

## Feature Overview

The codeCourier project extends the original Fake StackOverflow application for more personalization and user interaction.

## User Story 1

The focus for real-time engagement on codeCourier is based on live notifications as well as typing indicators and read receipts in chats.

## User Story 2

The codeCourier project also extends group chats, with all users having the ability to toggle on and off their typing indicators and read receipts for specific chats. All users can now send and receive files, and send and run code. Chat admins can upload background images, change the text color of messages, and rename the chat. They can also add members or remove members at any time.

## User Story 2

For user personalization, codeCourier allows Google SSO, which users can opt to use rather than signing up with a password. Users can easily change between light and dark mode themes on the main page of the app. On their user page, users can upload a profile picture and edit their display name, which both show up on messages they send in chats. With codeCourier, users are able to follow and unfollow other users, so that they can keep their messages free from others they do not know and are not comfortable talking to.

## Tech Stack + Design

- Existing types for users and chats were modified to allow for the new features. The User type was extended to allow for Google SSO, profile pictures, display names, following, and muting specific notifications. A new GroupChat type was created to allow for chat names, admins, background images, and text color. The new features were implemented through additions and extensions to models, schemas, services, controllers, and hooks. Real-time interactions were added by integrating with Socket.IO for notifications, typing indicators, and read receipts. Much of the architecture was changed from the initial codebase, both for the UI overhaul completed for themes as well as refactoring code for structure.
- After each push to the GitHub repository, the continuous integration pipeline runs automated tests, and the site is deployed using Render.

## Future Extensions

- Future work could include expanding the options for different themes. Currently, there is light mode and dark mode, but different color options would be a nice addition. The future work could also include adding more admins to group chats. Currently, the user who creates the chat becomes the admin by default, but they cannot make other chat participants admins. Another addition could be allowing users to search through messages in all chats or a specific chat, as well as letting users pin messages in chats to be easy to find.

