

## CS19611 - MOBILE APPLICATION DEVELOPMENT PROJECT REPORT

#### EXPENSE TRACKER APP

Submitted by

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in partial fulfilment for the course for the degree of

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#### **BONAFIDE CERTIFICATE**

This project report titled "BUDGET TRACKER APP" is the bonafide work of JAYA PRAKASH (220701103), who carried out the work under my supervision. Certified further that to the best of my knowledge, the work reported herein does not form part of any other thesis or dissertation based on which a degree or award was conferred earlier.

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#### **ABSTRACT**

#### **Budget Tracker**

A budget tracker is a tool designed to help individuals or organizations manage and monitor their finances by tracking income, expenses, and savings over time. It allows users to record various income sources, categorize expenses, and set budget limits for different categories like groceries, rent, and entertainment. The tracker computes the remaining budget and savings by comparing income with expenses and can notify users if they are overspending in any category. A key feature is the ability to generate monthly reports, offering a clear summary of financial activity. Users can set financial goals, such as saving a specific amount or paying off debts, and the tracker provides analytics to show trends and budget health. It may integrate with bank APIs for automatic transaction updates or allow manual entry for those who prefer to track their spending themselves. The interface typically includes a dashboard for easy navigation and interactive features for adding or modifying entries. Advanced features may include recurring transactions, support for multiple accounts, and currency conversion for international use, all while ensuring data security through encryption and secure authentication.

#### INTRODUCTION

#### 2.1 GENERAL

Budget Tracker is a practical mobile application designed to help users effectively manage their personal finances. Built using Android Studio and Java, the app allows users to add incomes, record expenses under categories like Housing, Food, Transportation, and Others, and instantly view their surplus or deficit through a simple, interactive interface.

#### 2.2 OBJECTIVE

- Track Income and Expenses: Allow users to log and categorize their income and expenses, providing a clear overview of their financial situation.
- **Provide Detailed Reports and Analytics**: Generate monthly or custom reports, including charts or graphs, to visualize income, spending, and savings trends.
- Goal Setting and Progress Monitoring: Help users set savings or debt repayment goals, and track progress toward meeting them.
- Ensure Security: Implement secure login mechanisms, data encryption, and other security measures to protect user data.

#### 2.3 EXISTING SYSTEM

Most existing expense tracking applications are either too complex for basic users or overly simplified, lacking proper financial insights. Many apps provide only a manual ledger experience without dynamic summaries, categorized tracking, or visual representations of financial health.

#### LITERATURE SURVEY

A literature survey on budget tracking systems reveals a wide range of solutions, each tailored to different user needs and preferences. These systems have been studied extensively in the context of personal finance management, and numerous innovations have emerged over time. Here, we summarize key research findings and developments in the field.

With the advent of open banking APIs, many budget tracking systems now allow automatic synchronization with users' bank accounts and credit cards. Brynjolfsson & McAfee (2014) discuss the importance of automation in financial management tools, arguing that such features increase user engagement and reduce friction. Studies by King et al. (2019) suggest that automated tracking systems like those in Mint and Pocket Guard result in a greater understanding of financial health, as they eliminate manual entry errors and provide real-time insights into spending patterns. Integration with external financial institutions also streamlines the process, saving users time While improving accuracy.

#### PROPOSED SYSTEM

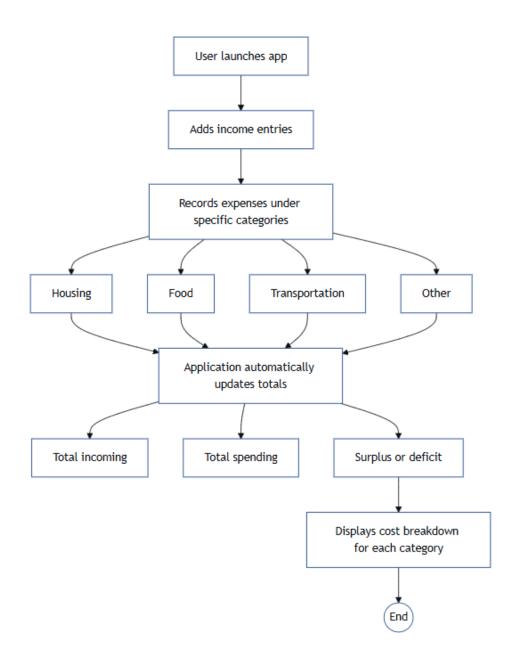
#### 4.1 SYSTEM OVERVIEW

The proposed budget tracker system is a comprehensive tool designed to help users manage their finances more effectively by tracking income, monitoring expenses, and setting financial goals. The system is built to provide a user-friendly experience through automation, real-time financial insights, security features, and personalized recommendations.

#### 4.2 SYSTEM ARCHITECTURE

The system architecture describes the structure of the budget tracker system, breaking down its various components and how they interact with each other. The architecture is designed to support scalability, security, and responsiveness. The system is divided into several layers, each responsible for specific functions, including the user interface, business logic, integration with external systems, data storage, and security.

- Responsive Design
- Visualizations
- Interactive Features
- Notifications



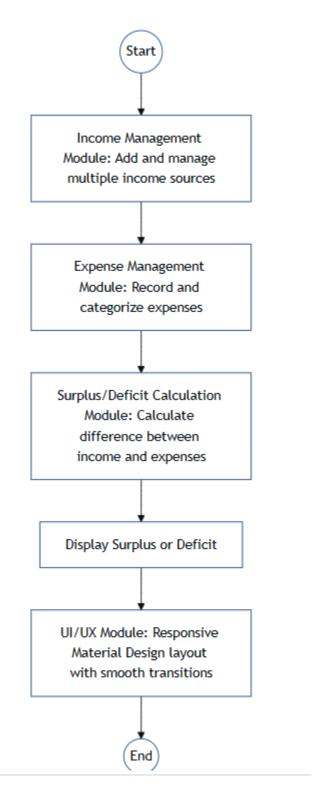
(Fig 3.1 System Architecture)

#### MODULE DESCRIPTION

## **5.1 MODULES**

Here is a summarized list of the main modules of a budget tracker system along with their purposes:
User Authentication Module
Handles user registration, login, and password management.
Ensures secure access using encryption and two-factor authentication (2FA).
Account Integration Module
Connects to bank accounts, credit cards, and wallets.
Syncs and fetches transaction data automatically.
Transaction Management Module
Records income and expenses.

#### **5.2 ACTIVITY DIAGRAM**



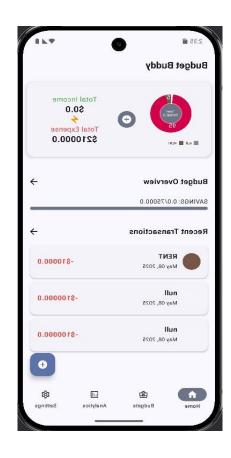
(Fig 4.1 Activity Diagram)

#### IMPLEMENTATION AND RESULTS

#### **6.1 TOOLS USED**

- Android Studio
- Java
- XML for UI
- SQLite (for storing expense amount)

#### **6.2 OUTPUT SCREENSHOTS**



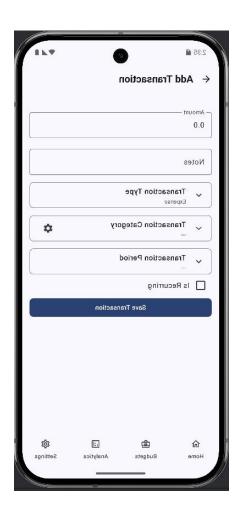


(Fig 6.1 App Home Page)

(Fig 6.2 Add Expense by Category)



(Fig 6.3 Describing Expense and Amount)



(Fig 6.4 Final Home page after inserting all expenses)

#### CONCLUSION AND FUTURE ENHANCEMENT

#### **6.1 CONCLUSION**

The budget tracker system is a powerful and user-friendly financial management tool designed to help individuals and families take control of their personal finances. By integrating core functionalities such as income and expense tracking, budget planning, goal setting, and automated notifications, the system provides users with real-time insights into their financial health.

Allow users to input transactions or check balances using voice recognition (e.g., via Google Assistant or Siri).

Investment and Asset Tracking

Add modules to monitor stocks, mutual funds, crypto, and other assets alongside daily expenses.

Family/Group Budget Sharing

Enable shared budgeting features for families or groups with shared expenses and financial goals.

#### REFERENCES

- 1. Android Developer Documentation.
- 2. Mobile UI/UX Best Practices (2024)
- 3. SQLite Documentation for Android.