



Database Management System

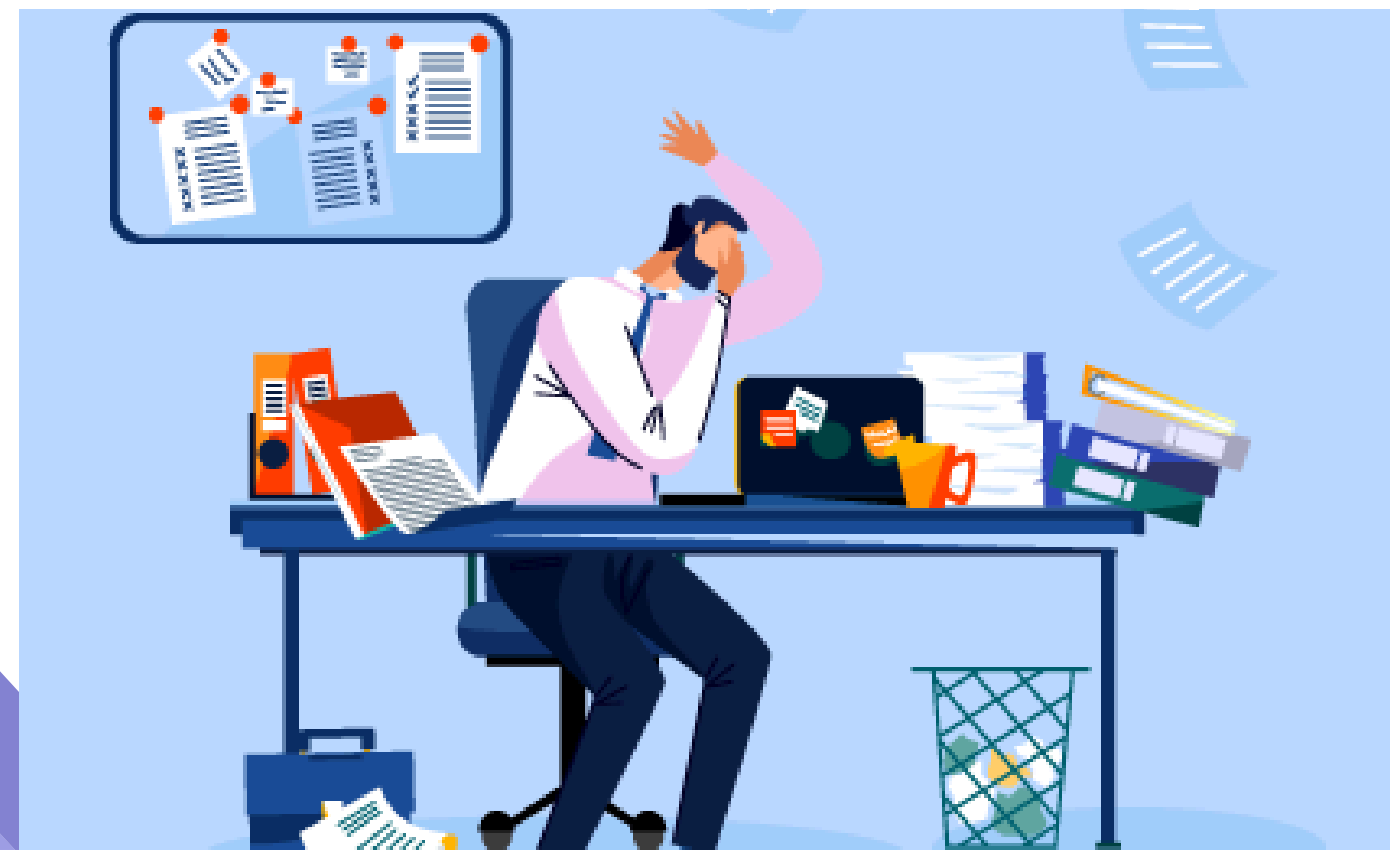
Grocery List Home Application

Attia Batool

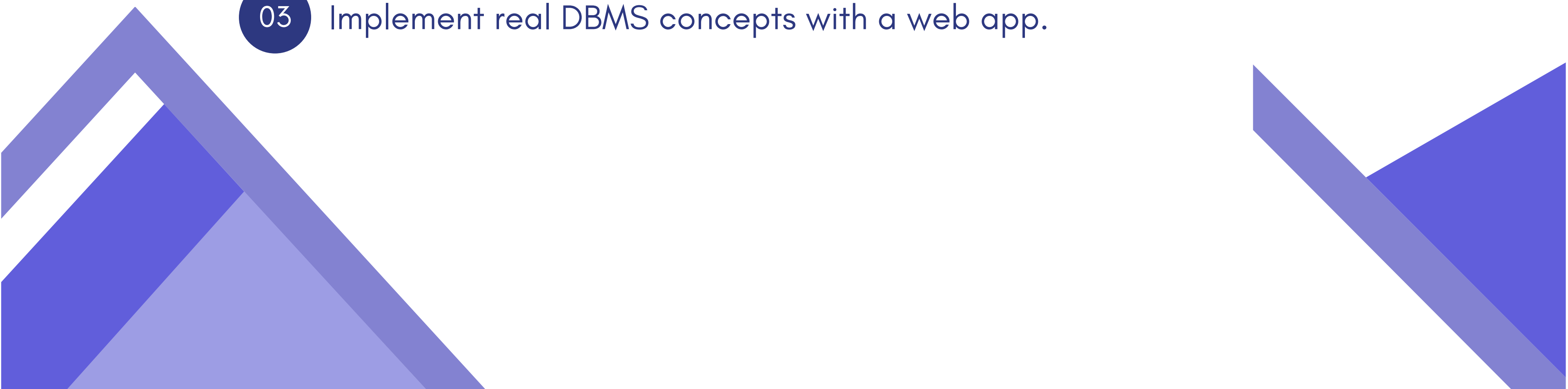
06 May, 2025

Problem Statement

- 01 Manual tracking = Errors, missing stock, poor records.
- 02 No category-wise or expense tracking for shopkeepers
- 03 Need for a simple, database-driven inventory solution.



Project Objectives

- 01 Design a database to manage grocery items.
Enable users to add, view, and delete their items.
 - 02 Generate reports by category and expense.
 - 03 Implement real DBMS concepts with a web app.
- 

Tools & Technologies

- Frontend: HTML, CSS
- Backend: PHP
- Database: MySQL
- Server: XAMPP (Apache + MySQL)

Methodology.

Requirement Analysis

- Identified the core needs: item tracking, user login, category-wise organization, and expense reporting for effective grocery management.

Database Design

- Designed a normalized relational database (grocery_db) with four tables: users, items, categories, and expense_reports, ensuring data integrity and logical relationships.

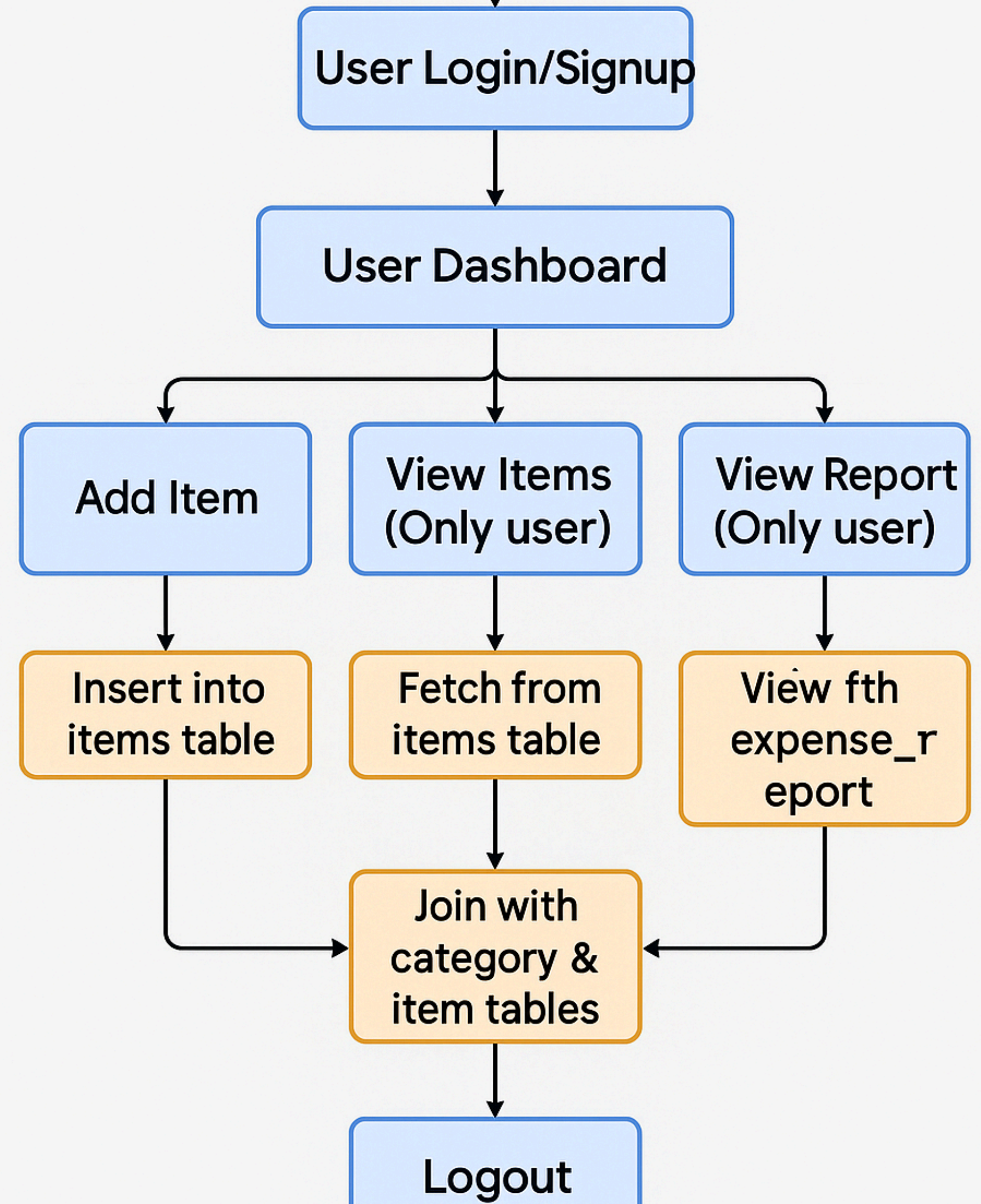
Backend & Frontend Development

- Implemented user sessions, item operations (Add/View/Delete), and category analytics using PHP (backend) and MySQL, with a simple HTML/CSS frontend.

Testing & Deployment

- Verified functionalities like login flow, data insertion, report generation, and logout under various test cases using XAMPP for local deployment.

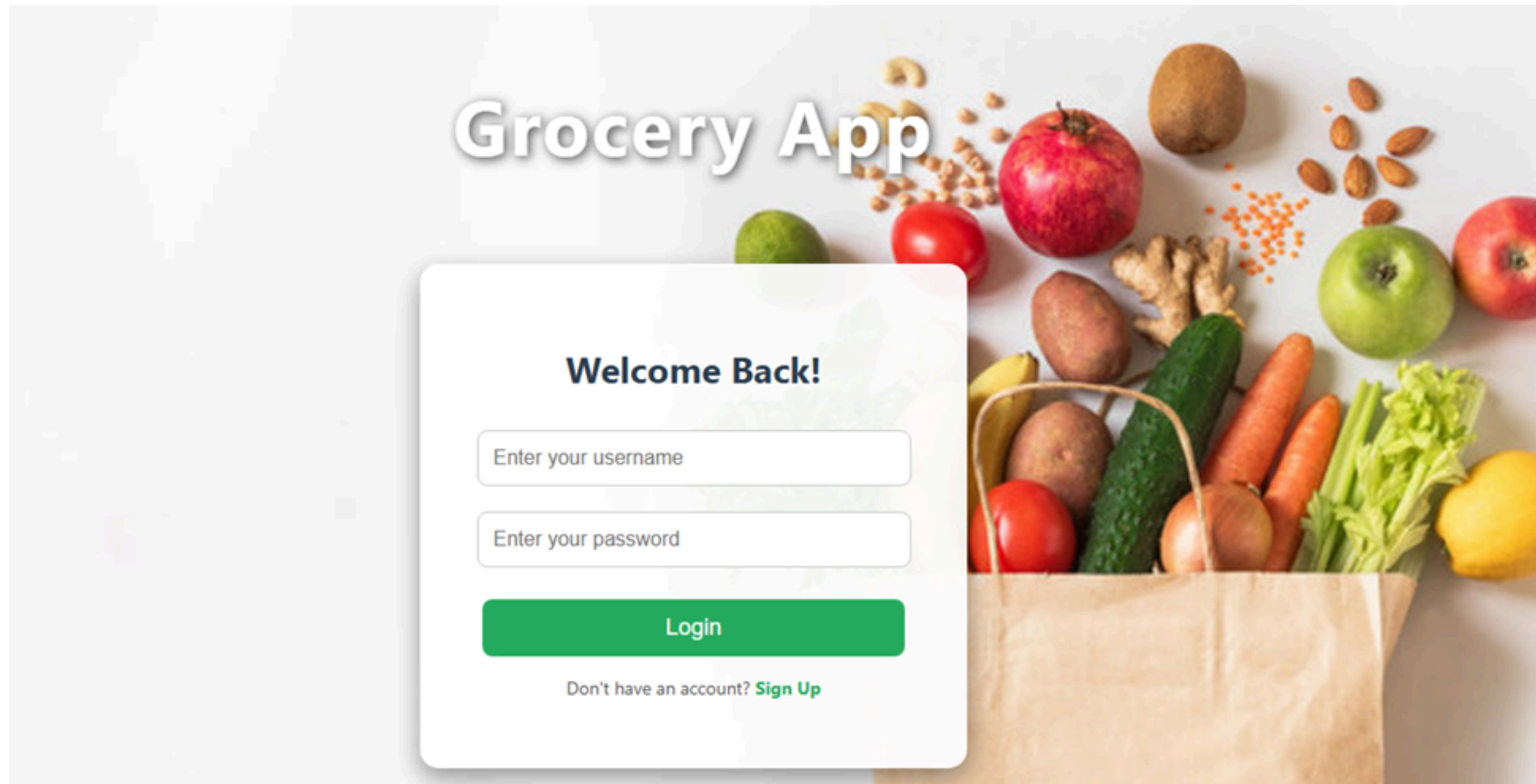
Flow of My Project



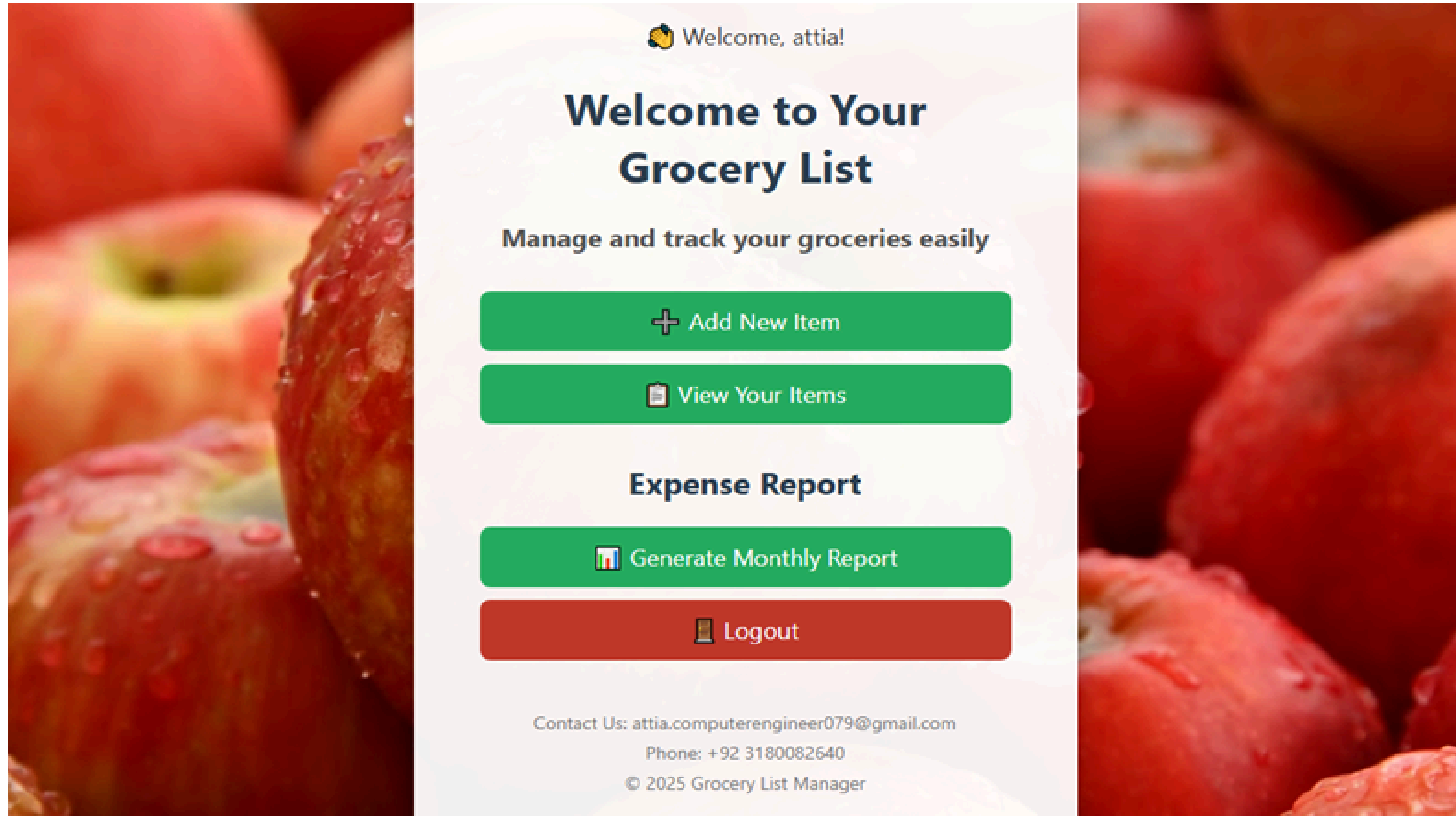
Results

- Items are properly inserted, displayed, and deleted from the MySQL database.
- I successfully applied Insert, Select, Delete, and Count queries.
- Implemented session-based login/logout system.
- Displayed grocery data dynamically from the database.
- Category analysis helps visualize which items are most used.

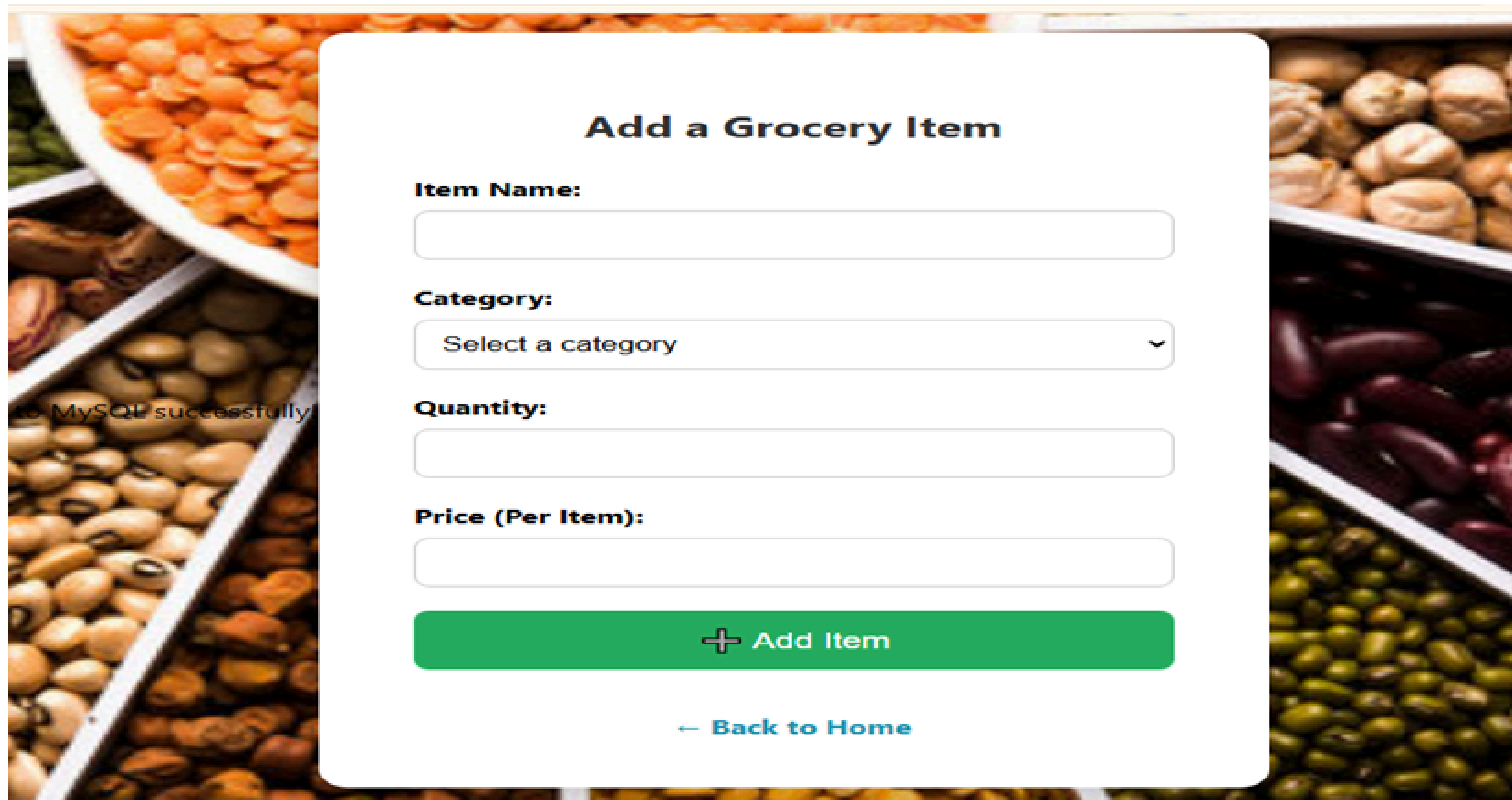
login signup page



Home Dashboard



Add items page



Add a Grocery Item

Item Name:

Category:

Select a category ▼

Quantity:




Price (Per Item):

+ Add Item

[← Back to Home](#)

view items page

Your Grocery List

Item Name	Category	Quantity	Price	Total	Delete
eggs	dairy	6	30.00	180.00	
potatao	vegetables	20	5.00	100.00	
chips	snacks	10	50.00	500.00	

Grand Total: \$780.00

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Reports page

Total Expense:

780.00 USD

Total Quantity:

36 items

Top Spending Category:

snacks

Category Contributions

snacks (64.10%)



dairy (23.08%)



vegetables (12.82%)



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Applications

01

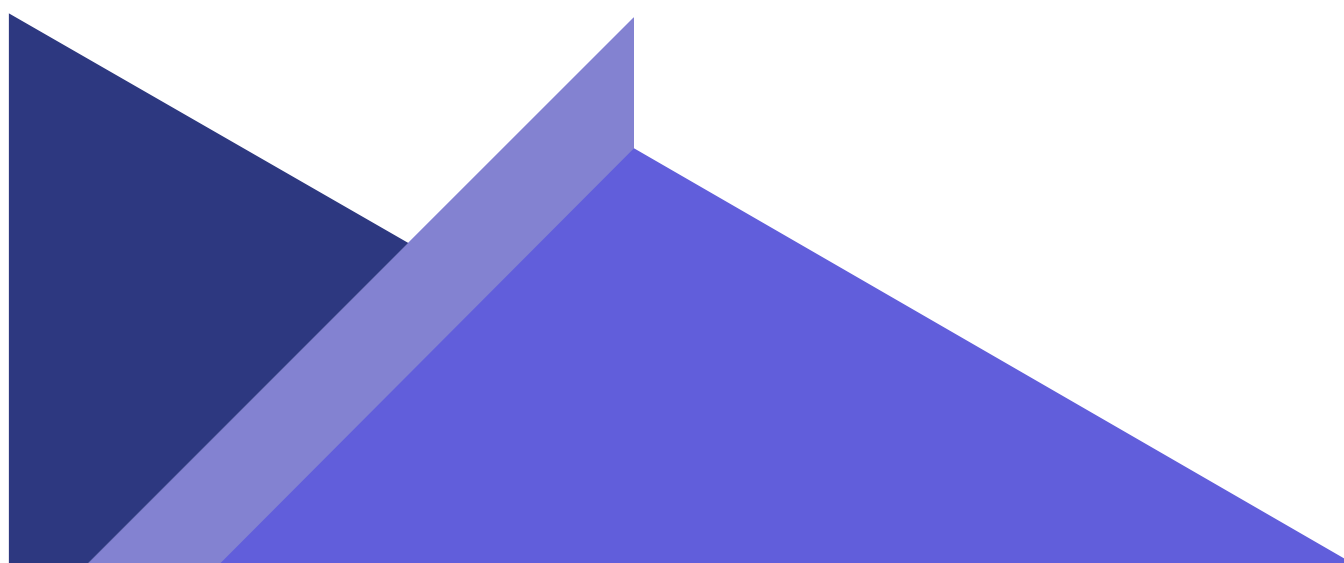
Small Retail Stores & Kirana Shops

Helps shopkeepers track stock, manage categories, and avoid over/under-ordering—leading to better inventory control and reduced waste.

02

Household Grocery Management

Families can manage their grocery items digitally, track usage patterns, and analyze monthly expenses easily without forgetting what to buy.

Decorative geometric shapes in the bottom left corner, consisting of overlapping triangles in dark blue and light blue.

Conclusion & Future Work

- 01 A practical DBMS project with real-world use
- 02 Strengthened database and backend logic skills
- 03 Add update item feature, Password-based login, Visual category charts

The image features a decorative graphic in the top-left corner consisting of several overlapping triangular and quadrilateral shapes in various shades of purple, ranging from a deep indigo to a light lavender. These shapes create a layered, geometric effect. The rest of the background is a solid, very light lavender color.

Thank You