---------------------- Project Requirement -----------------------

To create a comprehensive project requirement for a personal expense tracker, let's define the core features, user stories, and potential database design to ensure a clear and functional specification. This tracker will help users monitor their expenses date-wise and categorize them for better financial management.

### Project Overview:

\*\*Project Name:\*\* Personal Expense Tracker

\*\*Objective:\*\* To develop a user-friendly application that allows individuals to track their personal expenses in various categories, providing insights into their spending patterns over time.

### Core Features:

1. \*\*User Registration and Authentication:\*\*

- Allow users to register and create their personal accounts using email and password.

- Implement secure login/logout functionality.

2. \*\*Dashboard:\*\*

- Provide a comprehensive overview of the user's expenses, including current month summary, recent transactions, and a graphical representation of spending over time.

3. \*\*Expense Recording:\*\*

- Enable users to record expenses by entering details such as amount, date, category (e.g., groceries, utilities, dining out), and optional notes.

4. \*\*Expense Categories:\*\*

- Predefine a set of expense categories while also allowing users to create custom categories.

- Include functionality for editing and deleting custom categories.

5. \*\*Date-wise Tracking:\*\*

- Facilitate tracking of expenses on a daily, weekly, and monthly basis.

- Implement a calendar view for easy navigation and overview of expenses by date.

6. \*\*Reports and Insights:\*\*

- Generate reports showing spending trends, category-wise distribution, and comparison of expenses over different periods.

- Offer insights on potential savings and budgeting tips based on user spending patterns.

7. \*\*Export Data:\*\*

- Allow users to export their expense data in CSV or PDF format for offline analysis or backup.

8. \*\*Notifications and Reminders:\*\*

- Send notifications for recurrent expenses (e.g., monthly rent) and reminders for payment deadlines.

9. \*\*User Profile Management:\*\*

- Enable users to manage their profile information, including email, password, and preferred currency.

### Non-Functional Requirements:

1. \*\*Security:\*\* Implement industry-standard encryption for storing sensitive user information and transactions.

2. \*\*Performance:\*\* Ensure the application loads quickly and can handle a large number of transactions without performance degradation.

3. \*\*Scalability:\*\* Design the application to be scalable, allowing for future feature additions and user base growth.

4. \*\*Usability:\*\* The application should have an intuitive and easy-to-use interface, suitable for users with varying levels of tech-savviness.

This comprehensive set of requirements aims to guide the development of a Personal Expense Tracker that is both functional and user-friendly, addressing the core needs of individuals looking to better manage their personal finances.

----------------- User stories and journeys ------------------------

Based on the project requirements for the Personal Expense Tracker, let's create detailed user stories and journeys that cover each of the core features and objectives outlined. These stories and journeys will help visualize how users will interact with the application, highlighting their needs and the value they gain from each feature.

### User Story 1: Registration and Authentication

\*\*As a new user,\*\*

I want to register for an account using my email and a password so that I can have a personal space to manage my expenses securely.

\*\*Journey:\*\*

1. User lands on the Personal Expense Tracker homepage.

2. User clicks on the "Register" button.

3. User fills in the registration form with email and password.

4. User receives a confirmation email and verifies the account.

5. User logs in with the newly created credentials to access the dashboard.

### User Story 2: Dashboard Overview

\*\*As a registered user,\*\*

I want to see a dashboard summary of my expenses, including a current month summary, recent transactions, and a graphical spending overview, so I can quickly understand my financial activity at a glance.

\*\*Journey:\*\*

1. User logs into their account.

2. User is directed to the dashboard displaying the summary for the current month, recent transactions, and graphs showing spending over time.

3. User can click on specific sections for more detailed views or navigate to other features from the dashboard.

### User Story 3: Recording Expenses

\*\*As a user,\*\*

I want to record my expenses by entering details such as the amount, date, and category, along with optional notes, so I can keep detailed track of my spending.

\*\*Journey:\*\*

1. User navigates to the "Record Expense" feature from the dashboard.

2. User fills in the expense details, including amount, date, category, and optional notes.

3. User submits the expense record, which is then reflected in the dashboard and relevant reports.

### User Story 4: Managing Expense Categories

\*\*As a user,\*\*

I need to categorize my expenses and have the flexibility to create custom categories so that I can organize my expenses more accurately according to my personal spending habits.

\*\*Journey:\*\*

1. User goes to the "Categories" section from the main menu.

2. User views predefined categories and has the option to add a new category.

3. User creates a new custom category by specifying its name.

4. User can also edit or delete custom categories as needed.

### User Story 5: Date-wise Expense Tracking

\*\*As a user,\*\*

I want to view my expenses by date using a calendar view so I can easily navigate and keep track of my daily, weekly, and monthly spending.

\*\*Journey:\*\*

1. User selects the "Calendar View" option from the dashboard or menu.

2. User browses through the calendar to see expenses logged on specific dates.

3. User can click on a date to see detailed expenses for that day.

### User Story 6: Accessing Reports and Insights

\*\*As a user,\*\*

I desire to see graphical reports and receive insights on my spending patterns and potential savings so I can make informed decisions about my finances.

\*\*Journey:\*\*

1. User navigates to the "Reports" section.

2. User selects the type of report or insight they wish to view (e.g., spending trends, category distribution).

3. User reviews the reports and insights, which help in understanding spending habits and identifying savings opportunities.

### User Story 7: Exporting Data

\*\*As a user,\*\*

I wish to export my expense data in CSV or PDF format so I can analyze my spending offline or keep a backup for my records.

\*\*Journey:\*\*

1. User goes to the "Settings" or "Reports" section and selects the "Export Data" option.

2. User chooses the format for export (CSV or PDF) and the date range of the expenses to be exported.

3. User downloads the file containing the expense data.

### User Story 8: Notifications and Reminders

\*\*As a user,\*\*

I want to receive notifications and reminders for recurrent expenses and upcoming payment deadlines so I can manage my payments more effectively and avoid late fees.

\*\*Journey:\*\*

1. User sets up reminders for recurrent expenses and payment deadlines in the "Reminders" section.

2. User receives notifications through email or mobile app notifications as the due dates approach.

3. User can review and manage these reminders and notifications settings at any time.

### User Story 9: Managing User Profile

\*\*As a user,\*\*

I need to manage my profile information, including email, password, and preferred currency, so my account remains up-to-date and reflects my preferences.

\*\*Journey:\*\*

1. User accesses the "Profile" or "Settings" section from the dashboard.

2. User updates their email, password, or preferred currency settings.

3. User saves changes, which are immediately applied to the account.

These user stories and journeys provide a detailed framework for how users will interact with the Personal Expense Tracker, ensuring the application meets their needs and offers a valuable tool for managing personal finances.