FairShare

Purpose of this project:

Our project aims to create a user-friendly expense-sharing web application to simplify bill splitting, expense tracking, and payment management within friend groups or roommates. The purpose is to streamline financial interactions, reduce conflicts, and enhance transparency among users.

Stakeholders:

- **Users:** These are the primary stakeholders who will be using the app. Some users include a group of friends, roommates, and any other group of people looking to share expenses seamlessly.
- **Developers:** Our team of 4 students working collaboratively.
- **Instructors:** Academic advisors overseeing the project's progress.

Technical Functionality:

Our application will offer the following high-level features:
- **User-Friendly Expense Tracking:** Simplified expense logging and categorization.
- **Automatic Bill Splitting:** Automated calculation of shared expenses.
- **Real-Time Balances:** Displaying who owes what within the group.
- **Payment Reminders:** Automated reminders to settle outstanding balances.
- **Expense Reports and Insights:** Visualising spending patterns and generating reports.
- **Secure and Private:** Ensuring data privacy and security through encryption.

The application will comprise both front-end and back-end components, accessible via web browsers. Machine learning will not be incorporated in the initial release.

Our Plan:

We plan to build the web application using the following tools and technologies:

- **Front-end:** HTML, CSS, TypeScript, and React for responsive web design.
- **Back-end:** Node.js for server-side logic.
- **Database:** MongoDB for data storage.
- **User Interface Design:** Figma for prototyping.
- **Hosting:** Deployment on cloud servers.
- **Data Collection:** User-generated data will be collected within the web application. We have a reliable plan to collect user data through in-app input and maintain user privacy and data security by adhering to best practices. For Version Control and Project Management we will use GitLab.

In summary, our project aims to develop a comprehensive expense-sharing web application for groups of friends or roommates. We will use modern web development tools and follow best practices for data privacy and security. The project offers valuable benefits to users by simplifying expense management and fostering transparency among groups.