An Android Application for Rental Room Management in Thai Nguyen

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***Abstract*—This undergraduate thesis investigates an Android application for managing rental-room information in Thai Nguyen. A room manager needs organized records of rooms, tenants, bills, and related revenue. The student analyzes manual rental-management work, designs use cases and database structures, and presents application screens for registration, login, rooms, tenants, invoices, settings, and revenue summaries. The report documents an Android application design and representative screens for the listed workflows. It does not provide a separately measured reduction in administrative time or evidence of sustained adoption by landlords. The source has no formal privacy audit for tenant information, usability study, or long-running operational evaluation. Functions described in use cases should be distinguished from independently tested transactions. The contribution is a documented student study or prototype whose stated scope can guide further testing.**

***Index Terms*—Android, rental rooms, tenant management, billing**

I. Introduction

A room manager needs organized records of rooms, tenants, bills, and related revenue. This thesis investigates an Android application for managing rental-room information in Thai Nguyen. It begins from a practical engineering need and explains the technologies and workflow chosen for the case. The objective is to document a student implementation or comparative investigation, together with the evidence available in the manuscript. Broader operational or economic effects require separate measurements and are not assumed from the existence of a prototype [1]. Earlier ICTU student work on related designs is included here for context [2], [3], [4], [5]. Related published studies provide context for the subject and methods [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 student analyzes manual rental-management work, designs use cases and database structures, and presents application screens for registration, login, rooms, tenants, invoices, settings, and revenue summaries. The source is summarized through its stated design, implementation material, examples, and conclusion. Features shown in the manuscript are distinguished from proposals for later development. This review does not add a new experiment, fill missing measurements with estimates, or treat a planned capability as an observed result. The source thesis remains the provenance for the reported work [1].

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III. Results

The report documents an Android application design and representative screens for the listed workflows. It does not provide a separately measured reduction in administrative time or evidence of sustained adoption by landlords. The report's screens, configurations, examples, or measurements constitute the evidence for this summary. A capability described only as a design intention is not counted as a validated operational outcome. No additional performance, adoption, financial, or safety figure has been introduced here. The result is interpreted within the scope of the student's documented setup [1].

IV. Discussion

The source has no formal privacy audit for tenant information, usability study, or long-running operational evaluation. Functions described in use cases should be distinguished from independently tested transactions. A later pilot could test bill correctness, tenant-data access, backup and recovery, and usability with representative room managers. These limitations affect how the evidence should be read. The current manuscript can support understanding of the design and reported demonstration, while independent tests would be needed for stronger claims. Any later deployment should document its environment and separate observed outcomes from intended benefits [1].

V. Conclusion

The thesis documents an Android application for managing rental-room information in Thai Nguyen. The report documents an Android application design and representative screens for the listed workflows. It does not provide a separately measured reduction in administrative time or evidence of sustained adoption by landlords. The source has no formal privacy audit for tenant information, usability study, or long-running operational evaluation. Functions described in use cases should be distinguished from independently tested transactions. A later pilot could test bill correctness, tenant-data access, backup and recovery, and usability with representative room managers. Accordingly, the present contribution is a

source-grounded account of the student work and its tested or illustrated scope. Claims about broader effectiveness should be assessed in later work using explicit evaluation conditions [1].

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