

FINANCE TRACKER APPLICATION

1. Introduction

In today's fast-paced world, managing personal finances has become very important. Many people face difficulties in tracking their income and expenses on a daily basis, which often leads to poor financial planning and unnecessary spending. To overcome this problem, mobile applications can play a vital role by providing a simple and efficient way to record and monitor financial transactions.

The **Finance Tracker Application** is an Android-based mobile application developed using **MIT App Inventor**. The main objective of this app is to help users track their **income, expenses, and remaining balance** in an easy and user-friendly manner. The application allows users to enter an amount, select a category, and add it either as income or expense. Based on the entered data, the app automatically calculates the total income, total expenses, and current balance.

This project demonstrates how basic mobile application development tools can be used to create a practical and real-life solution for personal finance management.

2. Objectives of the Project

The primary objectives of the Finance Tracker application are:

- To help users **record daily income and expenses**
 - To calculate **total income, total expenses, and balance automatically**
 - To provide a **simple and intuitive user interface**
 - To store financial data locally using **TinyDB**
 - To reduce manual calculations and financial confusion
 - To encourage better **money management habits**
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3. Tools and Technologies Used

The following tools and technologies were used to develop this project:

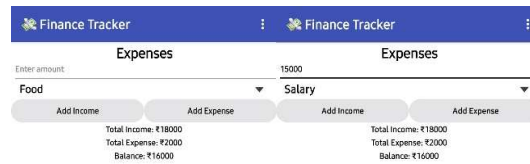
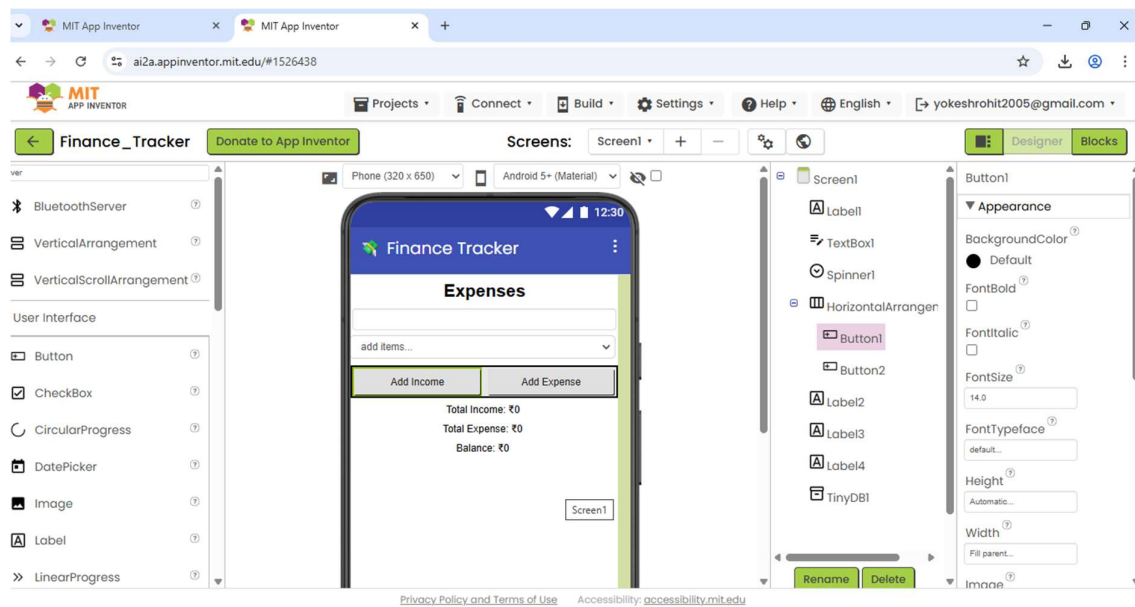
3.1 MIT App Inventor

MIT App Inventor is a visual programming platform used to develop Android applications without complex coding. It uses block-based programming, which makes app development easier and faster.

3.2 Components Used

- **Label** – To display headings and calculated values
- **TextBox** – To enter the amount
- **Spinner** – To select income or expense category
- **Button** – For adding income and expenses
- **Horizontal Arrangement** – For proper UI alignment
- **TinyDB** – To store income and expense data locally
- **Screen** – Main application interface

4. Image Titles (Captions for Documentation)



5. System Design

5.1 User Interface Design

The user interface of the Finance Tracker app is simple and clean. The main screen includes:

- Application title: *Finance Tracker*
- Input field to enter the amount
- Dropdown (Spinner) to select category such as Food or Salary
- Buttons to add income or expense
- Labels to display total income, total expense, and balance

The UI is designed to be user-friendly so that even beginners can use the app without difficulty.

5.2 Application Workflow

1. User enters the amount in the text box
2. User selects a category from the spinner
3. User clicks **Add Income** or **Add Expense**
4. The app updates totals using stored values
5. The balance is calculated and displayed

6. Working of the Application

When the application starts, all values are loaded from **TinyDB**. Initially, the total income and total expense are set to zero.

- If the user clicks **Add Income**, the entered amount is added to the total income.
- If the user clicks **Add Expense**, the entered amount is added to the total expense.
- The balance is calculated using the formula:

`Balance = Total Income - Total Expense`

All values are updated instantly and shown on the screen. The data remains saved even after closing the app.

7. Features of the Application

- Simple and easy-to-use interface
- Real-time calculation of balance
- Category selection using spinner

- Persistent data storage using TinyDB
 - Lightweight and fast application
 - No internet connection required
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8. Advantages

- Helps users manage money efficiently
 - Saves time and avoids manual calculations
 - Useful for students and working professionals
 - Easy to modify and extend
 - Beginner-friendly development platform
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9. Limitations

- No graphical representation (charts/graphs)
 - Data is stored only on the device
 - No date-wise transaction history
 - Single-user application
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10. Future Enhancements

The following features can be added in future versions:

- Monthly and yearly expense reports
 - Graphs and charts for better analysis
 - Cloud database integration
 - User login system
 - Export data to PDF or Excel
 - Category-wise expense breakdown
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11. Conclusion

The **Finance Tracker Application** successfully achieves its goal of helping users track their income and expenses effectively. By using MIT App Inventor, a fully functional Android application was developed with minimal complexity. This project demonstrates how mobile applications can be used to solve real-life problems in a simple and efficient way.

The app is suitable for personal use and can be further enhanced with advanced features. Overall, this project provides a strong foundation for understanding mobile app development and personal finance management.