

Python mini project chat: Expense tracker

Done by

Ayush waghmare(PRN:25030421006)

Navdeep Singh(PRN:25030421027)

Vivaan Kriplani(PRN:25030421049)

Yousif Alton(PRN:25030421050)

Submitted to
Dawa Lepcha
Professor

Abstract

- ▶ as it Records and manages user expenses efficiently, with graphical representation and with easy-to-use interface
- ▶ gives the user Allowance to categories his spending like in daily monthly, annual
- ▶ Helps user track and analyse expense, make informed decision and improve financial planning.

Introduction

- ▶ Managing finances is increasingly important
- ▶ Many struggle with manual daily expense tracking
- ▶ Motivation: create a digital solution for better spending awareness
- ▶ Objective:
- ▶ Record and categorize expenses
- ▶ Visualize spending
- ▶ Enable data accurate & ease of use

Problem statement

- ▶ Manual methods re error-prone and time-consuming.
- ▶ Difficult to maintain budget or savings goals
- ▶ Expense tracker provides a digital, user-friendly tool
- ▶ As a hosteller, we personally face difficulties in managing the monthly allowance. Small, frequent expenses on food, transport, or essentials often go unnoticed, and by the end of the month, it becomes hard to identify where most of the money was spent. This lack of awareness affects my ability to plan and save efficiently.
- ▶ To address this issue, the **Expense Tracker** application was developed. It helps users digitally record their expenses, categorize them into daily, monthly, and annual groups, and visualize their spending patterns through graphs and summaries. This promotes better financial awareness, efficiency, and control over personal spending.

Literature review/ related work

- ▶ Existing tools: spreadsheets, finance apps
- ▶ Feature considered: categorization, data entry, visualization, budgeting
- ▶ Need: simplified interface with better visual insight for students and individuals.

Methodology

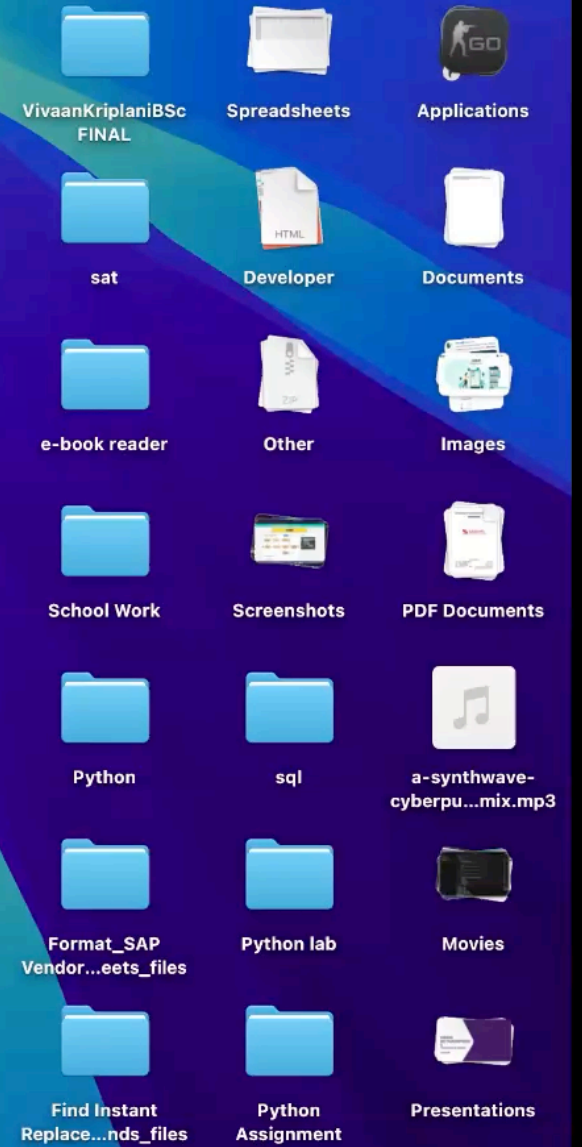
- ▶ Phases: need assessment → design → implementation → testing
- ▶ Technology :
- ▶ Backend: python
- ▶ Frontend:HTML/CSS,Pyscript
- ▶ Data model: expenses stored with id, amount, category, description, date

System workflow

- ▶ User sets monthly budget
- ▶ Records expenses by category(food, shopping, transport, etc.)
- ▶ Views expenses and checks budget status
- ▶ System provides real-real time alerts for overspending

Implementation

- ▶ Developed in visual studio code
- ▶ Backend: handles user input, storage, calculations, budget alerts.
- ▶ Frontend: simple, emoji-enhanced interface; tables for expenses
- ▶ Visualization: pie charts for category distribution
- ▶



Result & analysis

Here is the presentation of the program, given below is the expense of the hosteller from his annual expense here.

Category	Description	Amount(in rupee)
Food	Blinkit order	1,200
Shopping	Amazon purchase	2,500
Miscellaneous	Hostel snacks	2,245

Interface

```
> hi
Welcome to Expense Tracker Bot |
Enter your monthly budget (₹):
> 25000
Budget set to ₹25,000.00

MENU

1 Add Expense
2 View All Expenses
3 Check Budget Status
4 Exit

Enter your choice (1-4):
```

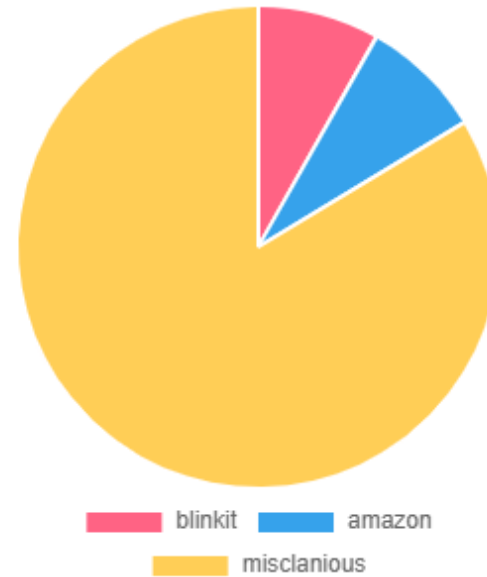
```
Monthly Budget : ₹25,000.00
Total Spent : ₹30,640.00
Remaining : ₹-5,640.00

Warning! You have exceeded your budget!
```

The output

Data visualization

Expense Distribution



Built with ❤️ using PyScript

Benefits & application

- ▶ For users: awareness, budget control, time savings, data privacy, free to use
- ▶ For institution: expense tracking, category analytics, reporting
- ▶ Individual consumers, freelancers, students, small business

Limitation & recommendations

- ▶ Data stored locally
- ▶ No income tracking
- ▶ Limited o basic analytics & charts
- ▶ User responsible for backup
- ▶ Future: cloud sync, income tracking, advanced analytics

References

- ▶ Python and matplotlib official documentation
- ▶ W3schools
- ▶ PyScript guide
- ▶ GitHub open-source projects