

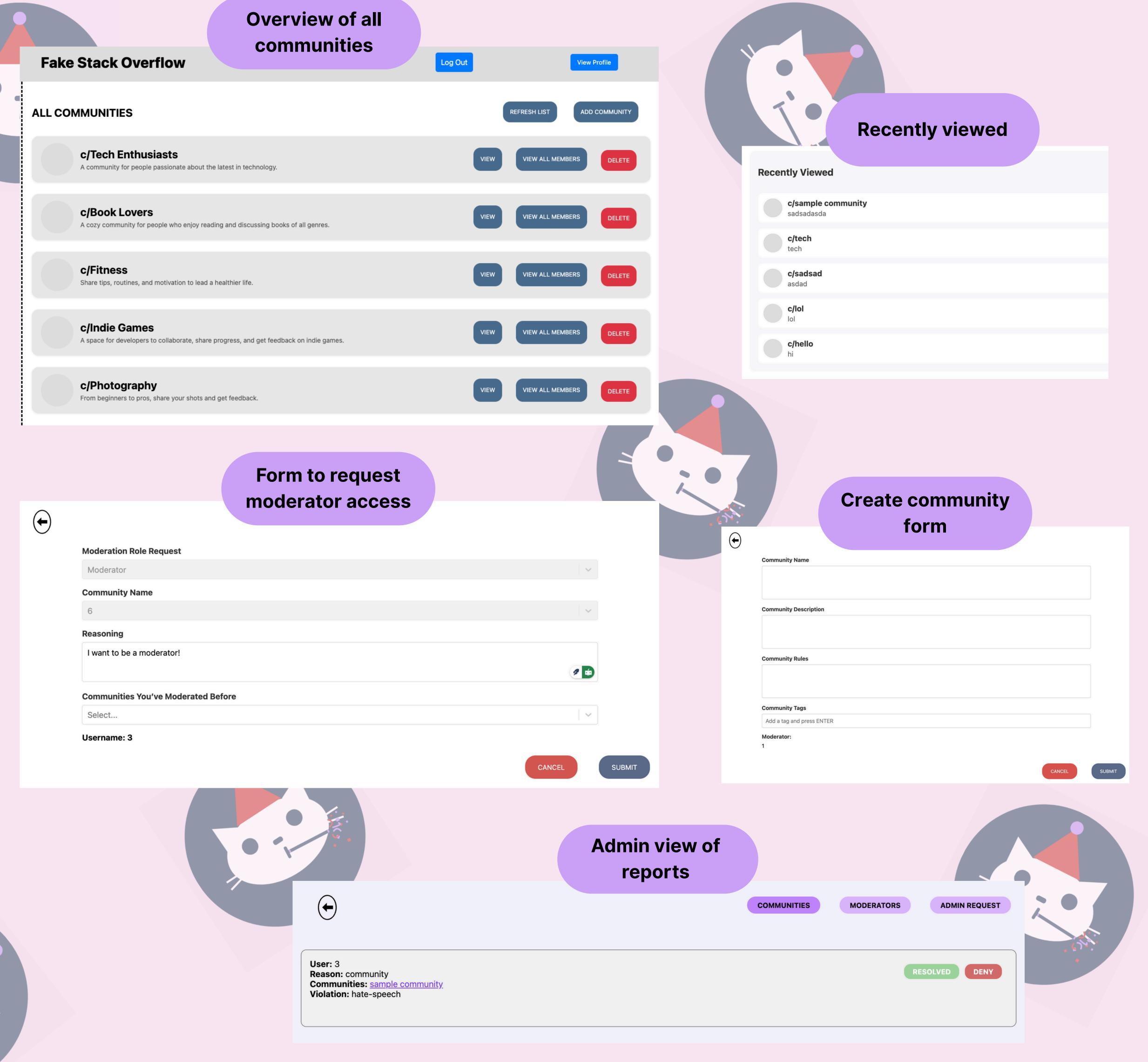
CS4530: FakeStackOverFlow

Group 402: Cynthia Chen, Caleb Lee, Carly Wenig, Fanny Zheng



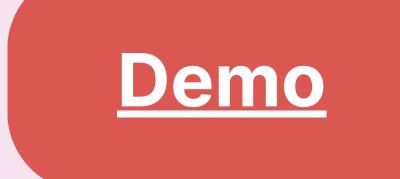
Project Overview

In the original Fake Stack Overflow, users had to manually scroll through all the questions to find one related to their interests, leading to an unintuitive user experience. We proposed a new and improved Fake Stack Overflow, introducing features such as communities, moderation roles such as moderator and admin, and the ability to report and request moderation.



Technology Stack & Design

The community design in this project follows a modular, scalable, and role-based architecture that supports dynamic user interaction, moderation, and content management. Communities act as core containers for posts, discussions, and user engagement, each with its own set of members, moderators, rules, and tags. The system emphasizes role-based access control, allowing community-specific moderators and global admins to manage content and membership through clearly defined permissions and actions. Users can create communities, join or leave them, and request moderation roles via structured forms and dashboards, with all operations supported by well-organized schemas, services, and RESTful API endpoints. Realtime updates via socket events ensure immediate reflection of changes, while the frontend integrates custom hooks and reusable components to provide a seamless and user-centric experience. Real-time updates via Socket.IO ensure immediate reflection of changes across the UI. The backend is built with Node.js, Express, and Mongoose for managing data and logic, while the frontend uses React, TypeScript, and Axios to deliver a responsive and type-safe interface. MongoDB stores all community-related data, and the system is tested using Jest to ensure correctness of core services.





Future Work

Some extensions we are interested in if given more time is allowing moderators the ability to pin certain posts or questions at the top of the community pages they moderate. Another extension that would interesting to implement is allowing a user to invite another user to join certain communities together.