EXPENSE TRACKER

FULL PROJECT REPORT

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1. Introduction

Daily expenses, especially small ones, are often forgotten, making it difficult for individuals to understand where their money goes. To solve this real-world problem, this project presents a **simple Python-based Expense Tracker**.
It allows users to:

- Add an expense (name + amount)
- View all recorded expenses
- Exit safely

This project uses fundamental programming concepts such as **loops, lists, conditions, input/output** and follows problem-solving logic suitable for a first-year engineering course.

2. Problem Statement

People commonly lose track of daily expenditures due to lack of recording. This leads to confusion during budgeting and financial planning.
Therefore, there is a need for a simple tool that:

- Records expenses instantly
- Displays them on demand

A minimal, user-friendly Python console application can effectively solve this.

3. Functional Requirements

1. The system must allow input with name an expense.
2. The system must display all saved inputs
3. The system must run until the user chooses to exit.
4. The system must accept user input and process it accurately.

4. Non-Functional Requirements

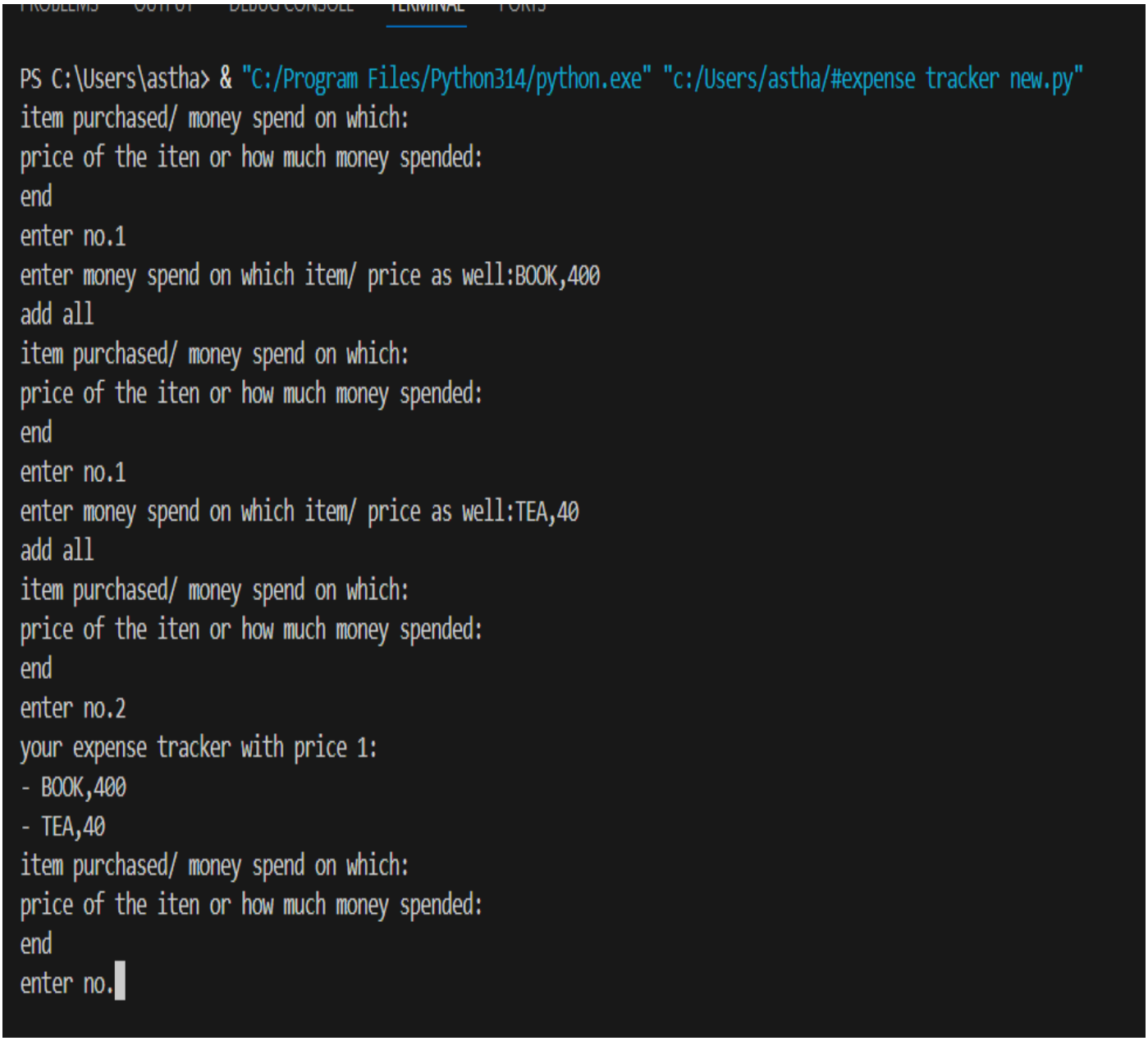
1. **Usability:** Easy for beginners.
2. **Simplicity:** Clean interface, no unnecessary features.
3. **Performance:** Runs instantly with minimal memory.
4. **Portability:** Works on any system with Python installed.
5. **Reliability:** Stores expense data during execution.

5.System Architecture

User → Menu → Input Handling → Data Storage (Lists) → Output Generation

The system uses two Python lists to maintain names and amounts. A loop handles continuous operations, and conditional statements direct the flow.

6. Screenshots / Results



7. Challenges Faced

- Understanding list indexing
- Avoiding infinite loop mistakes
- Handling invalid inputs
- Learning GitHub for code publishing

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8. Learnings & Key Takeaways

- Translating real-world problems into programming logic
- Using loops, lists, and conditions effectively
- Writing clean, readable code
- Basic usage of GitHub and source control
- Designing simple software architecture

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9. Future Enhancements

- add the prices
- Add date/time to each entry
- Add category (Food, Travel, Shopping, etc.)
- Store records in a file/database
- Add graphs for visual expense analysis
- Build a GUI version using Tkinter or web technologies

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10. References

- Python Official Documentation
- Course Materials (Introduction to Problem Solving)
- Classroom Notes
- VS Code & GitHub Documentation
