



CS4530: FakeStackOverflow

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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. Real-time 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.

Overview of all communities

Fake Stack Overflow [Log Out] [View Profile]

ALL COMMUNITIES [REFRESH LIST] [ADD COMMUNITY]

c/Tech Enthusiasts <small>A community for people passionate about the latest in technology.</small>	[VIEW]	[VIEW ALL MEMBERS]	[DELETE]
c/Book Lovers <small>A cozy community for people who enjoy reading and discussing books of all genres.</small>	[VIEW]	[VIEW ALL MEMBERS]	[DELETE]
c/Fitness <small>Share tips, routines, and motivation to lead a healthier life.</small>	[VIEW]	[VIEW ALL MEMBERS]	[DELETE]
c/Indie Games <small>A space for developers to collaborate, share progress, and get feedback on indie games.</small>	[VIEW]	[VIEW ALL MEMBERS]	[DELETE]
c/Photography <small>From beginners to pros, share your shots and get feedback.</small>	[VIEW]	[VIEW ALL MEMBERS]	[DELETE]

Recently viewed

Recently Viewed

- c/sample community
sadsadsda
- c/tech
tech
- c/sadsad
asdad
- c/lol
lol
- c/hello
hi

Form to request moderator access

Moderation Role Request

Moderator [v]

Community Name
6 [v]

Reasoning
I want to be a moderator! [icon]

Communities You've Moderated Before
Select... [v]

Username: 3

[CANCEL] [SUBMIT]

Create community form

Create community form

Community Name [input]

Community Description [input]

Community Rules [input]

Community Tags
Add a tag and press ENTER [input]

Moderator:
1

[CANCEL] [SUBMIT]

Admin view of reports

Admin view of reports

[COMMUNITIES] [MODERATORS] [ADMIN REQUEST]

User: 3
Reason: community
Communities: [sample community](#)
Violation: hate-speech

[RESOLVED] [DENY]

[Demo](#)

[Source](#)

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 be interesting to implement is allowing a user to invite another user to join certain communities together.