CS4530 Final Project: "Skill Swaps"

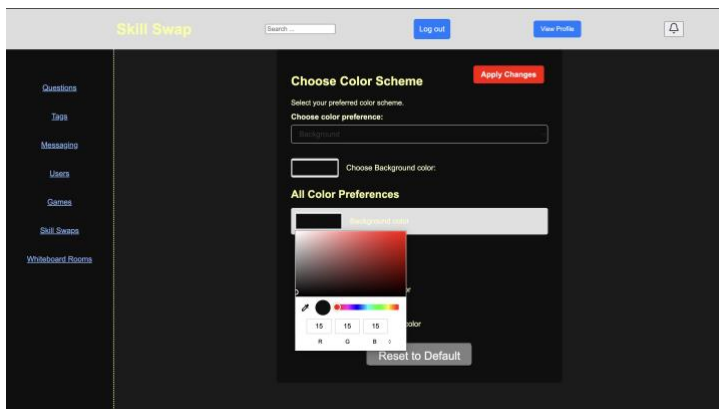Group 505: Justin Trinh, Muneer Lalji, and Aashiq Rayabarapu

Project Description

While Fake Stack Overflow provides users with the ability to ask questions and comment on them, it lacks dedicated support for collaborative learning or peer-to-peer mentorship. Our platform enhances this experience by introducing a **Skill Swap** system—users can list the skills they want to **learn** or **teach**, connect through **collaborative rooms** (whiteboards and pair programming), schedule one-on-one sessions, and directly message others.
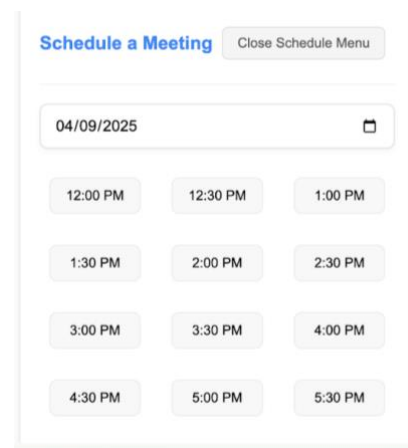We also implement **rich community features** such as editable/deletable posts, nested comments, a **like/dislike system** to build user reputation, and various **accessibility enhancements**.

Technology Stack & Design Decisions

The central feature of the platform is the **skill swap**, which allows users to easily post the skills they want to learn or teach. We implemented a **simple yet intuitive form** for skill posting, with **clear categorization** (e.g., category, skill level, language) to help users quickly find relevant posts. Additionally, the platform integrates with **Google Calendar**, enabling users to easily **schedule meetings** for one-on-one sessions and whiteboard collaborations.

Future Work

One key area for future development is improving how users are matched for skill-swapping. Currently, users can browse skill listings, but a more sophisticated matching system could significantly enhance the experience. We envision using **matching algorithms** to connect users based on a combination of factors such as **skills they want to learn**, **skills they can teach**, **availability**, and **learning goals**. Additionally, the **reputation system** could be expanded to offer perks such as exclusive content access, or higher visibility in search results. Furthermore, **leaderboards** showcasing top users in various skill categories could gamify the learning experience, motivating users to contribute more while also providing recognition for their efforts.

Demo & Code

- Demo Site: https://cs4530-s25-505.onrender.com/
- Source code: https://github.com/neu-cs4530/spring25-team-project-spring25-project-group-505

Color Customization, where users can personalize a color scheme to enhance readability and accessibility, ensuring a comfortable experience
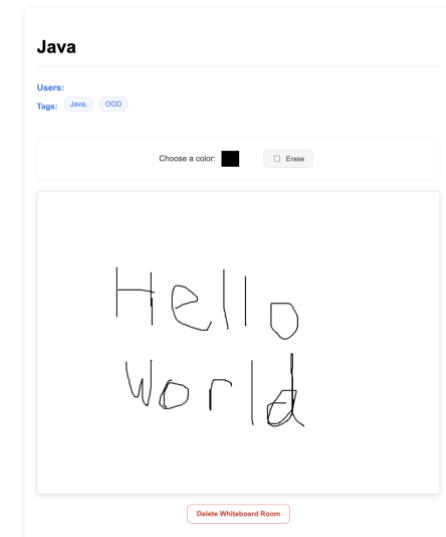

Meeting selection, where scheduled meeting will appear on google calendar

Whiteboard Room, where users can select a color, and draw on the canvas