

Expense Tracker Assignment

In this assignment, you are required to develop a full-stack expense tracker application. The goal is to provide users with a platform to record their expenses and visualize their spending patterns. This project will assess your ability to handle frontend, backend, and database integration, as well as your skills in data visualization.

Objectives

1. Allow users to add, edit, and delete expense records.
2. Visualize expense data with charts for better insights.
3. Ensure a responsive and user-friendly interface.
4. Use clean and maintainable code for both frontend and backend.

Requirements

1. **Backend**: Use Node.js and Express.js to build the server. Implement the following endpoints:
 - POST /expenses: Add a new expense.
 - GET /expenses: Retrieve all expenses.
 - PUT /expenses/:id: Update an existing expense.
 - DELETE /expenses/:id: Delete an expense.
2. **Frontend**: Use React to build a responsive interface with the following features:
 - A form for adding and editing expenses (fields: amount, category, description, date).
 - A list to display all expenses with options to edit or delete each entry.
 - A dashboard to visualize expenses using charts (e.g., pie chart for category distribution, bar chart for monthly expenses).
3. **Database**: Use MongoDB or PostgreSQL to store expense records with the following fields:
 - ID (unique identifier)
 - Amount

- Category
- Description
- Date

4. **Optional**: Add user authentication to allow multiple users to track their expenses individually.

Deliverables

1. Source code for the frontend and backend.
2. README file with setup instructions for running the application.
3. A brief document explaining the architecture and flow of the application.

Evaluation Criteria

1. Code Quality: Adherence to coding standards and clean architecture.
2. Functionality: Implementation of all required features.
3. User Experience: Design and usability of the frontend interface.
4. Visualization: Clarity and accuracy of data representation in charts.
5. Bonus Points: Implementation of user authentication or other innovative features.

Submission Guidelines

1. Share the project code via a GitHub repository (ensure the repository is public or accessible).
2. Include a clear README file with instructions to run the project.
3. Submit the repository link via email or as per the instructions provided.