**Multi-player Trivia Tournament**

**Group Members**

* Jaiden du Toit
* Neil Human *28221524*
* Lenz Neethling *26455900*
* Shalomé Neethling *24560502*
* Tiaan Viviers

**Introduction**

This project involves developing a multi-player trivia web application where authenticated users can create and join matches, compete in real time, and track their performance through leaderboards and match histories. Trivia questions are drawn automatically from online sources using a custom scraper and cover categories such as General Knowledge, Science, Entertainment, Geography, Sports, and History.

The system is built as a full-stack application: a responsive frontend with React (Vite) and Tailwind CSS, a backend with Node.js, Express, and Socket.IO for real-time gameplay, and a PostgreSQL database for persistent storage of users, matches, and questions. An admin interface supports management of questions and users.

**Use case diagram & user stories**

**Data modelling**

**Authentication**

**API design**

**Design patterns, client and server architecture**

**Deployment & environment, major dependencies (Bonus)**

**Extra features implemented**

**Known issues**

**Contribution log**

**AI usage**

No code was directly generated by AI for the final implementation of the project.

AI tools were used to assist in the planning and organization of this project. Specifically, ChatGPT was used to:

* Help split the project into tasks for five group members to work on in parallel.
* Suggest a project timeline and collaboration strategy.

All source code and technical implementation were developed by the group members.

**External code, and links to sources**