USER MANUAL FOR EXPENSE TRAKCER APPLICATION

using extension time

System Requirements

To deploy and use the Expense Tracker Application, you need the following system setup:

1. **Operating System:** Windows 10 or later, macOS, or any Linux distribution.
2. **Python:** Version 3.10 or above.
3. **MySQL Server**: Version 8.0 or later.
4. **Dependencies:**
    - Streamlit
    - Pandas
    - bcrypt
    - mysql-connector-python
5. **Browser: A modern browser like Chrome, Firefox, or Edge.**

Deployment Instructions

Follow these simple steps to set up and run the project:

1. Clone the Repository

- Download or clone the project repository from GitHub:

2. Set Up the MySQL Database

- Open your MySQL server and create a database:

  CREATE DATABASE expense_tracker;

- Use the provided schema.sql file (included in the repository) to set up the database tables:

3. Install Python and Required Libraries

- Install Python from python.org.
- Navigate to the project directory in your terminal or command prompt:

  cd /path/to/project

4. Set Environment Variables

- Add your MySQL username and password as environment variables:
    - export USERNAME="your_mysql_username"
    - export PASSWORD="your_mysql_password"
- For Windows, set them using setx:
    - setx USERNAME "your_mysql_username"
    - setx PASSWORD "your_mysql_password"

5. Run the Application

- Start the application using Streamlit:
  streamlit run frontend.py
- The app will open in your browser. If not, navigate to http://localhost:8501 in your browser.

Project Functionalities

Here's how you can use the application and its features:

1. **Register/Login**:
   - Register a new user account or log in using your email and password.
2. **View Expenses**:
   - See all your expenses sorted by date or amount, either in ascending or descending order.
3. **Add Expense**:
   - Add a new expense by providing details like description, amount, date, and category.
   - The interface displays the list of available categories for reference.
4. **Edit Expense**:
   - Update an existing expense's amount or date.
   - View a table of current expenses before editing and the updated table.
5. **Delete Expense**:
   - Remove an expense from the database.
   - View a table of expenses before and after deletion.
6. **View Date-Range Expenses**:
   - Filter and view expenses based on a specific date range.
7. **Generate Report**:
   - Generate monthly spending reports by category.
   - View the total amount spent in each category for the selected month.
8. **Set Budget**:
   - Set a spending limit for a specific category.
   - Get an alert if total expenses in a category exceed the budget limit. Alerts are logged in the database and displayed.
9. **Analyze Spending Trends**:

    - Visualize spending trends across months using a line chart.

10. **Transaction Example (Rollback)**:
    - Simulate a rollback transaction while updating an expense to demonstrate transaction management.