An Android Application for Personal Expense Management

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***Abstract*—This thesis designs an Android application for personal expense management using Java and Firebase. The report reviews mobile development, surveys user needs, and models income and expense entries, categories, account settings, reports, and financial goals. Its implementation chapter presents screens for recording transactions and viewing summary statistics. The author says the basic application was completed but acknowledges that some functions remain limited and that the interface and data loading need improvement. The conclusion contains an unrelated statement about rental-room management; the expense-management chapters and title are used here to identify the actual project. The source does not provide a measured improvement in saving behavior, a user study, or long-term deployment evidence. The result is a student prototype that can be extended and tested with real users.**

***Index Terms*—Android, expense management, Java, Firebase, personal finance**

I. Introduction

Personal expense tracking requires users to record money received and spent, classify entries, and review totals. The thesis approaches this need with an Android application. It introduces Java-based mobile development and Firebase before defining the intended functions. The objective is to create a usable interface for individual financial records and reports. The manuscript does not quantify a baseline for users existing accounting habits [1]. Earlier ICTU student work on related designs is included here for context [2], [3]. Related published studies provide context for the subject and methods [4], [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The author reviews Android and Java, describes Firebase as a storage service, surveys application requirements, and prepares system and interaction diagrams. The practical chapter shows screens for income, expenses, categories, account information, reports, and goals. These screens document how entries can be stored and reviewed. The report does not describe a controlled usability trial, a security audit of personal financial data, or a measured loading-time comparison [1].

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III. Results

The source presents a working application interface for basic transaction and category management, along with reporting views. The author reports completing a basic Android program and gaining practical mobile-development experience. The conclusion also states that some functions are inefficient or incomplete. It supplies no verified user outcomes, financial behavior changes, or production adoption data. The evidence supports the prototype features shown in the implementation chapter [1].

IV. Discussion

The design connects routine entries to categories and reports, which can help a user inspect spending. Its usefulness still depends on reliable data entry, privacy controls, backup, and clear summary displays. The author notes that the interface and loading performance need refinement. The source conclusion also mistakenly describes a rental-room program; that sentence does not match the thesis title or its practical chapters and should not be reused as a finding [1].

V. Conclusion

The thesis documents an Android personal-expense prototype built with Java and Firebase. Its screens cover basic income, expense, category, and reporting operations. The author recognizes functional and interface limitations, and no independent evaluation of financial or usability outcomes is shown. Further development should improve the workflow, data handling, and user testing before the application is treated as a mature service [1].

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