Major Project Presentation

ON

SPENDWISE: The Expense Manager for your better future

Project Mentor:
Mrs. Sunita Gupta
Designation: Associate Professor II

Submitted By:
Kashish Arora (21ESKIT061)

Department of Information Technology
Swami Keshvanand Institute of Technology, M & G, Jaipur
Rajasthan Technical University, Kota

Session 2024–2025

Introduction of project

- This project is designed to simplify personal finance management by enabling users to track, categorize, and analyze their expenses in real time.
- **Goals:** Enable intuitive and secure expense tracking
  Visualize spending patterns using interactive charts
- **Relevance:** Reduces manual effort in maintaining records
  Encourages financial awareness and budgeting habits

Problem Statement

- Users struggle to track daily spending consistently.
- Manual tracking is tedious and error-prone.
- Existing tools often lack simplicity, smart insights, and real-time support.
- Gain real-time financial insights.
- No intelligent assistant to answer financial queries.

Literature Review

- **Existing Apps:** Money Manager, Walnut, Monefy – manual input, cluttered UI, or limited reports.
- **Limitations:** No smart querying, poor personalization, lack of budget alerts.
- **Need:** A simple, AI-integrated system for modern users.

Proposed Solution

- Real-time expense logging
- Graphical insights and monthly summaries
- Budget setting with alerts
- AI-Mitra: Ask natural questions like "How much did I spend on food?" and get real answers

Architecture Diagram

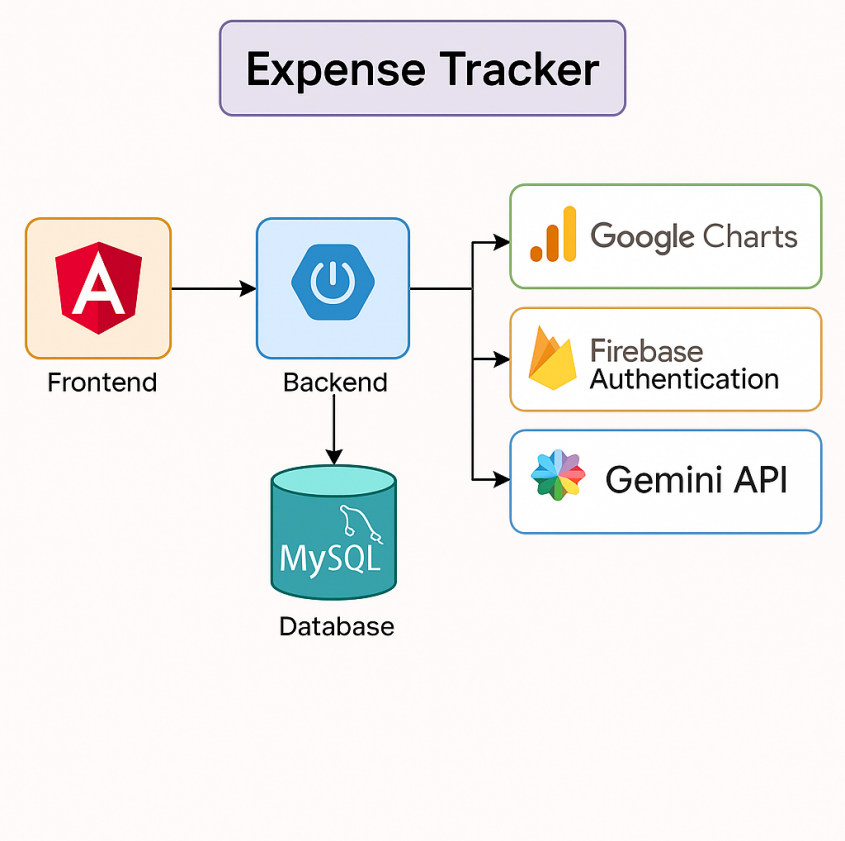

Figure 1: Architecture Diagram

Implementation Details

- Angular UI: Form-based inputs, charts, and AI chat interface
- Spring Boot APIs: CRUD for transactions, budgets, and categories
- MySQL: Stores user data and expenses
- Gemini Flask Service: Takes user queries and translates them into expense data insight
- Integration: Secure communication between modules using REST and tokens

Features and Functionality

- Add/Edit/Delete transactions
- View category-wise and time-based analytics
- Ask expense-related queries via AI-Mitra
- Responsive design across devices
- Filtration of the expenses.

Testing and Evaluation

- **Unit Tests:** Backend services and utility functions
- **Integration Tests:** API + DB interaction verified
- **AI Testing:** Checked AI-Mitra's accuracy with various queries

Result and Analysis

- Helped users track expenses more consistently
- Easy-to-read visualizations helped in budgeting

Future Work

- OCR for bill scanning
- AI-based monthly spending prediction
- Sync across multiple devices

The Conclusion

- This Expense Tracker simplifies personal finance with real-time tracking, insightful analytics, and intelligent interaction through AI-Mitra.
- It aims to become a daily financial companion promoting mindful spending.

References

- Angular Documentation
- Spring Boot Documentation
- Postman API Testing Tool

Thank You

Thank You