SkillDev

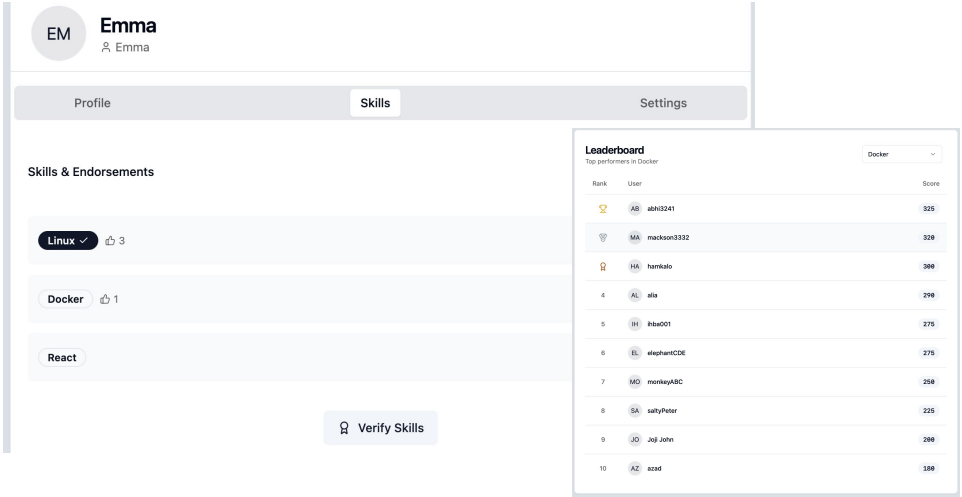
Group 108: Zachary Walker-Liang, Thomas Bell, Ryan Brueckner, Emaad Daya

Problem Statement:

In its current state, Stack Overflow offers a platform for developers to pose questions to the community, and offers public answers for looking back upon previously resolved issues. Expertise and credibility are something integrated into other platforms where the general users are providing meaningful responses and reviews, like Google reviews, a user can have status that gives their responses more credibility. While reputation points and badges exist within Stack Overflow, there is no straightforward, verifiable method to highlight a user's skill level or professional credentials on the public account. This can make it harder for question askers to identify experts they can trust and harder for experts to showcase the depth or breadth of their knowledge, beyond the upvoting and downvoting of responses.

Project Overview:

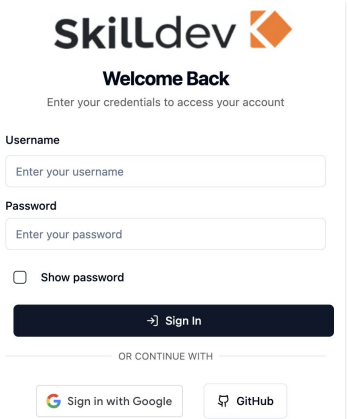
To remedy this gap, we implemented the introduction of a secure Single Sign-On (SSO) integration for verified user profiles, a skill endorsements and verification quiz system to highlight and authenticate user competencies, and the implementation of live head to head games against other users with a live leaderboard to further validate and showcase expertise.

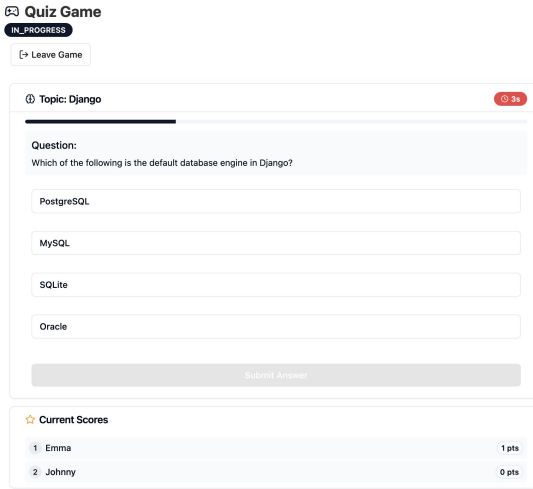


Technology Stack and Software Design:

Frontend: React, Shadcn UI
Backend: NodeJS, MongoDB, Express

We kept our technology stack relatively lightweight. We use express for API calls from client to server. Our server hosted its own database with our website data such as questions, answers, tags, usernames, user profiles/skills, and leaderboard rankings. For live updates, like for the head to head skill challenges and leaderboards, we used NodeJS sockets. We also interfaced with an external API, *quizapi.io*, for the technical questions used in the skill verification quizzes and the head to head games. We kept an API key in the environment folder on our server for *quizapi.io*.





Future work:

In the future, it would be good to have different levels of verification for each skill. For example, one could be beginner, intermediate, or expert at a skill, and the verification quiz would scale in difficulty depending on which level you are attempting. It would also be great to include live coding, like Leetcode, into live games as that could be a fun and engaging way to prepare for interviews.

Demo online at https://cs4530-s25-108.onrender.com/ Source code at https://github.com/neu-cs4530/spring25-team-project-spring25-project-group-108