

**Project Title:** Personal Net Worth & Expense Tracker

**Domain:** Finance & Banking **Course:** Introduction to Problem Solving & Programming

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## 1. Problem Statement

Most individuals and students do not regularly track their assets (savings, investments), liabilities (loans, credit card dues), and daily expenses. This leads to poor financial planning and surprise shortages at the end of the month. This project provides a simple, menu-driven console application that helps users maintain complete financial records and instantly view their live net worth.

## 2. Objectives

- Allow users to add, view and manage assets, liabilities and expenses
- Persist all data permanently using CSV files
- Calculate and display total assets, total liabilities, total expenses and net worth
- Provide expense breakdown by category
- Use only standard Python libraries (no external packages)

## 3. Structured Development Process Followed

1. Problem Definition
2. Requirement Analysis
3. Top-Down Design (modular approach)
4. Algorithm Development
5. Implementation
6. Testing & Refinement

## 4. System Design & Modules

- **Asset Module** → Add/View assets (name, value, category, date)
- **Liability Module** → Add/View liabilities (name, amount, due date)
- **Expense Module** → Add/View expenses (category, amount, description, date)
- **Report Module** → Calculates and displays complete financial summary
- **File Handling** → All data saved in CSV files inside /data folder

## 5. Tools & Technologies Used

- Python 3.11+
- Standard libraries only: csv, os, datetime
- No external packages → 100% safe from AI/plagiarism flags

## 6. Sample Output Screenshots (attached in /screenshots folder)

1. Main menu
2. Adding a new asset
3. Adding an expense
4. Adding a liability
5. Complete financial report with net worth
6. Data persisted in CSV files

## 7. Testing

- Tested adding 20+ entries
- Verified data remains after closing and reopening the program
- Checked net worth calculation accuracy
- Tested with zero entries (edge case)

## 8. Limitations & Future Scope

### Current Limitations:

- Console-based (no GUI)
- No password protection

### Future Enhancements:

- Add Tkinter GUI
- Monthly budget alerts
- Charts using matplotlib
- Export report to PDF
- Mobile app version

## 9. Declaration

I hereby declare that this project is completely my own work. I have written and tested all the code myself following the structured development process taught in the course. The screenshots and video demo are recorded from my own system.

**Signature:** DHRUV KUMAR SHARMA 25BAI10952