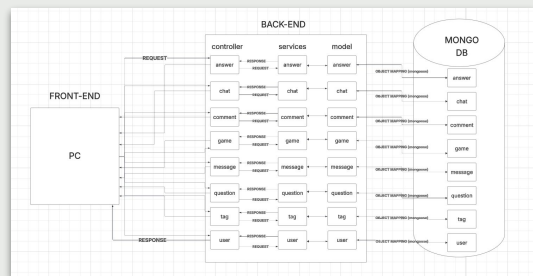


CS4530 Final Project: “FakeStackOverFlow”

1. Project Overview

FakeStackOverflow transforms the traditional Q&A platform into an engaging, community-driven experience by incorporating elements of real-time competition and deep customization. Our platform allows users to participate in multiplayer games—specifically, Nim and Code Challenge—where sessions only begin when a second player is available. In Code Challenge, players tackle coding puzzles in a head-to-head format that provides immediate feedback through live test case results, while Nim offers a strategic, turn-based gameplay experience. Accessibility has been a key focus; our platform includes a text-to-speech read aloud feature, and both font and theme selections (e.g., Arial, Georgia, Courier New, Verdana, Monaco, and themes such as Light, Dark, High Contrast, and Solarized) are available directly in the header for instant customization. The integrated bounty system further enriches the user experience by allowing users to contribute bounty points at the time a question is posted, automatically awarding these points when the best answer is selected. Additionally, questions left unanswered for 30 days receive an automatic 2-point bounty to maintain community engagement.

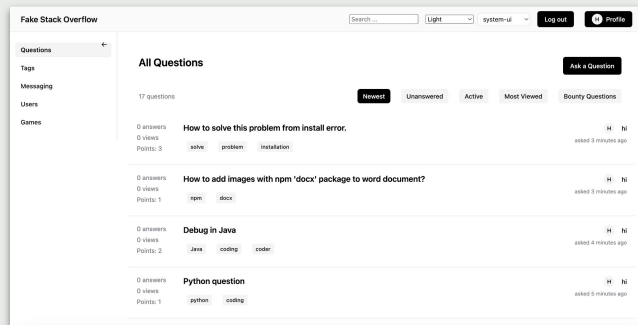


Our Architecture Diagram

2. Technical Architecture & Design

Our technical architecture is built on a modular design that separates the core Q&A functionality from the new interactive features. A dedicated real-time multiplayer module leverages WebSockets to facilitate low-latency communication and synchronized gameplay for both Nim and Code Challenge. The accessibility and customization features have been embedded directly into the header, providing users with immediate control over font and theme options without the need for additional navigation. Moreover, a specialized bounty and reputation module has been integrated, enabling dynamic point transfers and automated bounty applications based on specific criteria. This structured approach not only ensures that the new features coexist seamlessly with the legacy functionality but also enhances the platform’s maintainability and scalability.

Main Page (Header displays the Profile, Log out, Search bar and Theme/Font selection options; Side bar displays Questions, Tags, Messaging, Users and Games



3. Future Work & Enhancements

Looking to the future, our plan is to further refine the multiplayer matchmaking algorithms to support additional game modes and enhance user engagement. We also intend to introduce more nuanced metrics to the bounty system, including advanced anti-fraud measures and dynamic point scaling based on question relevance. Future iterations may explore enhanced accessibility features, such as adaptive font sizing and improved auditory feedback mechanisms, to better cater to a wider range of users. These upgrades will ensure that FakeStackOverflow remains at the forefront of innovative, user-centric design while continuously evolving to meet the needs of our community.

4. Demo and Source Code

We invite you to experience the full range of features on our live demo, available at [<https://cs4530-s25-609.onrender.com>]. For recruiters and developers interested in the technical specifics and collaborative effort behind this project, the complete source code is hosted on GitHub at [<https://github.com/neu-cs4530/spring25-team-project-spring25-project-group609.git>]. This project not only showcases our ability to develop non-trivial software with real-time interactive features but also exemplifies our commitment to creating a scalable, user-friendly platform