# Python mini project chat: Expense tracker

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# 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 expeneses
- 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

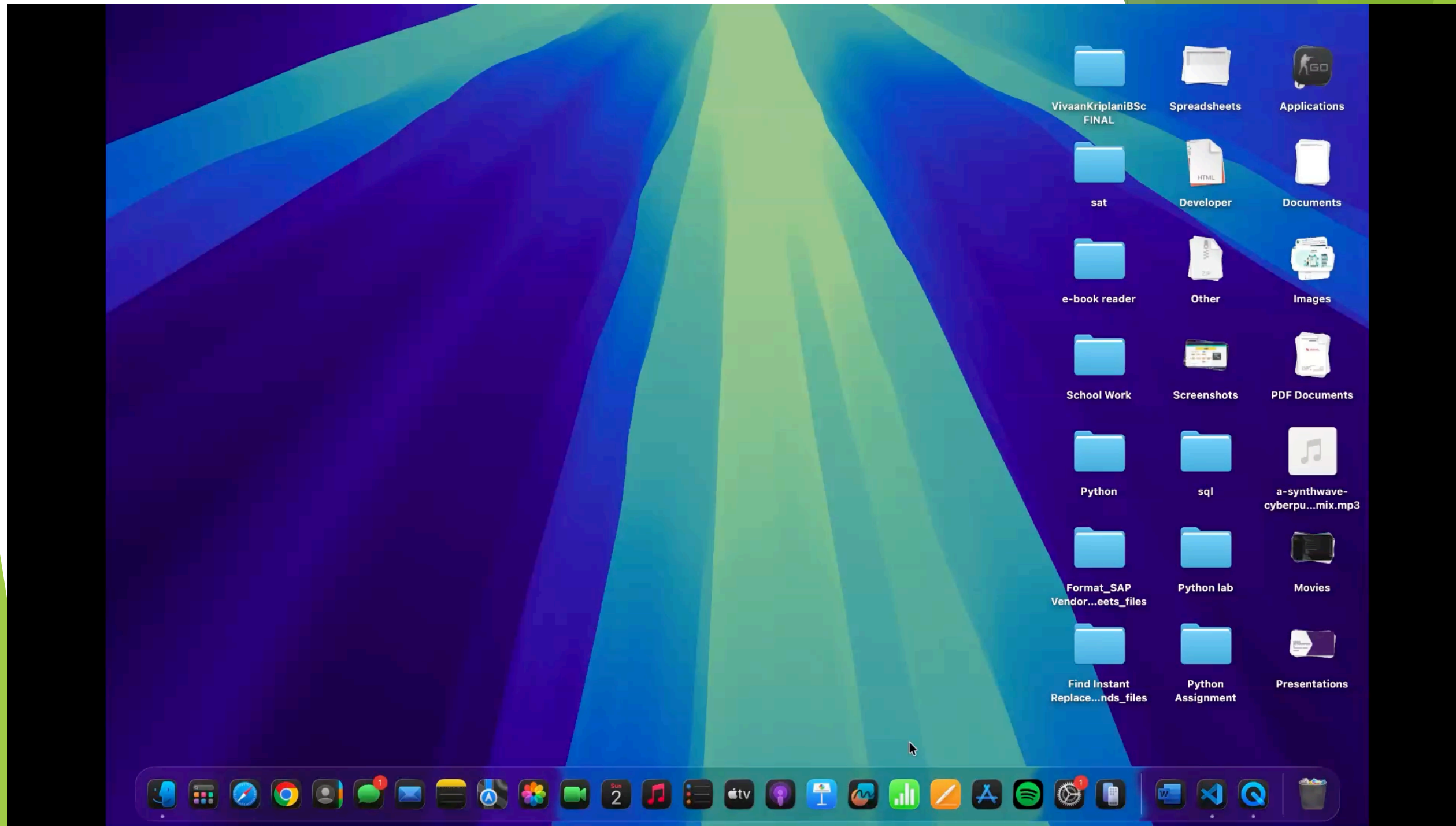
- Phases: need assessment → design → implementation → testing
- Technology :
- Backend: python
- Frontend:HTML/CSS,Pyscript
- Data model: expenses stored with id, amount, category, description, date

# 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
-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Python lab
Movies
Find Instant Replace...nds_files
Python Assignment
Presentations

Result & analysis

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

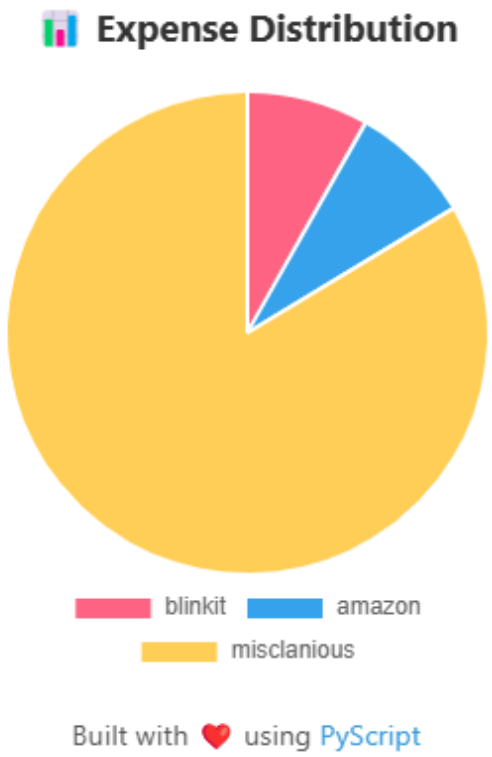
| Category | Description | Amount(in rupee) |
|---|---|---|
| Food | Blinkit order | 1,200 |
| Shopping | Amazon purchase | 2,500 |
| Miscellaneous | Hostel snacks | 2,245 |

## 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):
```

## Data visualization




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

Warning! You have exceeded your budget!
```

## The output

# Benefits & application

- For users: awarness, budget control, time savings,data privacy, free to use
- For institiution: 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