Development of a Booking and Service Promotion System for Bao Minh Radiant Hotel

Đàm Quang Hiếu
Thai Nguyen University of Information and Communication Technology
Thai Nguyen University, Thai Nguyen, Vietnam
student455@ictu.edu.vn

***Abstract*—This thesis presents the development of a web-based system for hotel booking and service promotion for the Bao Minh Radiant Hotel. The system includes management and user interfaces, utilizing PHP and Laravel framework, and MySQL database. The author describes the system's features, including a user-friendly interface, regular data updates, and ease of management for hotel staff. However, the system has not been tested for scalability or security under high load conditions. The project aims to enhance the hotel's operational efficiency and customer experience, but lacks advanced security features and has not been rigorously evaluated for performance under stress.**

***Index Terms*—PHP, Laravel, MySQL, Web development, Hotel management**

I. Introduction

The thesis addresses the challenges of managing hotel bookings and service promotion, highlighting the need for an efficient and user-friendly system. The author chose this topic to improve the operational efficiency and customer experience at the Bao Minh Radiant Hotel. The study focuses on both management and user perspectives, aiming to provide a comprehensive solution for hotel management and guests. The system is designed to be accessible and easy to use for both hotel staff and customers, ensuring regular data updates and seamless booking processes [1]. Official technical documentation listed by the original thesis provides implementation context [7], [8]. Publisher-verified books named in the original thesis bibliography provide implementation background [9], [10].

II. Methods

The methods section discusses the use of PHP, Laravel framework, and MySQL database. PHP is a server scripting language that enables dynamic web content. Laravel, a PHP framework, provides a robust set of tools for web development, including routing, database migrations, and authentication. MySQL is a widely used relational database management system that stores and retrieves data efficiently. The author describes the theoretical foundations of these technologies, providing a solid basis for the system's development [1].

Supervisor: Bùi Anh Tú, Thai Nguyen University of Information and Communication Technology (batu@ictu.edu.vn).

III. Results

The system was developed with a user-friendly interface, regular data updates, and ease of management for hotel staff. However, it has not been tested for scalability or security under high load conditions. The system includes features such as room booking, service promotion, and customer management. The author has documented the implementation of these functions, but no measured evaluation of the system's performance or security has been provided [1].

IV. Discussion

The system has several advantages, including a responsive design for different devices, regular data updates, and ease of management. However, it lacks advanced security features and has not been tested for performance under high load conditions. The author acknowledges the limitations of the project, noting that the system has not undergone rigorous testing to ensure its robustness and security. Future work could include enhancing security, improving performance, and expanding the system's features to address these limitations [1].

V. Conclusion

The author successfully developed a system that meets the basic requirements for hotel booking and service promotion. The system provides a user-friendly interface and regular data updates, which are essential for enhancing the hotel's operational efficiency and customer experience. However, the project has limitations, such as the lack of advanced security features and untested performance under high load conditions. Future work could focus on addressing these limitations to improve the system's overall effectiveness [1].

References

[1] Đàm Quang Hiếu, "Development of a Booking and Service Promotion System for Bao Minh Radiant Hotel," internal undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, 2021.
[2] Dọơng Kiều Hoa, Giáo trình Phân tích hệ thống họớng đối tọợng với UML, Trọờng Đại học Quốc gia Thành phố Hồ Chí Minh, Năm 2006
[3] PGS.TS Đặng Văn Đức, Phân tích thiết kế họớng đối tọợng, Năm 2002
[4] Giáo trình thiết kế giao diện phần mềm
[5] Huỳnh Văn Đức, Đoàn Thiện Ngân, Giáo trình nhập môn UML, Nhà xuất bản Lao động xã hội, Năm 2004
[6] Giáo trình Định Kiểu Web Với CSS – Charles Wyke-Smith
[7] Laravel, "Laravel 8.x documentation,", n.d. [Online]. Available: https://laravel.com/framework/docs/8.x. Accessed: Nov. 27, 2026.

[8] Composer, ”Composer documentation,”, n.d. [Online]. Available: https://getcomposer.org/doc/. Accessed: Nov. 27, 2026.
[9] T. Butler and K. Yank, PHP & MySQL: Novice to Ninja, 6th ed. SitePoint, 2017. ISBN 9780994346988.
[10] A. Forbes, The Joy of PHP: A Beginner’s Guide to Programming Interactive Web Applications with PHP and MySQL. CreateSpace, 2015. ISBN 9781522792147.