

Design Document

Project Description

Timi Time Accounting is a streamlined financial management application designed for personal and family bookkeeping. Developed in response to a household need for better financial tracking, Timi helps users clearly understand their income and expenses. By recording daily spending, tracking income sources, and calculating savings, the app enables users to control their finances and improve their quality of life.

The application supports multi-account management, allowing users to categorize expenses and automatically calculate monthly surpluses. Timi adopts a MongoDB-based storage system for reliable data persistence and features a minimalist interface for ease of use, encouraging good financial habits.

Core Features

1. Income & Expense Management

- **Real-time Expense Tracking:** Enables users to log daily expenses with customizable categories, such as dining, shopping, rent, and utilities, for better financial awareness.
- **Income Management:** Supports recording multiple income sources, including salary, investment returns, and freelance earnings, ensuring a comprehensive financial overview.
- **CRUD Operations:** Allows users to add, view, update, and delete financial records, facilitating efficient bookkeeping.

2. Financial Overview and Budgeting

- **Spending Trends Analysis:** Provides visual representations of income and expense trends over a selected period, helping users identify spending patterns.

- Savings Calculation: Automatically calculates and displays savings based on income and expenses, enabling users to set realistic financial goals.
3. Data Persistence and Multi-Account Management
- MongoDB-based Storage: Ensures reliable and structured data storage, with two primary collections for accounts and transaction records.
 - Multi-Account Support: Allows users to create and manage multiple financial accounts, separating personal and household expenses for better organization.

User Personas

Han - Struggling Student (26 years old, financially conscious)

Goals:

1. Wants to understand exactly where money is going.
2. Aims to set savings goals for future investments or homeownership.
3. Uses intelligent financial analysis to optimize spending habits and reduce unnecessary expenses.

Pain Points:

1. Previously relied on intuition for saving money without a clear financial plan.
2. Often realizes overspending only at the end of the month.

Jack - Family Finance Manager (35 years old, married with children)

Goals:

1. Tracks household income and expenses, including mortgage, child education costs, and other family expenses.
2. Shares financial records with a spouse for better transparency.
3. Plans a family budget to allocate expenses and savings wisely.

Pain Points:

1. Household expenses are scattered, making it difficult to track total spending accurately.

2. Needs a system that supports multiple accounts and shared access.
3. Wishes to avoid financial disputes by maintaining clear and transparent records.

Lisa - Freelancer & Entrepreneur (30 years old, self-employed)

Goals:

1. Manages irregular income streams from multiple projects.
2. Tracks business expenses separately from personal spending.
3. Analyzes income trends to plan for slow business periods.

Pain Points:

1. Unpredictable income makes budgeting difficult.
2. Needs a system that categorizes personal and business transactions efficiently.
3. Lacks financial insights to ensure steady savings for taxes and future investments.

User Stories

1. Han – Struggling Student

As a financially conscious student, I want to:

Track my daily expenses in real-time, so that I can understand where my money is going.

Categorize my spending habits, so that I can identify areas where I can cut costs.

Set and track savings goals, so that I can plan for future investments or homeownership.

2. Jack – Family Finance Manager

As a family finance manager, I want to:

Track household income and expenses, so that I can manage finances efficiently.

Share financial records with my spouse, so that we can maintain financial transparency.

Check period income and expense reports to visually display spending trends.

Lisa – Freelancer & Entrepreneur

As a freelancer and entrepreneur, I want to:

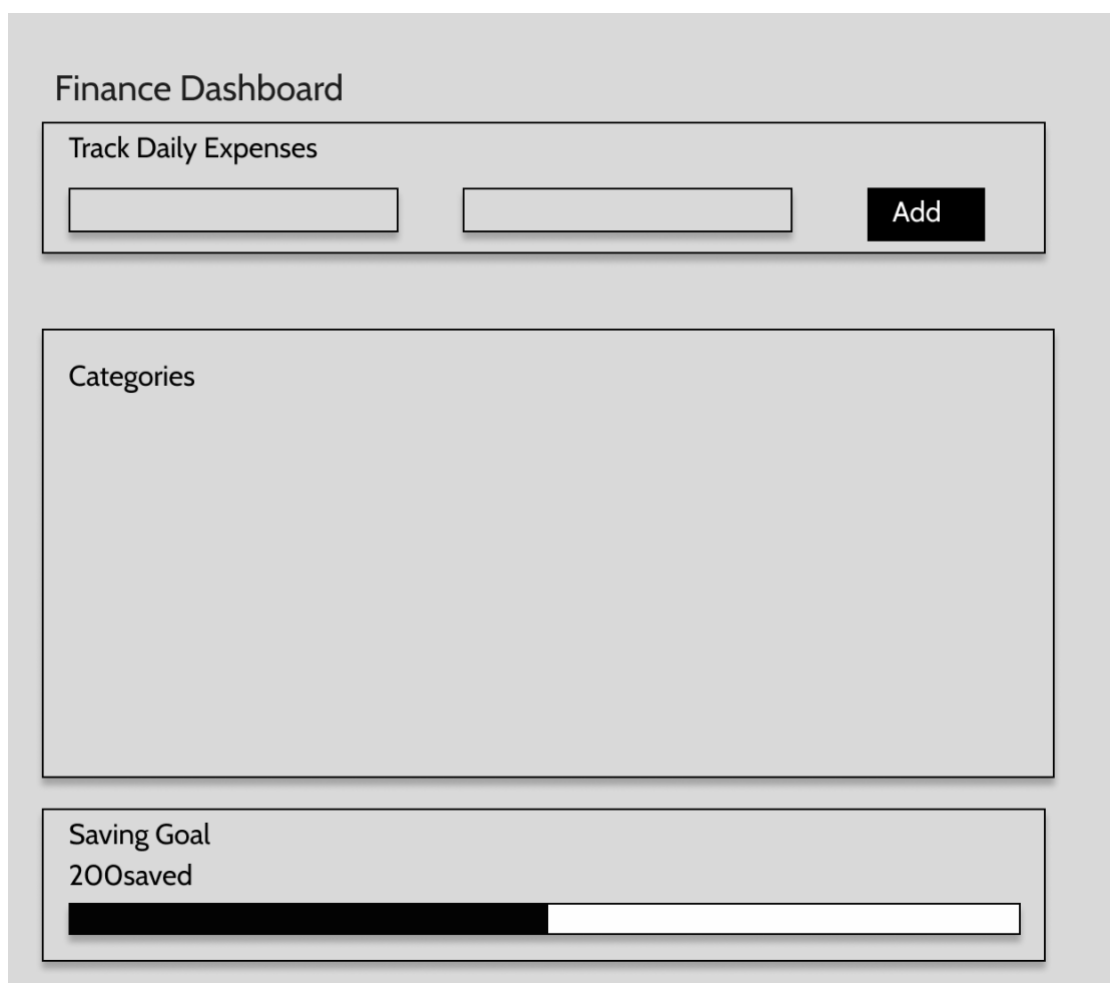
Track irregular income from multiple projects, so that I can accurately update my financial records.

Modify unclear income entries, so that I can maintain precise financial documentation.

Delete duplicate income or expenses, so that I can ensure the accuracy of my financial records.

Design Mockup

Link: <https://www.figma.com/design/7wlJFyCrYhhax9ZyISNC7m/Timi-Time-Accounting?node-id=0-1&t=ESQBWjVGXJubUBrk-1>



The mockup shows a 'Finance Dashboard' with three main sections. The top section, 'Track Daily Expenses', contains two input fields and an 'Add' button. The middle section, 'Categories', is a large empty box. The bottom section, 'Saving Goal', shows '200saved' and a progress bar that is approximately 50% full.

Finance Dashboard

Track Daily Expenses

Add

Categories

Saving Goal
200saved

1. Track Daily Expenses in Real-Time: A section with input fields allows users to log

daily spending, helping Han understand where his money is going.

2. Categorize Spending Habits: A dedicated “Categories” area enables Han to classify expenses, making it easier to identify areas where costs can be reduced.
3. Set and Track Savings Goals: A progress bar visually represents saved amounts, allowing Han to plan for future investments or homeownership.

Family Finance Dashboard

Track Income & Expenses

income

Account

Add

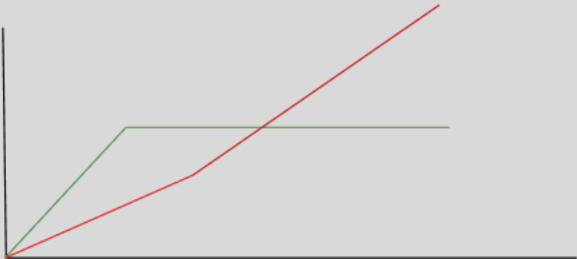
Transaction

Accounts Overview

#1

#2

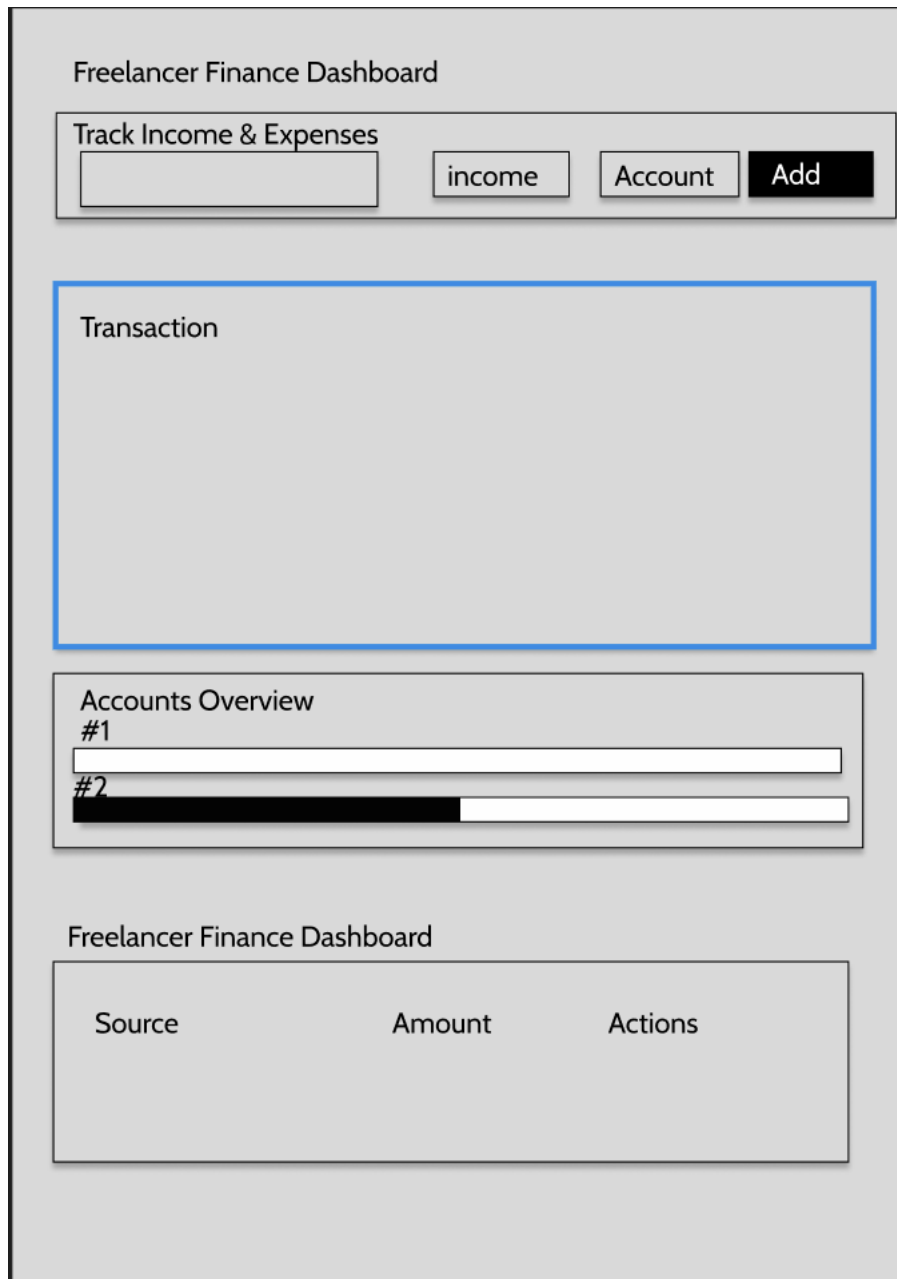
Income & Expense Report



1. The section labeled "Track Income & Expenses" allows users to enter income and expenses with buttons for categorization (income/account) and an "Add" button to record transactions.
2. The "Transaction" section provides a space to display recorded financial data.

Although the mockup does not explicitly indicate a sharing feature, it assumes visibility for both users (e.g., a spouse).

3. The "Income & Expense Report" graph visually represents income (green) and expenses (red) over time, helping the user analyze financial trends



The mockup shows a 'Freelancer Finance Dashboard' with several sections. At the top, there's a 'Track Income & Expenses' section with a text input field, a dropdown menu currently showing 'income', an 'Account' dropdown, and an 'Add' button. Below this is a large empty box labeled 'Transaction'. The next section is 'Accounts Overview', which lists two accounts: '#1' with a full-width white progress bar, and '#2' with a partially filled black progress bar. At the bottom, there's another 'Freelancer Finance Dashboard' header above a table with three columns: 'Source', 'Amount', and 'Actions'.

Source	Amount	Actions
--------	--------	---------

1. The "Track Income from Multiple Projects" section allows Lisa to input an income source (e.g., a freelance gig, a client payment, or a project) and specify the amount.
2. The "Modify & Delete Income Entries" section displays a table of recorded

income with editable fields

3. The table includes a "Delete" button next to each entry, allowing Lisa to remove duplicate or incorrect records instantly.