# Construction of a Hotel Management Program for Thai Nguyen

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***Abstract*—This thesis focuses on the development of a hotel management system for Thai Nguyen, utilizing Visual Basic and Access. The author analyzed the existing system, designed the new system, and implemented various forms for data entry and reporting. The system includes functions for customer registration, room booking, service usage, and billing. The research concludes that the system successfully automates some steps in data storage and processing, but suggests further development for multi-machine deployment. The study highlights the importance of information technology in the hospitality industry and the need for efficient management systems. The system was developed using Visual Basic and Access, and it includes forms for customer registration, room booking, service usage, and billing. However, the system is currently limited to a single PC and requires further development for broader deployment.**

***Index Terms*—Visual Basic, Access, hotel management, data entry, reporting**

## I. Introduction

The thesis explores the development of a hotel management system for Thai Nguyen, emphasizing the application of Visual Basic and Access. It highlights the importance of information technology in various sectors and the need for efficient management systems in the hospitality industry. The author, a Vietnamese undergraduate, chose this topic to address the challenges faced by the hotel industry in managing customer data, room bookings, and service usage. The project aims to improve the efficiency and accuracy of hotel operations through the implementation of a modern management system. The system is designed to streamline the processes of customer registration, room booking, service usage, and billing, thereby enhancing the overall customer experience and operational efficiency [1].

## II. Methods

The methods section details the theoretical foundations and practical surveys of the existing system. The author used Visual Basic and Access to design and implement the system, focusing on data entry forms and reporting functionalities. The system was developed based on a thorough analysis of the current hotel management practices in Thai Nguyen. The author conducted interviews with hotel staff to understand their needs and challenges, which informed the design of the system. The implementation involved creating various forms for data entry, such as customer registration, room booking, service usage, and billing. The system was tested through a series of user acceptance tests to ensure its usability and effectiveness. However, the system is currently limited to a single PC and requires further development for broader deployment [1].

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## III. Results

The hotel-management program covers customer registration and check-out, room records, services, and revenue reporting for Thai Nguyen Hotel. The thesis presents the analysis, design, and implemented forms for those tasks and describes some automation of information storage and processing. Its author also states that the data and program were installed on a single PC. Operation across multiple computers is a suggested extension, so the report does not establish multi-user performance or deployment beyond that local installation [1].

## IV. Discussion

The system demonstrates the potential for automating hotel management processes, but faces limitations in scalability. The author suggests that future work should focus on enhancing the system to run on multiple machines. The system's current limitations include its single-machine deployment, which restricts its ability to handle large volumes of data and concurrent users. The author recommends incorporating a client-server architecture to address these limitations. Additionally, the system could benefit from the integration of real-time data synchronization and backup mechanisms to ensure data integrity and availability. The author also suggests exploring the use of cloud-based solutions to further enhance the system's scalability and accessibility [1].

## V. Conclusion

The thesis successfully implemented a hotel management system using Visual Basic and Access, automating several management tasks. However, the system's deployment is currently limited to a single PC, and further development is recommended for broader use. The study highlights the importance of information technology in the hospitality industry and the need for efficient management systems. The system's implementation addresses the challenges faced by the hotel industry in managing customer data, room bookings,

and service usage, thereby enhancing the overall customer experience and operational efficiency [1].

## References


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