

CS4530 Final Project: CodeTGT

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Our Feature

CodeTGT is designed to bring developers together by creating a collaborative, interactive environment. Inspired by platforms like Reddit and Leetcode, our platform encourages collaboration by gamifying the software development process. It’s human nature that people want to connect with others over similar interests, thus we hope to give our users the chance to connect with each other through forums. To improve the user experience, we also have taken into account their personal preferences and what is trending in the community to push out personalized recommendations. Users will also receive notifications and concise summaries of updates to posts, allowing for users to stay connected. People love getting rewarded, thus we designed incentives such as daily streaks, badges, and leaderboards to encourage consistent engagement. Additionally, CodeTGT allows you to find like minded-people through categorized forums where you can ask questions and share insights on the latest tech related issues. Our platform, CodeTGT, not only focuses on enhancing the coding experience, but also builds a community to connect with like-minded peers.

Tech Stack & Design

We implemented our features in the given Fake StackOverflow codebase, which utilizes Typescript, React, Jest, and MongoDB for our database. We added both a **Forums** and **Forums For You** page which lists all the relevant forums. In the **Forums For You** page, we recommend forums based on the interests the user selects. We have also implemented tabs in our **User Profile** page, which includes various sections that organize the gamifications and settings. This way, users can personalize their profile, view their activity, update their notifications, and more. Lastly, we’ve added a **Notifications** page, with various tabs to organize them by and declutter the user’s inbox. By adding tabs to both the **User Profile** and **Notifications** page, it keeps the sections clean and concise for users to navigate. Our backend routes for **Notifications** are dynamically configured to ensure real-time updates. We also utilized NodeMailer, NodeScheduler, Bootstrap, and React Calendar Heatmap to implement mail, tabs, and our heatmap respectively. Our continuous integration pipeline runs an automated test suite on the frontend and backend components, and then deploys the site using Render.

Source

Demo Site: <https://cs4530-s25-311.onrender.com/>

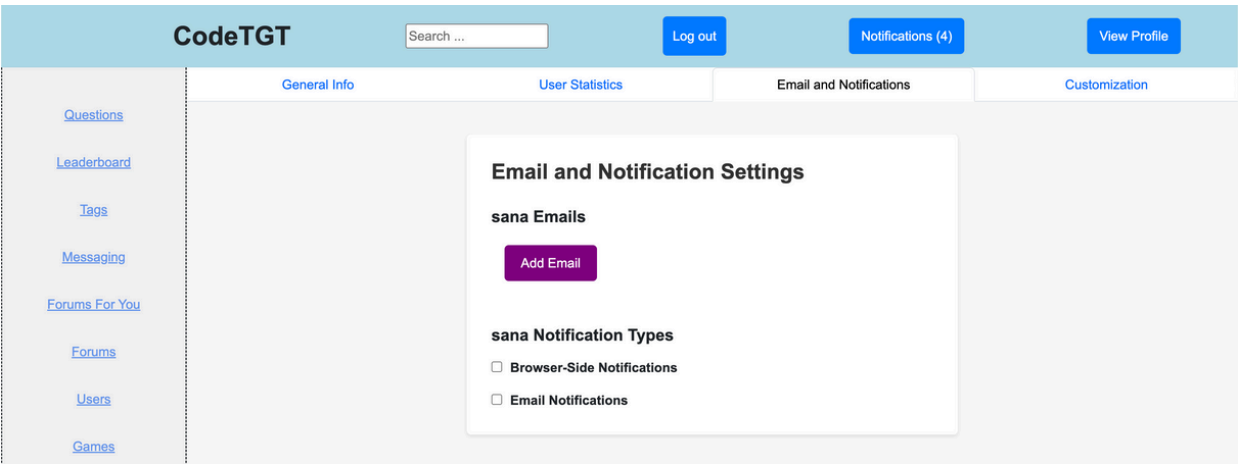
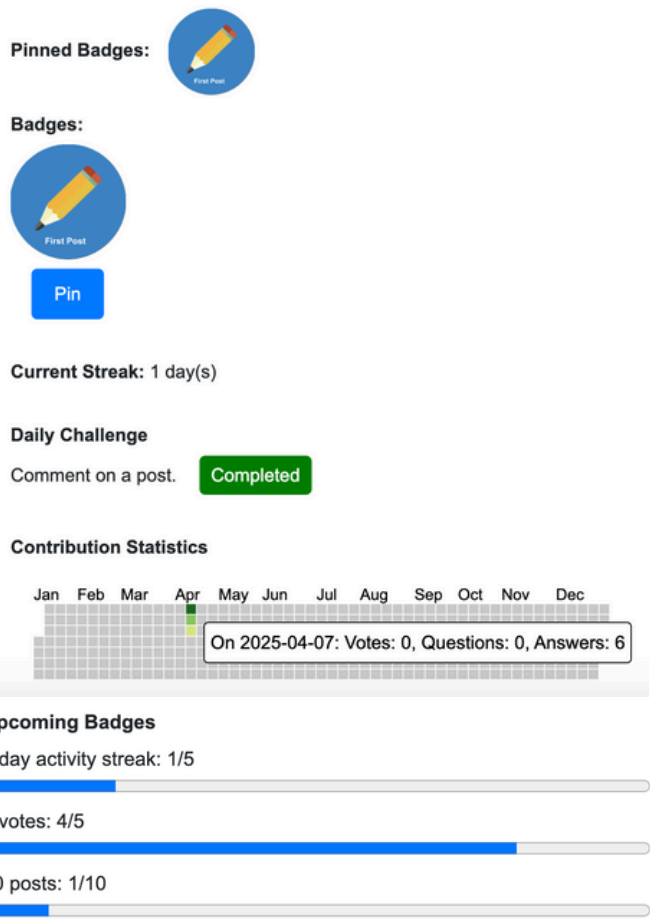
Codebase: <https://github.com/neu-cs4530/spring25-team-project-spring25-project-group-311.git>

Future Work

We would like to further develop our badges and daily challenges. Since our platform is new, we currently only have a limited amount of badges. We hope to expand the daily challenges and badges to cater to a wider range of activity levels, ensuring our platform remains exciting and relevant as our user base grows. Additionally, we would like to implement our extensions from our user stories. These extensions are features that would improve the user experience, such as seeing that I viewed a post while scrolling through the forum. Furthermore, while our notification system is fully implemented, we would like to add the ability to mute selected forums but still receive other notifications. This feature would help improve user experience and encourage greater involvement within various forums across the platform.

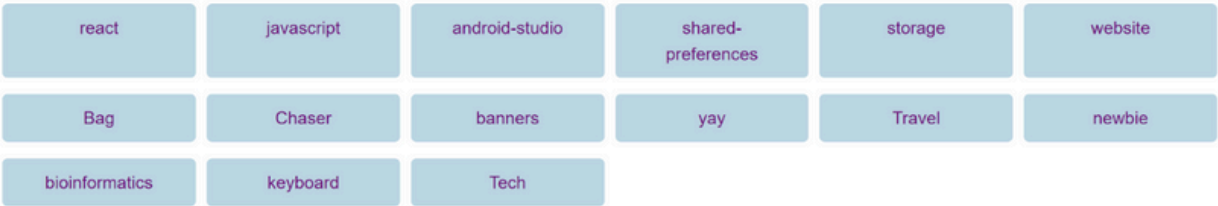
Demo

Statistical Information: sana



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