Expense Tracker – Project Report

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1. Introduction

This project consists of developing a simple Expense Tracker using the Python programming language.

The main goal of the program is to help users record, manage, and analyze their daily expenses

in an organized way. The project demonstrates several important programming concepts such as:

- File handling (JSON)

- Functions

- Loops and conditions

- Data structures (lists and dictionaries)

- Basic data analysis

- User interaction in the console

2. Project Description

The Expense Tracker allows the user to:

• Add a new expense (amount, category, date)

• View all recorded expenses

• Display statistics (total spending, biggest expense, average expense)

• Delete an expense by selecting its number

• Save and load all data automatically using a JSON file

The project ensures that all data remain saved even after closing the program.

3. Objectives of the Project

1. Learn to store data externally using JSON.

2. Practice modular programming with multiple functions.

3. Perform simple data analysis.

4. Develop an interactive console-based application.

4. Technologies and Tools Used

- Python 3

- JSON file format

- Datetime library

- Console-based interface

5. How the Program Works

1. When the program starts, it loads all saved expenses from expenses.json.

2. It displays a menu where the user selects an action.

3. The user can add, view, analyze, or delete expenses.

4. Every modification is saved immediately to the JSON file.

5. The program continues running until the user selects Exit.

6. Usefulness of the Project

The Expense Tracker is useful because it:

- Helps users control their spending habits

- Organizes financial data

- Provides useful statistics

- Saves data permanently

- Is simple and easy to use

- Can be expanded into a more advanced application

7. Conclusion

This project allowed me to practice Python fundamentals while creating a functional

and meaningful application. It helped me learn how to structure code, manage data,

and interact with users. The Expense Tracker is simple but demonstrates solid programming logic.

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