

# CS4530 Final Project: "ChristmasStackOverflow"

Group 608: Angel, Anay, Ved, Willem

Explore the live demo: <https://spring25-team-project-group-608-1.onrender.com>

link to source repo: <https://github.com/neu-cs4530/spring25-team-project-group-608>

## An Enhanced Platform for Developers:

This project reimagines the traditional Q&A experience to allow for more in-depth collaboration.

Key features include:

- **Community Groups:** Users can create, join, and moderate dedicated communities focused on specific topics.
- **Reputation System:** Users gain reputation points and badges based on meaningful contributions, encouraging engagement.
- **Interactive Reactions & Moderation Tools:** Users can react to posts with likes, comments, and ratings, archive useful content, and report inappropriate posts for streamlined moderation.

The screenshot shows the 'Reputation Leaderboard' page. At the top, there are navigation buttons for 'Notifications', 'View Profile', and 'Log out'. The page title is 'Christmas Stack Overflow'. Below the title, there are several red buttons for navigation: 'Global Questions', 'Tags', 'Messaging', 'Users', 'Games', 'Archived', 'Reputation Leaderboard' (highlighted in yellow), 'My Communities', and 'Join/Create Community'. The main content area is titled 'Reputation Leaderboard' and includes a sub-header 'How Reputation is Calculated' with a brief explanation. Below this is a table for 'Badge Categories' with columns for 'Badge', 'Description', and 'Reputation Range'. The table lists Diamond, Gold, Silver, Bronze, and Red Caution badges. At the bottom, there is a 'Top 10 Users Leaderboard' table with columns for 'Rank', 'Username', 'Reputation', and 'Overall Reputation'.

Badge	Description	Reputation Range
Diamond	Awarded for extremely high reputation points	rep ≥ 25
Gold	Awarded for exceptional contributions and high net score	10 ≤ rep < 25
Silver	Awarded for consistent quality contributions	5 ≤ rep < 10
Bronze	Awarded for initial contributions and participation	0 ≤ rep < 5
Red Caution	Indicates negative reputation	rep < 0

Rank	Username	Reputation	Overall Reputation
1	elephantCDE	27	Diamond
2	will	8	Silver
3	ihba001	5	Silver
4	rake	4	Bronze
5	saltyPeter	2	Bronze

Global Leaderboard for Reputation score and associated badge

## Technology Stack/Overall Design Decisions

- **Open AI Moderation API:** To implement our text moderation feature we used the OpenAI API which allows you to filter content for potentially harmful or sensitive text. This moderation feature was used on every user inputted text, ensuring a safe experience for all users.
- **Material UI Library:** To enhance the overall look and feel of our app, we utilized the popular React library, Material UI (MUI). MUI allows for much more customizability than the base version of React, as well as making styling much more simple and efficient. We used MUI for many purposes within our app, including buttons, menus, switches, and more.

## Future work

- **Gamified Challenges** – Introduce coding challenges and community quests to drive engagement including introduction of **Login streaks/bonuses:** Get bonus reputation for logging in everyday and making meaningful contributions. Login streaks give higher rewards depending on the length of the streak.
- **Spam/Bot detection:** Posts are evaluated for their likelihood of being spam or generated by bots. Suspicious user interactions such as repeated comments of the same text, are also evaluated to authenticate human behavior and ensure a fair platform.
- **Further user/community customization:** Users can add profile pictures and gain multiple badges which they can choose to display on their profile page. Community owners or mods can customize the community page with color themes, rules, and more.

The screenshot shows a user profile menu. On the left, there is a 'View Profile' button. To the right, there is a list of actions: 'Edit Join Type', 'Members', 'View Leaderboard', 'Guidelines', and 'View Reported Items'. Below the list, there are two buttons: 'Active' and 'Most'. The menu is divided into two sections, likely representing Admin vs. Member privileges.

List of community actions based on privileges (Admin vs. Member)