1. **Project Title: My Finance - Simple Personal Finance Management System**

A straightforward platform for tracking income, expenses, and monthly budgets, with features like transaction management, financial summaries, and expense analysis.

1. **High-Level Functionalities**

**User Management**

* User Registration, Login, and Password Reset
* User Profile Update

**Financial Record Management**

* Add Income and Expenses
* Edit or Delete Transaction Records
* Categorize Records (e.g., Food, Entertainment, Tuition)

**Financial Statistics and Reports**

* Monthly Income and Expense Summary
* Category-wise Expense Visualization (Pie Chart)
* Monthly Balance Tracking

**Search and Filter**

* Filter Transactions by Date, Category, or Amount
* Keyword Search Functionality

1. **Two Example Scenarios (User-System Interactions)**

**Scenario 1: Adding an Expense Record**

* **User**: A college student, Xiao Ming
* **Requirement**: Record a meal expense
* **Flow**:
  1. Xiao Ming logs into the system.
  2. Clicks the "Add Expense" button.
  3. Fills in the amount, date, category (e.g., Food), and notes.
  4. The system saves this data into MariaDB and updates the monthly expense summary.
  5. A "Record Successfully Added" message is displayed.
* **Required PHP Logic and Database Operations**:
  1. Database Insert: INSERT INTO transactions
  2. Data Validation: Prevent empty or invalid inputs
  3. Data Aggregation: Update monthly total expenses

**Scenario 2: Viewing Financial Reports**

* **User**: An office worker, Xiao Hua
* **Requirement**: View this month's income and expense distribution
* **Flow**:
  1. Xiao Hua logs into the system.
  2. Clicks the "View Reports" button.
  3. The system retrieves the current month's transaction records from MariaDB.
  4. Calculates the percentage distribution of each category and generates a pie chart.
  5. Displays the pie chart along with a financial summary.
* **Required PHP Logic and Database Operations**:
  1. Database Select: SELECT FROM transactions
  2. Data Calculation and Aggregation: Summarize totals by category
  3. Data Visualization: Generate charts (e.g., using Chart.js)