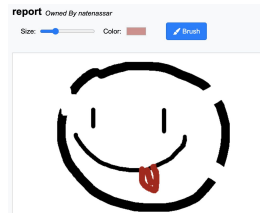
Future Work

Potential areas for future work include a complete UI overhaul, creating a view where users can join a whiteboard and video call at the same time, and enhancing video chats to allow multiple participants to join.

Links

Demo Site: <https://cs4530-s25-501.onrender.com/>

Repo: <https://tinyurl.com/collabor8-repository>



Group Chat

The group chat feature enables users to create messaging groups with multiple users. As a part of this feature, we also built out polls, notifications, and administrator controls (admins of group chats can promote users to moderators, enabling them to delete messages). To build the group chats feature, we used WebSockets for real-time notifications, messages, and poll updates.

OAuth

This feature lets users authenticate with Google accounts. Additionally, users that authenticate with Google accounts will see their Google profile picture instead of the default view profile button. For this feature we used the Google OAuth 2.0 API.

