

CS4530 Final Project: asky.dev

Team 104: Tyler Kealy, Thomas Noochan, Roberto Rojo

Project Features & Description

Gambling & Leaderboard

To encourage users to engage with our platform, we introduced a virtual currency system that users can accumulate by logging in daily or gambling in the Nim’s game, and exchange for rewards, such as customizable features. We also launched a leaderboard that showcases the notable members of the community who have the most upvotes or most currency. We envision this leaderboard will encourage healthy competition and recognition in the community.

Bookmark & Notifications

To improve the user experience on our Q&A platform, we introduced a curated “For-You” page that showcases questions containing tags the user is interested or an expert in. We also launched a new Q&A bookmark system and Markdown support. Additionally, our new notification system provides real-time updates to users when users receive direct messages, gain or lose currency, or when their questions (or bookmarked questions) are answered.

UI Customization

To give users more control over their experience, we introduced accessibility settings and a suite of UI customization options that allow users to personalize the platform’s look and feel. These customizations can be purchased using the new virtual currency system, enabling users to switch between different themes and profile pictures. We also enhanced the UI and formatting of both new and existing pages to modernize the overall platform and improve navigation.

Tech Stack & Design

Back-End

In the back-end, to encapsulate user-specific data – such as the amount of currency owned, notifications, themes, and more – we created a separate MongoDB schema, which is accessed or modified using Axios to make HTTP requests to hit our RESTful API endpoints. To enable real-time notifications, the server leverages Socket.IO to maintain persistent WebSocket connections to clients, emitting updates to users on various events, such as receiving a new direct message.

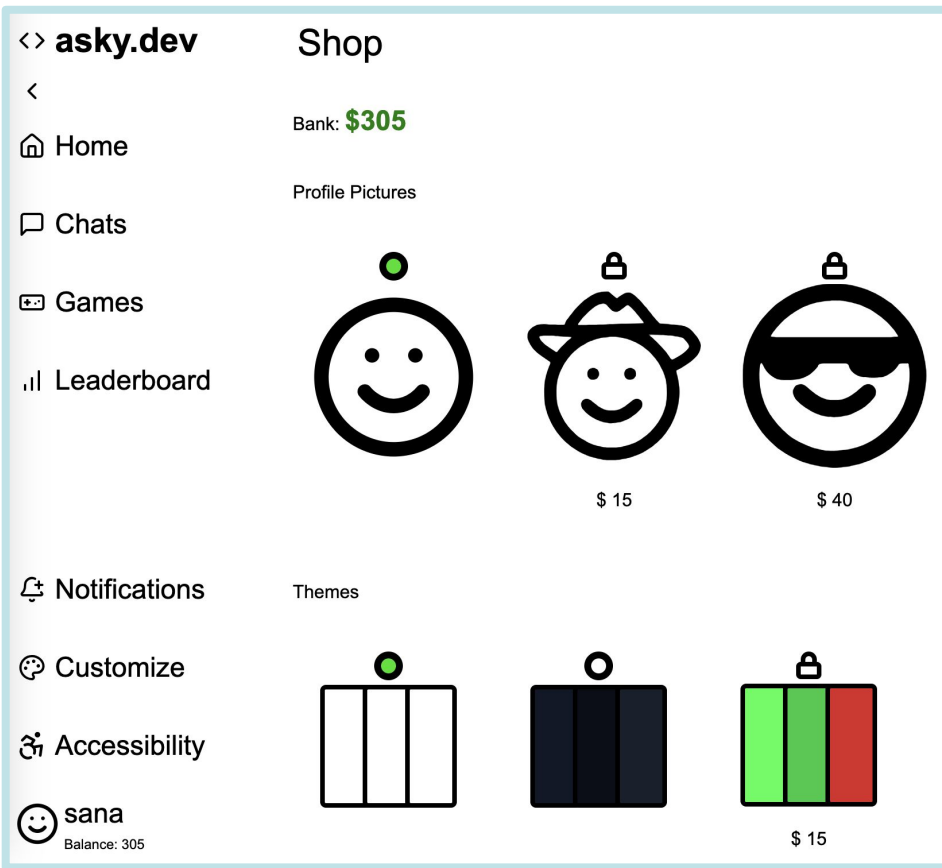
Front-End

On the front-end, we used the React framework to efficiently render and update UI components. CSS and Tailwind CSS were utilized for styling to develop a highly customizable and responsive design. To enhance the UI, we integrated Lucide icons to provide consistent and modern icons throughout the platform. These design decisions contribute to improving the user experience with a visually appealing and intuitive UI.

Future Work

Future work may include abstracting the user notification procedure for greater extensibility. Given latency issues during certain DB queries to calculate user stats, addressing this challenge should be a priority to ensure a smoother user experience. Future work can focus on expanding customization options for themes and user profiles, as well as enhancing the Nim’s game page with interactive visual models.

Demo: <https://cs4530-s25-104.onrender.com/>
Source Code: <https://github.com/neu-cs4530/spring25-team-project-spring25-project-group-104>



Community Leaderboard

