

WALLET BUDDY



Track Every Penny, Save Every Dollar !



GITHUB REPO



LIVE DEMO



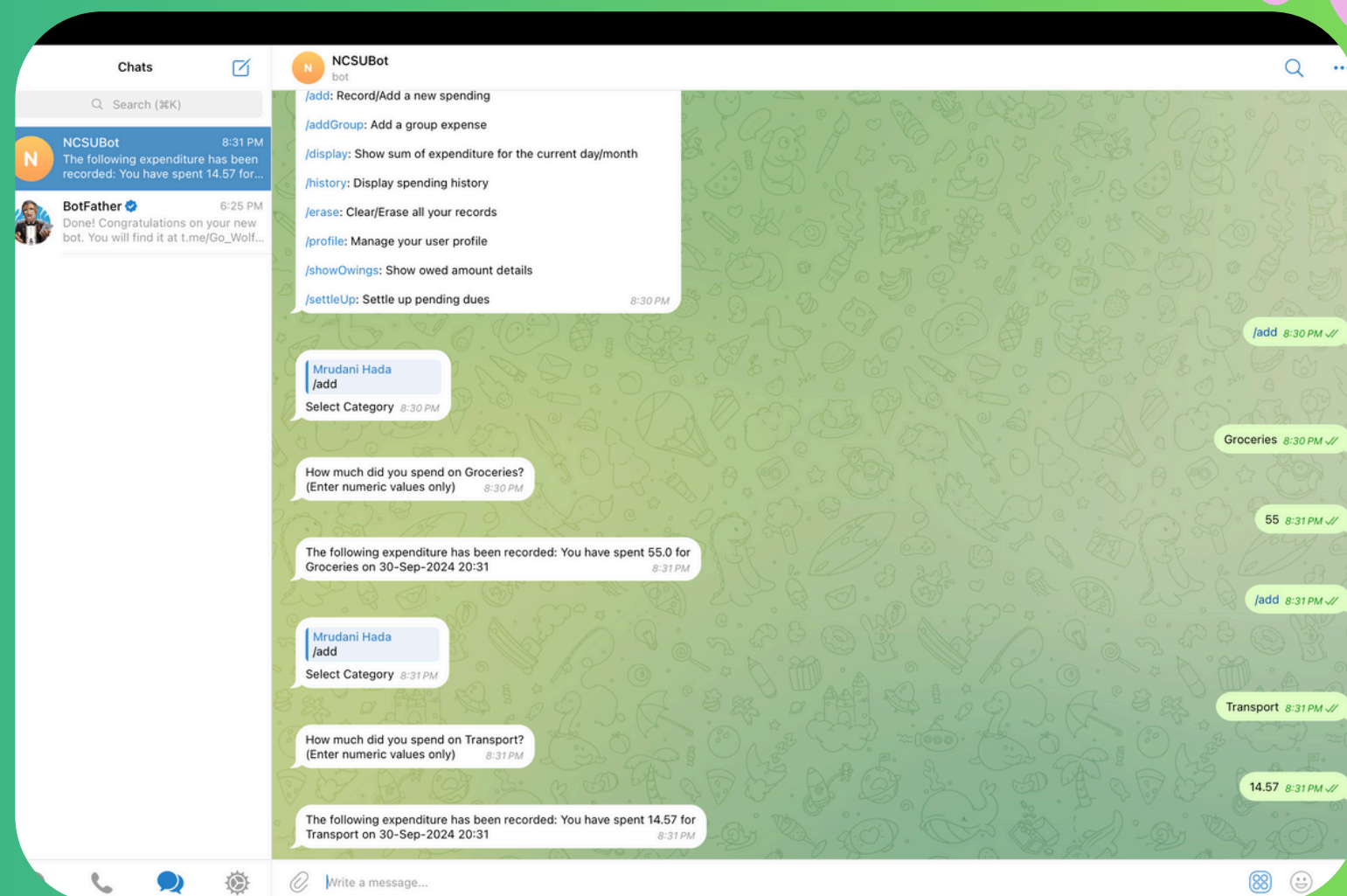
About

Tired of juggling multiple apps just to track your expenses? Our solution uses Telegram, a tool you already love, to make managing personal and group expenses easy. With simple commands, you can track spending, split costs with friends, and keep everything organized—no extra apps needed!



What's New ?

- **Effortless Expense Tracking** : Log your daily personal and group spending easily and split costs with friends seamlessly.
- **Stay Informed about Your Finances** : Quickly check your daily and monthly spending totals. Visualize your expenses with engaging charts and graphs to understand your habits better.
- **Profile and Records Management** : Keep your information up to date so friends can easily share expenses with you, and smoothly erase your transaction history ensuring smooth transactions.
- **Debt Tracking and Settling Up Made Simple**: Know who owes you money and what you owe others hassle free. At the time of payback, keep your record organized readily.



What makes the current Wallet Buddy special ?

The previous version of Wallet Buddy was less efficient and had limited functionalities for the users. The current version aims to keeping track of expenses and dividing costs among friends easy and eliminate doing it manually.

- **Scalability issue resolved**: They incorporated MongoDB as the database system and migrated from the traditional file-based system. This transition made the new database more scalable than the previous one. It was analysed that for smaller databases with fewer and newer users, accessing a server can make MongoDB slower than a simple file system. However, as the number of records and users grows, MongoDB will clearly outperform the file system. It can seamlessly handle increases, whether data expands exponentially. MongoDB can achieve this due to its non-relational and distributed architecture.
- **Encryption made stronger**: The previous file system didn't offer encryption, leaving data exposed to potential attacks and breaching of data security. Shifting to MongoDB provides robust security features that protect sensitive information, significantly reducing vulnerability.
- **Enhanced Data Analysis**: Additional expense chart types for providing users with a clearer understanding of their expenses were added in this version. Box plots were added as they offer insights into the distribution and variability of spending, while pie charts visually break down expenses into categories, making it easier to see how funds are allocated at a glance.
- **Display the amount owed by each member**: An important feature that was missing in the first version of WalletBuddy that users couldn't easily see what they owed to others or what others owed them is added in the newer version. It has been addressed with the new command, `"/showOwings"`, allowing users to effortlessly track their debts and credits with friends.
- **Settling expense facility added**: They have also introduced a new feature that allows users to settle up their pending expenses with each-other. After making a payment, a record of the transaction is kept to track the payment, and the amount owed is automatically reduced. Once the entire amount has been paid back, the entry is deleted. Users can utilize the command `"/settleUp"` to use this and easily manage the process.
- **Introduced code formatter**: Pylint was used for code formatting and pycodestyle was used as a style checking tool to confirm the autopep8's coding conventions.



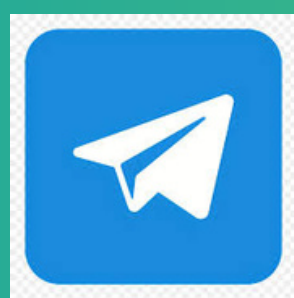
Future Scope

- **Tailored Charts**: The users will be able to customize the expense charts by selecting specific categories and time ranges to track or monitor their spendings. Easily export your expense sheets and charts with annotations in CSV or PDF formats.
- **Quick Profile Overview**: Get a snapshot of your profile, including recent activities and shared expenses, for effortless tracking.
- **Simplified Debt Management**: Easily keep tabs on what you owe and what others owe you with our user-friendly debt feature.
- **Smart Reminders**: Set reminders to settle up expenses or make payments weekly or monthly—never miss a deadline again!
- **Multilingual Support**: Enjoy a seamless experience with commands available in English and other local languages.

Tools and Technologies:



mongo DB



This project successfully passes an impressive 54 test cases, showcasing its reliability and robustness. With such thorough validation, users can trust in its performance and stability!



Roadmap for achieving milestones

Create a user interface (UI) with dropdowns or checkboxes for users to select expense categories and date ranges. Simultaneously, set up API endpoints that query the database based on the selected filters

Implement functions that format the filtered data into CSV and PDF formats using libraries like Pandas (for CSV) and ReportLab or pdfkit (for PDF).

Create APIs to retrieve user activity logs and shared expenses from the database, ensuring efficient data retrieval.

Implement a simple calculator so as to calculate net money owed by each member and then prioritizing members that lent the most money, requesting payments from the set of members owing money until the net owed is 0 (using Graph algorithm)

Use a scheduling library like Celery or APScheduler to handle reminder logic and send notifications via the app or email.

Store translations in JSON files or a database, ensuring dynamic loading based on user preferences for incorporation of limited languages. For vast lingual data, integrate Natural Language Processing .

Group 25

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