

Plutos – Streamlining Expense Tracking and Budgeting

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Motivation

Young adults often face challenges in managing their finances effectively, especially when it comes to tracking expenses and budgeting. Despite advancements in artificial intelligence (AI) and automation, many budgeting apps still require **manual data entry** or calculations, resulting in an inefficient and potentially inaccurate process. This inconvenience often leads users to poorly manage their budgeting or abandon it altogether, hindering their ability to optimize spending habits and achieve their financial goals.

The purpose of Plutos is to **streamline expense tracking** by enabling users to log their expenses simply by taking photos of receipts. Users can then **visualize their spending habits** over time, gaining insights into how their expenses align with their income and budget progress. By automating much of the tracking process, Plutos helps users manage their finances more efficiently and stay on track with their goals.

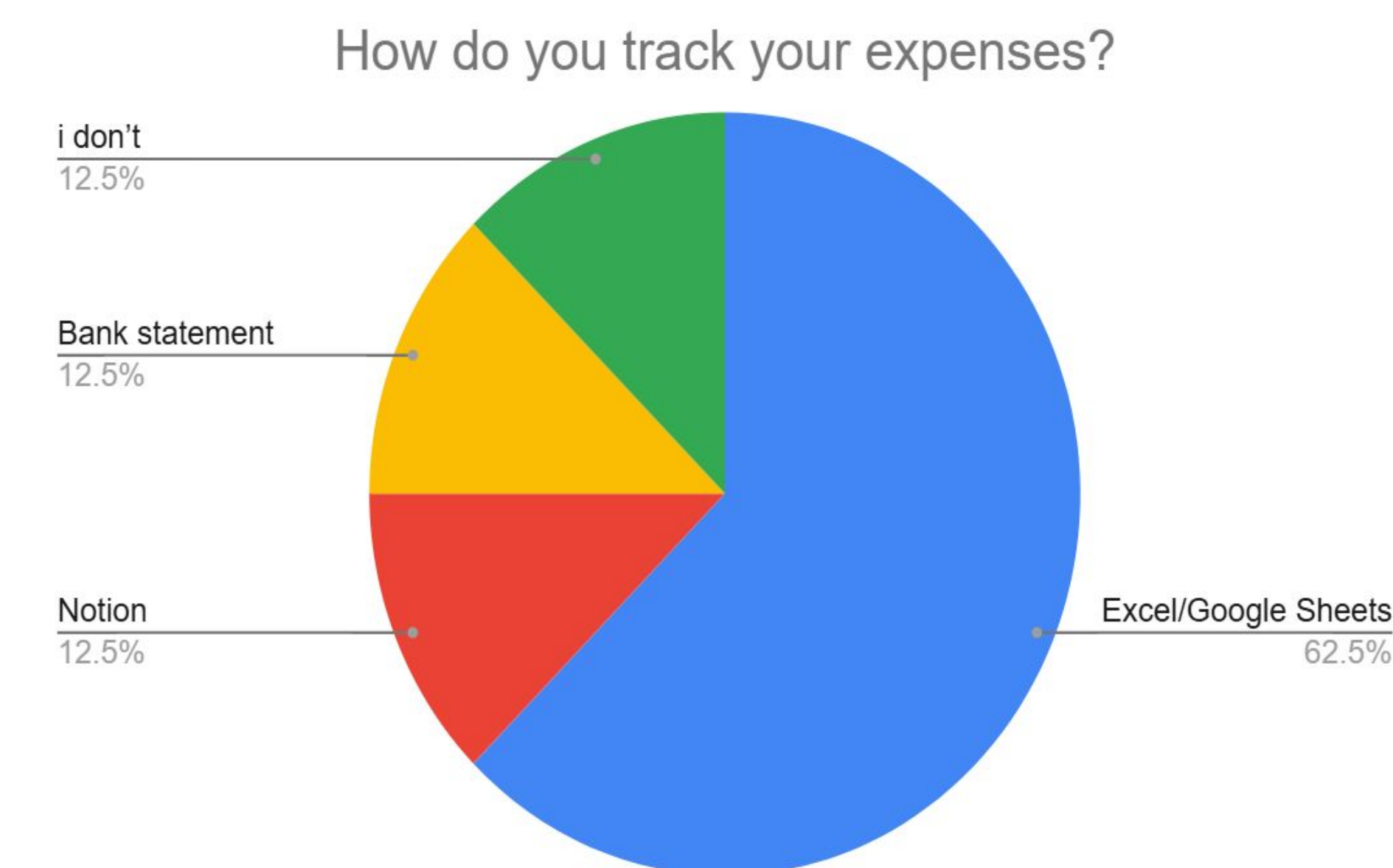
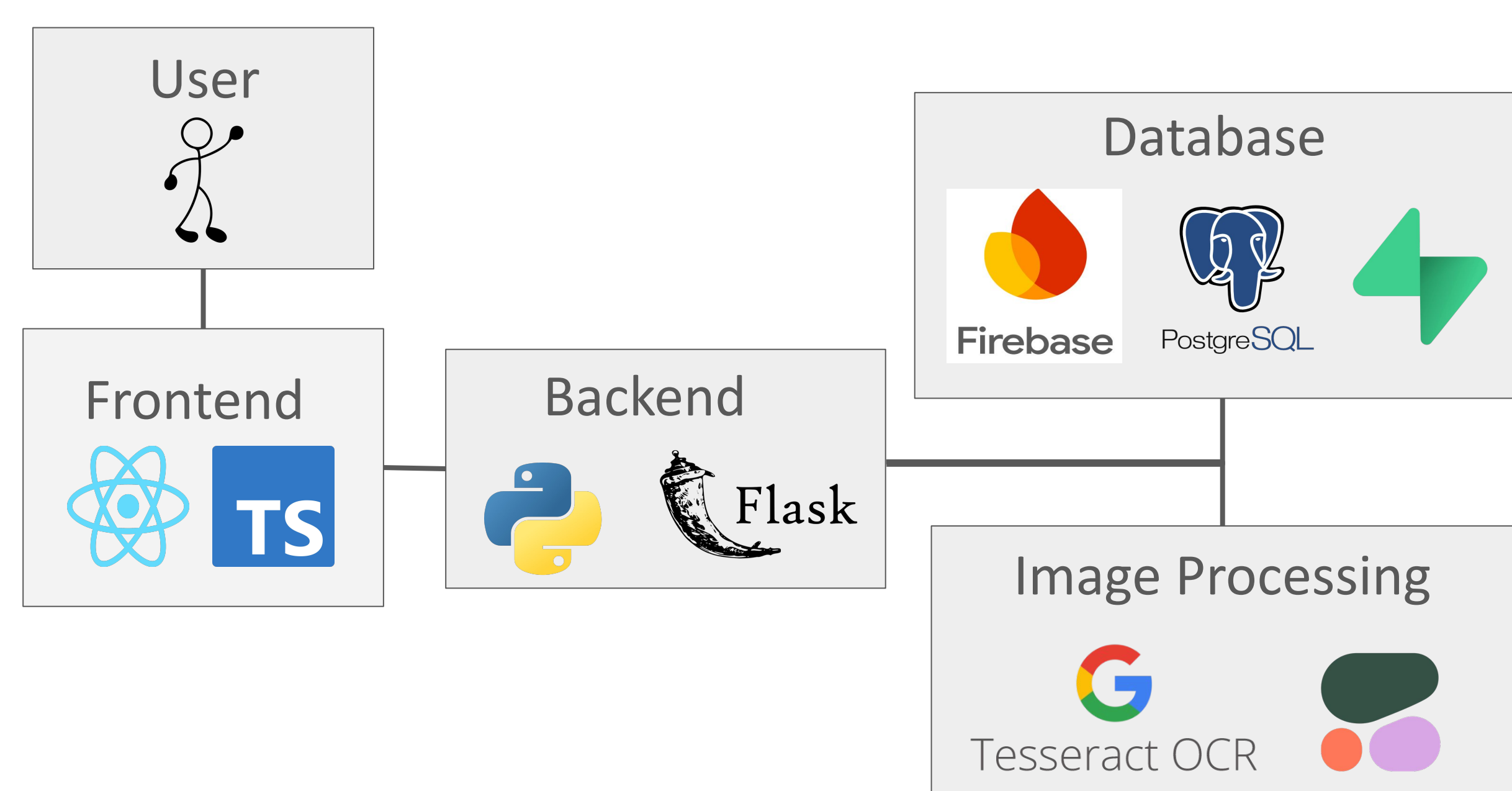


Figure 1. Survey results for how participants track their expenses.

"I currently use a budget template excel spreadsheet which has been pretty good so far but I still have to manually input my entries every time, which can be very time consuming"

- Participant from interview

Engineering Design



Key Features

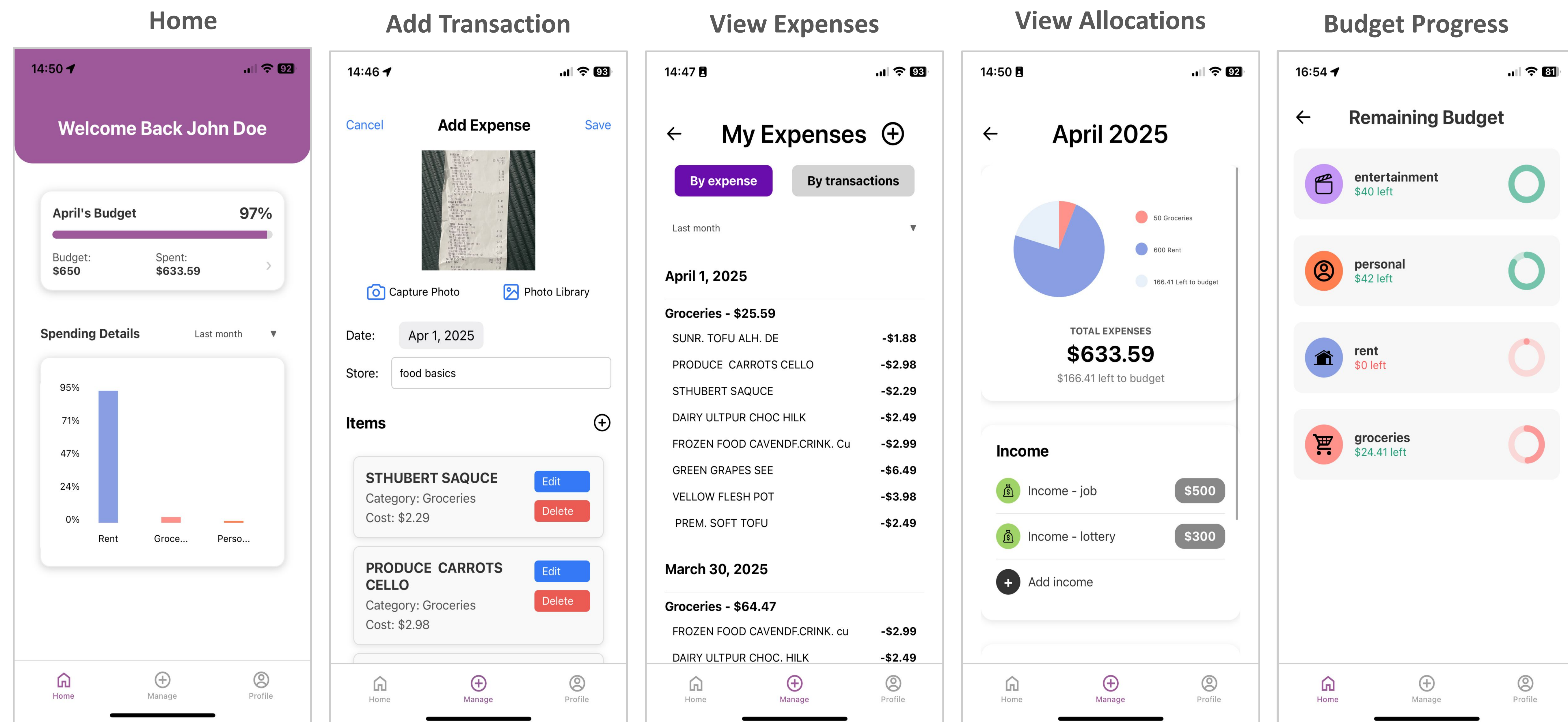
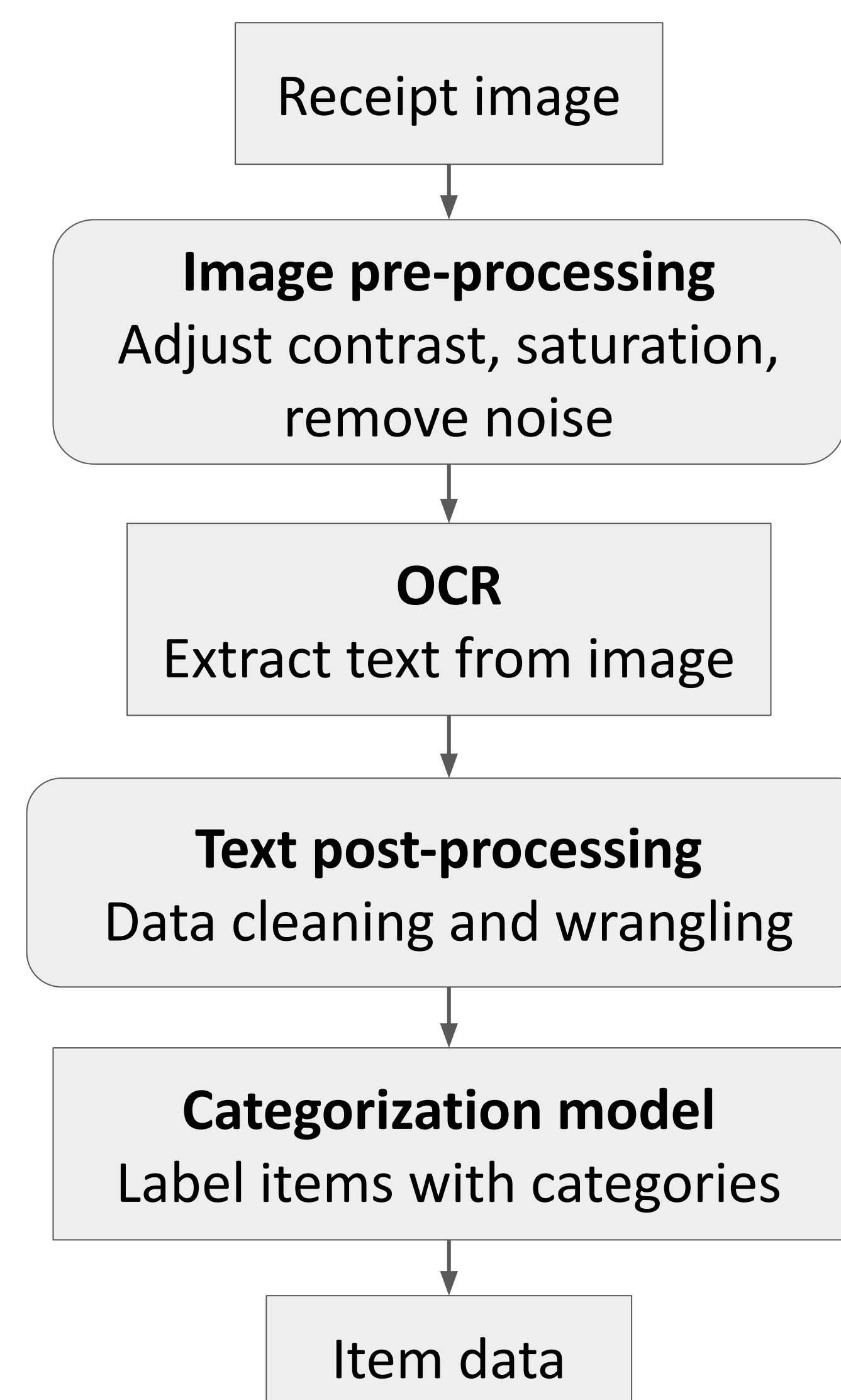


Image Processing



Highlights

- **Automated data entry:** The app automatically extracts item names, costs, and categories from receipt photos, reducing manual effort and streamlining the logging process.
 - The receipt takes less than 4 seconds to process, and the OCR and categorization models achieve 80% and 82.46% accuracy, respectively [1].
 - Changes can be made, with autocomplete suggestions for previously purchased items and store names.
- **Customizable budgeting goals:** Users can set personal budgets for each spending category, creating a financial plan tailored to their needs and goals.
- **Fine-tuned category tracking:** Each item can be labelled with a category, allowing for more precise and accurate tracking of spending.
- **Visualizing trends and progress:** Users can view how their spending compares with their income and budget goals for each category over time.
- **Ease of use:** The interface is intuitive and focuses on user experience.
 - All data loads within 3 seconds, and core features can be accessed within 3 clicks. Adding a transaction takes an average of 10 seconds [1].