Moneyge It: A Mobile Application for Shared Expense Tracking

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ABSTRACT

Financial management often becomes challenging when individuals must monitor multiple accounts, track daily expenses, and collaborate on shared financial goals. Unmet financial goals may lead to financial stress not only in the individual level but to families, partners, and friends as well. To address this need, this study developed Moneyge It, a mobile application designed to provide both personal and collaborative expense tracking. The project adopted the Prototyping Model, emphasizing iterative development from requirements gathering to deployment. Using React Native, SQLite, Firebase Authentication, and Firestore, the application was built to ensure accessibility, secure storage, and real-time synchronization. The resulting system enables users to log and categorize expenses, manage up to six accounts, and share trackers with family members, partners, or peers. Beyond its technical contributions, the app fosters financial literacy by encouraging record-keeping and reducing impulsive spending. While the project successfully delivered a functional application, it was limited to system development, with no user testing conducted. Future research may extend the work by evaluating usability and exploring advanced financial analytics.

Keywords– Expense Tracker App, Financial Manager App, Prototyping Methodology, Financial Literacy, Shared Expense Tracker App

INTRODUCTION

Financial management is an essential aspect of daily living, as it allows individuals to allocate resources wisely and prepare for future needs. Without proper financial management and budget allocation, individuals may experience stress and financial uncertainty due to poor expense tracking (Guan et al., 2022). However, many people, particularly students and young professionals, struggle with managing their daily, weekly, and monthly expenses due to a lack of appropriate tools for tracking financial movements (Namdev et al., 2025). With the increasing availability of smartphones among young adults, many applications and tools have been developed to assist with budgeting and personal finance (Quimba, 2021). Through these technologies, users can log transactions, manage budgets, and analyze spending patterns to reach their financial goals just like the Expense App (Girdhar et al., 2024). However, these mobile applications usually offer tracking personal expenses and budgeting – very few allow sharing and collaborative use.

Alongside financial management tools, online wallets and mobile banking solutions have also risen in popularity, particularly during the COVID-19 pandemic when most purchases shifted online. Dumpit and Tanpoco (2024) confirmed that usefulness and user satisfaction directly impact the intention to continue using mobile wallets. Since then, mobile wallets such as GCash, Maya, and Coins.PH have become widely used in the Philippines (Bacamante, 2024). In addition, many traditional banks have begun offering mobile applications as part of their services, further expanding digital financial ecosystems (Gigante et al., 2022).

Today, students and young professionals often maintain multiple e-wallet and bank accounts for different purposes, such as salaries, bills, daily expenses, and savings (Aprianingsih et al., 2022). Although e-wallets and banking apps provide transaction records, these records are fragmented across platforms. Users are required to

check multiple apps and consolidate their balances manually, creating inefficiencies and potential oversight. This highlights the need for unified expense-tracking solutions.

Financial management, however, is not limited to individuals. Families, partners, and groups of friends often share financial responsibilities and work toward common goals such as household expenses, savings, or travel. Kruger et al. (2023) found that financial satisfaction among couples was strongly associated with financial integration, shared responsibilities, and agreement on spending and saving styles. Yet, most existing expense-tracking applications are designed for individual use, leaving a gap in tools that support collaborative financial management.

To address these challenges, this study proposes the development of MONEYge It, a mobile application with offline-first features and optional online functionalities with the following specific objectives: (1) to develop a mobile app that combines multiple accounts in one platform; (2) Provide features for collaborative/shared expense tracking; and, (3) Promote financial literacy through systematic record-keeping. The application is designed to provide both (1) a unified platform for consolidating multiple accounts and transactions, and (2) a shared tracking system for groups pursuing common financial goals. This dual functionality aims to help users not only manage their individual expenses more effectively but also foster transparency and accountability in shared financial arrangements.

METHODOLOGY

This project adopted the Prototyping Model as its framework for system development. This methodology provided a structured yet flexible approach, guiding the process from gathering requirements to the deployment of the mobile application (Rachma et al., 2022).

The Prototyping Model was particularly well-suited for this project due to limited resources: the development team consisted of only two members, one full-stack developer and one designer who also served as the tester. Given this setup, the team opted for this model over Agile, as Agile typically relies on parallel task execution, which is difficult to achieve with a small team.

The Waterfall model was also not considered appropriate, as the project requirements were not fully defined at the outset. In contrast, the Prototyping Model allowed for the creation of early versions of the application, enabling iterative feedback and the early identification of necessary revisions and potential features (Hossain, 2023). Given the relatively low complexity of the project, this approach was deemed the most effective.

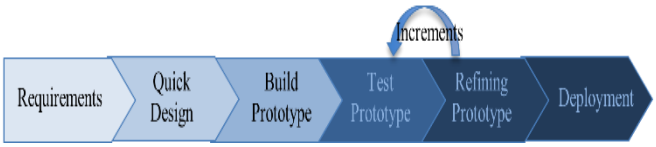

Figure 1. Prototyping Software Development Methodology

This model emphasizes iterative development through prototypes with incremental improvements (Senarath, 2021). The process began with requirements gathering phase, during which the needs of the target users – students and young professionals – were identified. In this phase the developers crafted the Software Requirements Specification (SRS). The SRS ensured clarity on features and common ground for development (Gobov 2023). This was followed by the quick design phase, where the team created initial mock-ups and user interface layouts to visualize the system's features. The mock-ups served as the basis for the development of the application's user interface and user experience (Sharma et al., 2019).

Next, the team proceeded to build the prototype, producing a working version of the mobile application with basic functionalities. This prototype was then subjected to testing where its usability, functionality, and alignment with user needs were evaluated. Based on the test results, the team entered the refinement phase. The team modified and enhanced the prototype to address identified issues and incorporate improvements.

The cycles of building, testing, and refining were repeated until the prototype satisfied the requirements. Each

module is tested through manual testing to ensure correctness, responsiveness, and usability of the application (Itkonen et al., 2009). Finally, the process concluded with the deployment phase, where the completed application was finalized for use.

The app is developed using React Native + Expo framework which enabled the authors both develop and deploy their application. Moreover, the software architectural design is based on component-based architecture for code maintainability and reusability. Due to its modularity, it becomes easier to isolate problems in it and update parts of an application without affecting the whole system (Kothapalli, 2021).

RESULTS AND DISCUSSION

The developed mobile application successfully implemented the core functions identified during the requirements gathering phase, including managing categories, subcategories, and wallets, expense logging, shared tracking, and financial reporting. The prototype evolved into a fully functional mobile application that allowed users to add, categorize, and monitor their daily, weekly, and monthly expenses. Additionally, the app provided options for users to create shared accounts, enabling partners, families, or groups of friends to collaboratively track their expenses and work toward common financial goals. Moneyge It was developed as simple as possible which aligns from prior studies on financial applications, which emphasized the importance of user satisfaction and perceived usefulness in adoption (Dumpit & Tanpoco, 2024). In addition, the "View Logs" screen – as shown in Figure 5, of the app has buttons for to quickly filter transaction logs daily, weekly, and monthly which addresses the struggles presented on a prior study (Namdev et al., 2025). Similarly, Money Dashboard (Fearn, 2016), Moneyge It offers options to create multiple accounts. It has three main account roups, Cash", "E-Wallet", and "Bank Accounts", which the user can create up to two accounts for each group, making it six accounts in total, as shown in Figure 6. Furthermore, the application introduces a "Share Tracker" feature, which enables users to share their financial tracker with collaborators. Similar to KashFlow (2015), this feature allows individuals to add other registered users as collaborators, facilitating group expense management. For example, couples may share a tracker to efficiently monitor joint account spending and savings, a practice that may foster financial satisfaction (Kruger et al., 2023).

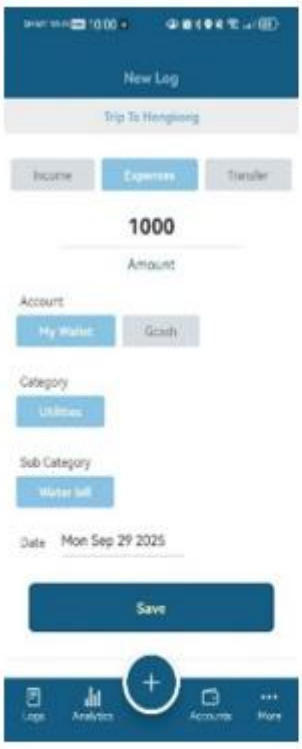

Figure 2. New Log, for logging expenses

Figure 3. New Log, for logging income

Figure 4. Analytics, for viewing recorded transactions with quick filters

Personalization was also supported in the system, as users could add or edit categories and subcategories for both income and expense transactions, comparable to the customization features in Huan Do's Expense Tracking

Application (2023) and Pandey's Expense Management Mobile Application (2024) as shown in Figure 7. These features collectively ensure that the application adapts to different financial management preferences and contexts.

Figure 7. Categories, to personalize Income and Expenses Categories

Figure 8. Accounts, to personalize Cash, Banks, and E-Wallets accounts

Beyond personal expense tracking, this mobile application may help develop an individual's financial literacy. Table 1 shows which features catered to the user's needs. By promoting systematic financial record-keeping, it may reduce their engagement towards impulse buying (Jabar & Dayao 2021). This is consistent with the findings of Naik et al (2024) about the changes of individual's financial behavior by providing the user a tool for tracking their expenses. Additionally, families may use this application as a tool for financial socialization to teach their children financial literacy skills at an early age (Esparagoza et al., 2024).

Table 1. User Needs Addressed vs. Moneyge It Features

User Needs Addressed	Moneyge It Feature
Collaborative tracking of income and expenses for one common goal	Share Tracker, Edit Tacker (invite other user)
Monitoring multiple accounts at once	Accounts (personalization feature)
Improvement of financial literacy	New Log, Analytics, Categories (personalization feature)

Similar to the expense tracker website developed by Radhika et al, (2021), Moneyge It has the option to sync data on cloud for real-time data across shared expense trackers or an optional back up for personal trackers shown in Figure 9 and 10.

The application was developed using React Native for Android Operating Systems compatibility. React Native Async Storage was integrated for lightweight and efficient local storage, while Firestore (NoSQL) was utilized for cloud database storage. Moreover, Firebase Authentication supported secure user login and account sharing

(Kaur, 2022) The architecture is shown visually in Figure 11.

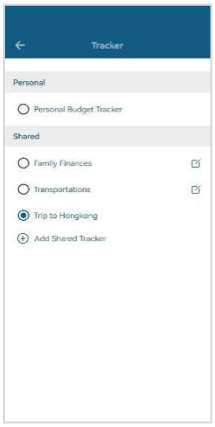

Figure 9. Share Tracker, for collaborative financial tracking

Figure 10. Edit Tracker, to invite collaborator.

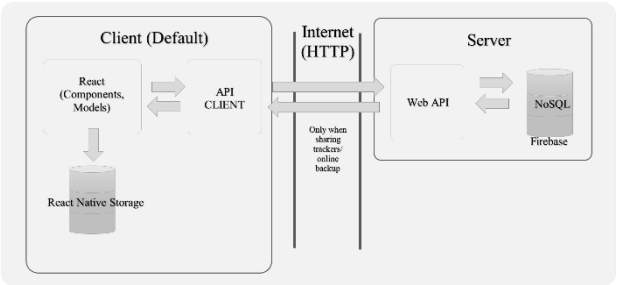

Figure 11. Moneyge It Architectural Design. The client(app) communicates with the server only when the user starts sharing trackers/ enables online back up. By default, the app can run even without connection with the online

It should be noted that the scope of this paper was limited to the development of the mobile application. While the system's functionalities were successfully implemented, no formal usability testing with the target users was carried out. Future studies may address this limitation by conducting user evaluations to assess the application's effectiveness, usability, and overall impact. Also, due to time constraints and human power resources, the mobile application may encounter bugs that might be overlooked during internal testing.

CONCLUSIONS/RECOMMENDATIONS

This capstone project successfully developed Moneyge It, a mobile application designed to address the need for both individual and shared expense tracking. The system implemented key functionalities identified during the requirements gathering phase, including expense logging, category and subcategory management, wallet and account tracking, financial reporting, and collaborative tracking for groups with shared financial goals. Through the adoption of the Prototyping Model, the project ensured an iterative and flexible development process that allowed for the refinement of features until a functional mobile application was achieved.

The application contributes to financial management by offering users a simple yet practical tool to record, monitor, and share their expenses. The application fills the need for collaborative financial monitoring through sharing of expense trackers to other registered users. It also has the potential to support individual financial literacy, improve record-keeping practices, and even foster financial cooperation among families, partners, and peer groups through the app's analytics and personalization of accounts, and income and expense categories.

However, the scope of this paper was limited to system development, and no usability testing with actual users was conducted. Future researchers may extend this work by evaluating the system's usability, effectiveness, and adoption among its intended audience using Technology Acceptance Model (TAM). Additional studies could also explore the integration of advanced features such as budgeting analytics, AI-driven insights, and financial

goal setting to further enhance the app's utility. Similar to ExpenseXpert, AI powered decision-making tools can significantly help the user to make more informed financial decisions. It also recommended to develop the application to be multiplatform compatible to support a wider range of users.

In conclusion, MoneygeIt demonstrates how technology can be leveraged to support financial awareness and discipline. While still requiring user-centered evaluation, the system provides a solid foundation for further development and potential real-world application.

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