

Project Statement: Python Command-Line Finance Tracker

1. Problem Statement

Many individuals and small households lack a simple, accessible, and free tool for effectively tracking their personal income and expenditures. Relying on complex spreadsheets or expensive, feature-heavy subscription services often leads to inconsistency in tracking, poor data visibility, and difficulty in maintaining consistent budgets. The core problem is the need for a **lightweight, private, and efficient method** to record, categorize, and review financial transactions to gain better control over personal finances.

2. Scope of the Project

The Finance Tracker will be developed as a **Command-Line Interface (CLI) application using Python**.

The project scope is strictly limited to personal finance management for a single user, focusing on core tracking capabilities.

In Scope:

- Transaction input (income and expenses).
- Category management (e.g., groceries, rent, salary).
- Local data storage (using CSV or JSON files).
- Basic financial reporting and summaries.

Out of Scope (For Phase 1):

- Integration with external bank APIs or financial services.
- Web-based User Interface (UI).
- Multi-user or complex permission management.
- Advanced features like stock tracking or tax calculation.

3. Target Users

The primary target users are individuals who:

- **Students and Young Professionals:** Need a simple way to manage monthly budgets and track entry-level income and expense streams.
- **Individuals Seeking Simplicity:** Prefer a non-cloud, privacy-focused tool over complex web applications.
- **Developers and CLI Enthusiasts:** Are comfortable interacting with applications via the command line.

- **Small Households:** Require a basic tool for tracking joint household expenses without needing complex collaborative features.

4. High-Level Features

The application will include the following core functionalities:

Feature Name	Description
Transaction Logging	Allow users to quickly add new income or expense transactions, including amount, date, description, and category.
Category Management	Ability to define, list, and assign custom categories to transactions (e.g., "Food & Drink," "Utilities," "Investment").
Summary Reporting	Generate reports summarizing total income, total expenses, and net balance over specified time periods (e.g., monthly, weekly).
Categorical Breakdown	Display a clear breakdown of spending by category, showing users where their money is going.
Data Persistence	Automatically save all transaction data locally and load it upon application startup to ensure data integrity.
Data Export	Provide an option to export all stored data into a readable format (e.g., CSV) for external analysis.