

BUDGET PLANNER FOR STUDENTS PROJECT REPORT

Project Title: Budget Planner For Students

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Introduction

This project is a **Personal Budget Planner**, an interactive command-line tool developed in Python. It is designed to help users, particularly students, manage their finances effectively. The tool allows for the logging of income and expenses, calculates total savings, and provides warnings if a user is over budget. A key feature of this project is its ability to generate clear and insightful visualizations of the user's financial data, making it easy to understand spending habits and progress towards financial goals. 💰

Tools Used

- **Python:** Used for all core logic, including data input, processing, and calculations.
- **Pandas:** Employed for organizing the financial records into a structured DataFrame, which simplifies data manipulation and aggregation.
- **Matplotlib:** Used to create a suite of data visualizations, including bar charts and pie charts, to represent the financial data graphically

Project Overview

The program operates in an interactive mode where the user can:

1. **Set Up a Budget:** Define a budget period (e.g., "2024-09"), a currency symbol, and an optional savings goal.
2. **Log Transactions:** Enter income and expense transactions one by one, specifying the category, amount, and type.
3. **Get Real-Time Feedback:** Receive instant updates on total income, expenses, and savings after each entry.
4. **Generate a Final Report:** Once all entries are made, the tool produces a comprehensive summary, a detailed CSV report, and a set of visual charts to analyze the financial activity for the period.

How Students Can Use This Tool

This Budget Planner is an excellent tool for students to develop financial literacy and discipline. Here's how it can be used:

1. Track Monthly Spending

Students can log all their daily expenses—from food and transport to books and entertainment. By categorizing each expense, they can get a clear picture of where their money is going.

2. Manage Income Sources

Whether it's an allowance, a part-time job, or a scholarship, students can log all their income sources to see their total monthly cash flow.

3. Set and Achieve Savings Goals

A student can set a specific savings goal, like saving for a new laptop or a trip. The tool helps them track their progress, motivating them to stick to their budget.

4. Make Informed Financial Decisions

By reviewing the final summary and visuals, students can identify areas where they are overspending and make adjustments. For example, if the "Food" category is taking up too much of their budget, they might decide to cook more instead of eating out.

Input Data

- ❖ Month Label: 2025-08 (default)
- ❖ Currency: ₹ (default)
- ❖ Savings Goal: ₹2,000

Transactions Entered: | Category | Amount | Type | |

Salary | ₹40,000 | Income | | Rent | ₹15,000 | Expense | |

Food | ₹5,000 | Expense | | Gym | ₹2,000 | Expense | |

Library | ₹4,000 | Expense | | Parlour | ₹5,000 | Expense | |
Parents | ₹4,000 | Expense | | Donation | ₹4,000 | Expense |

Results and Summary

After processing the input data, the program generated the following summary and detailed report.

Final Summary Table

Metric	Amount
Monthly Income	₹40,000
Total Expenses	₹39,000
Final Savings	₹1,000

Savings Goal Status Not Met (Goal was ₹2,000)

Category-wise Expense Breakdown

- Rent: ₹15,000 (38.5%)
- Parlour: ₹5,000 (12.8%)

- Food: ₹5,000 (12.8%)
- Parents: ₹4,000 (10.3%)
- Donation: ₹4,000 (10.3%)
- Library: ₹4,000 (10.3%)
- Gym: ₹2,000 (5.1%)

CSV Report Content

The program generated a CSV file (budget_2025-08.csv) with the following data:

Date,Category,Amount,Type

2025-08-22,Salary,40000.0,Income

2025-08-22,Rent,15000.0,Expense

2025-08-22,Food,5000.0,Expense

2025-08-22,Gym,2000.0,Expense

2025-08-22,Library,4000.0,Expense

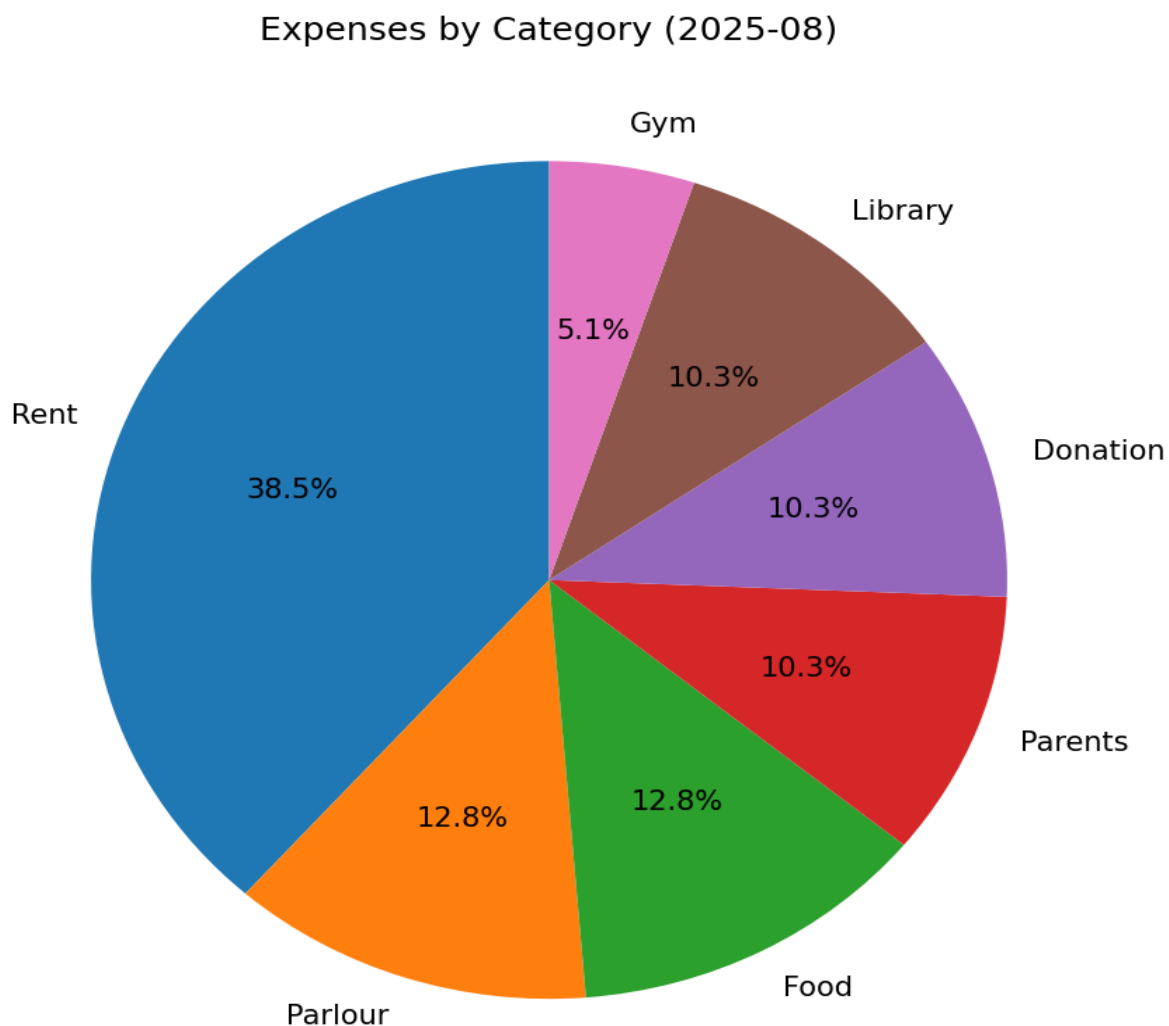
2025-08-22,Parlour,5000.0,Expense

2025-08-22,Parents,4000.0,Expense

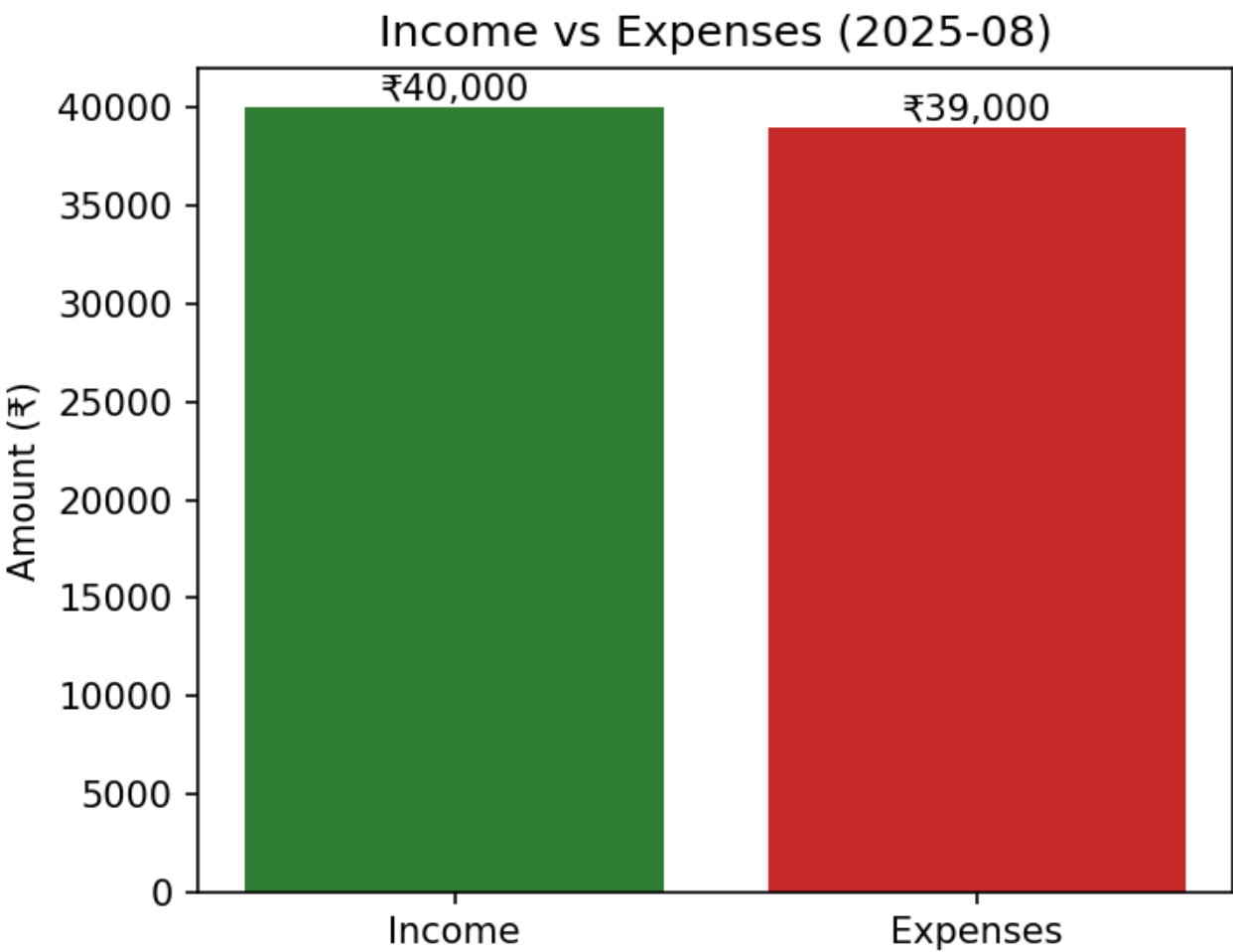
2025-08-22,Donation,4000.0,Expense

Visualizations

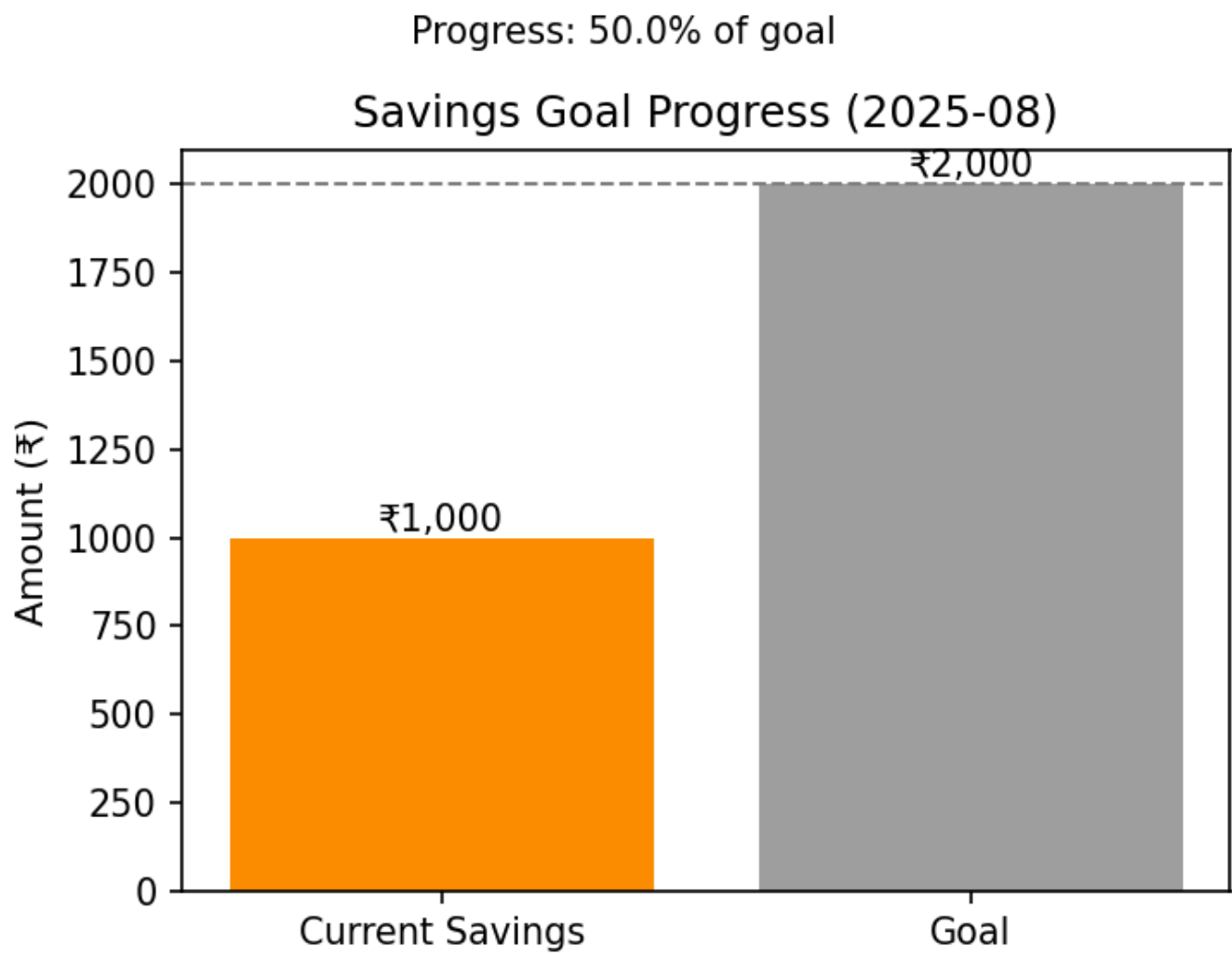
1. Expenses by Category (Pie Chart) This chart shows the proportion of total expenses for each category. As seen in the data, **Rent** is the largest expense category, making up 38.5% of the total spending.



2. Income vs. Expenses (Bar Chart) This chart provides a clear comparison between the total income (₹40,000) and total expenses (₹39,000), visually confirming the small savings margin



3. Savings Goal Progress (Bar Chart) This chart compares the actual savings (₹1,000) against the set goal (₹2,000), clearly indicating that the savings goal was not met for this



Conclusion

The project successfully processed the user-defined financial data. It performed calculations to determine total income, expenses, and savings, and compared these against a predefined goal. The final output, consisting of a detailed text summary, a CSV file, and multiple informative charts, effectively summarizes the user's financial status for the month, demonstrating the utility of Python for practical data analysis and visualization tasks.

THANK YOU