A Mobile Application for Booking Travel Tours

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***Abstract*—This undergraduate thesis develops a mobile application for booking travel tours. The manuscript specifies customer, partner, and administrator roles, with account registration and login, tour posts, booking requests, favorites, partner enrollment, and booking management. It reviews Android, Java, and Firebase and presents use-case descriptions, activity and sequence diagrams, and application screenshots. The implementation chapter shows account screens, user and tour management, partner posting, tour selection, customer bookings, and profile updates. The author reports completion of basic application functions while noting that the feature set remains limited and some interactions and loading behavior require improvement. The evidence consists of design descriptions and interface screenshots. The thesis does not report a controlled user study, confirmed payment settlement, reservation fulfillment, or a performance benchmark. This summary therefore presents the documented student prototype without treating planned tourism benefits as measured outcomes.**

***Index Terms*—tour booking, mobile application, Android, Firebase, travel services**

I. Introduction

Travelers need a clear way to discover tours and submit bookings, while tour providers need a way to publish offerings and review customer requests. This thesis proposes a mobile application connecting those roles. Its source describes Android development, account access, partner registration, tour information, booking, and favorites. Administrative controls govern user roles and published content. The project is framed around simplifying tour selection and management on a mobile device. This English summary traces the described functions to the manuscript and distinguishes demonstrated screens from real-world booking fulfillment, which the source does not independently establish [1]. Earlier ICTU student work on related designs is included here for context [2], [3], [4], [5], [6], [7], [8]. Published technical books provide background for the methods discussed in this summary [9], [10], [11]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The student identifies customer, partner, and administrator use cases and models them with activity and sequence diagrams. The workflow includes registration, login, user-role management, tour-post creation, tour selection, booking changes and cancellation, favorites, partner enrollment, customer-request review, and profile updates. The report discusses Android and Java programming with Firebase as a supporting service. Its practical chapter documents the application screens and describes expected interactions for each role. This summary reviews the source cover, requirements tables, diagrams, interface descriptions, bibliography, and conclusion; no independent test protocol is inferred from screenshots alone [1].

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III. Results

The manuscript shows screens for account creation and login, user management, partner tour posts, booking management, partner registration, favorites, tour booking, customer-booking review, and account settings. The reported customer flow selects a tour and submits booking information; the partner flow publishes tours and sees requests from interested customers. The administrator can change a customer account to a partner role. The author states that a basic mobile tour-booking application was completed. The report does not include booking transaction logs, measured response times, payment evidence, customer satisfaction data, or a comparison with an existing booking service [1].

IV. Discussion

Role-specific interfaces and interaction diagrams give a coherent prototype specification, but the source does not show that a booking was fulfilled by a provider or that a customer completed travel. Partner approval, authorization, booking changes, and cancellation would require explicit functional and security tests before deployment. The author acknowledges that the application remains limited to basic features and that some functions, layout, and data-loading speed need improvement. Future work should test the complete customer-to-partner booking path, validate booking states and permissions, and measure responsiveness under documented conditions [1].

V. Conclusion

Trần Tuấn Nam's thesis documents a mobile travel-tour booking prototype built around customer, partner, and administrator roles. The source supports basic account, tour-post, favorites, and booking-management screens and describes the related interactions. It does not establish real customer use, completed travel reservations, payment settlement, or measured service performance. The author identifies limited functionality and interface and loading improvements as future

work. A subsequent version should implement and test end-to-end booking confirmation, role permissions, data consistency, and usability before claiming operational readiness [1].

References

[1] Trần Tuấn Nam, "A Mobile Application for Booking Travel Tours," internal undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, 2024.

[2] ICTU Student 72, "Development of a Mobile Map Application for Thai Nguyen City with Java Support," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2008.

[3] ICTU Student 198, "Application of GIS in Building Bus Route Maps in Dong Da District, Hanoi," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2010.

[4] Mai Hiền Linh, "Development of a File Management Application for Mobile Devices Using Android," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2013.

[5] Hoàng Gia Minh, "Development of an Android Application to Support English Learning," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2021.

[6] Nguyễn Khắc Việt, "Construction of a Hotel Booking Website for Việt Minh Resort," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2021.

[7] Đàm Quang Hiếu, "Development of a Booking and Service Promotion System for Bao Minh Radiant Hotel," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2021.

[8] Trần Minh Tuấn, "Development of iShare Social Network Application on Android," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2023.

[9] B. Phillips, C. Stewart, K. Marsicano, and B. Gardner, Android Programming: The Big Nerd Ranch Guide, 4th ed. Big Nerd Ranch, 2019. ISBN 9780135257555.

[10] D. Griffiths and D. Griffiths, Head First Android Development, 3rd ed. O'Reilly Media, 2021. ISBN 9781492076513.

[11] I. F. Darwin, Java Cookbook, 4th ed. O'Reilly Media, 2020. ISBN 9781492072577.