Smart Budget Tracker
Project Definition Document

Çağan Durgun
TOBB ETÜ
Academic Year: 2024–2025

June 2025

1 Project Name

Smart Budget Tracker

2 Project Summary

Smart Budget Tracker is an intelligent personal finance management application designed to help users monitor their spending across various categories. It provides real-time alerts when budget limits are approached, ensuring proactive financial control.

The core goal is to make budget tracking intuitive and actionable. The application delivers a clean user interface, data visualizations, and AI-driven suggestions for budget optimization. Its architecture is built to demonstrate practical implementations of multiple software design patterns.

3 Objectives

Primary Objectives

- Develop a comprehensive budget tracking system with category-based spending management.

- Implement an intelligent notification system that alerts users when budget thresholds are approached or exceeded.

- Build a user-friendly interface to facilitate rapid expense entry and clear budget visualization.

- Apply multiple design patterns effectively to enforce architectural robustness and code maintainability.

Secondary Objectives

- Provide detailed spending analytics and visual reports for user insights.
- Enable flexible budget planning and personal financial goal setting.
- Support multiple currency formats to accommodate international users.
- Ensure persistent data storage and implement backup mechanisms to maintain data integrity.

4 Scope

Included:

- Expense tracking with category, amount, and date.
- Customizable budget setting for each category.
- Real-time notifications.
- Visual dashboards and reports.
- Multi-account support.

Not Included:

- Integration with bank APIs.
- Investment or loan tracking.
- Advanced AI budgeting with machine learning models beyond basic strategy pattern logic.

5 Target Audience

- University students seeking financial awareness.
- Young professionals managing personal budgets.
- Tech-savvy individuals looking for smart, minimalist finance tools.

6 Key Features

- **Expense Tracking:** Add, edit, and delete expenses with details.
- **Budget Management:** Set and monitor category-wise limits.
- **Smart Notifications:** Real-time alerts for budget threshold breaches.
- **Dashboard:** Visual overview of expenses and remaining budget.
- **Spending Analytics:** Graphs, trends, and summary reports.
- **Recurring Expenses:** Automatically log routine expenses.
- **Data Export:** Generate CSV or PDF exports.
- **Multi-Account Support:** Manage multiple sources of spending.

7 Deliverables

- Complete and documented source code.

- Design pattern implementation documentation.

- User manual.

- Technical documentation (architecture, API specs).

- Unit and integration test suites.

- Final project presentation.

8 Acceptance Tests and Acceptance Criteria

The following criteria will be used to evaluate the success of the project:

- **Functional Success:** All core features and advanced features within the MVP scope, as defined in the *Project Definition Document*, work as expected.

- **Technical Success:** Successful implementation of at least three design patterns specified in the application architecture and effective use of the technology stack.

- **User Experience Success:** The user interface is intuitive, responsive, and usable on different devices (measurable through user testing).