Construction of a Hotel Management Program Integrated with Online Booking Services

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***Abstract*—This thesis focuses on the development of a hotel management system that integrates online booking services. The system is built using VB.NET and ASP, providing functionalities for resource management, booking, guest check-in, service usage, and reporting. The research details the design and implementation of the system, including data structure and database access methods. The system aims to enhance the efficiency of hotel operations and improve guest satisfaction, though it currently lacks online payment capabilities and security optimization. The project explores the integration of modern programming languages and web technologies to modernize hotel management in Vietnam, where the application of information technology is still limited.**

***Index Terms*—VB.NET, ASP, hotel management, online booking, data structure, database**

I. Introduction

The thesis explores the development of a hotel management program that integrates online booking services. It highlights the importance of technology in the tourism industry, particularly in the context of Vietnam, where the application of information technology is still limited. The project aims to improve hotel operations and guest services through the use of modern programming languages and web technologies [1]. Published articles on the methods and subject of this project provide context for this English summary [5]. Published books on the methods and subject of this project provide context for this English summary [6], [7].

II. Methods

The system is developed using VB.NET and ASP, covering data types, variables, arrays, and database support. The design includes a detailed analysis of system functions, such as resource management, booking, guest check-in, service usage, and reporting. The thesis also discusses the use of ADO for database access and various control structures in ASP. The project involves creating a web-based interface for users to manage hotel resources and guest services [1].

III. Results

The system successfully integrates online booking services and provides a web-based interface for users. However, it currently lacks online payment functionality and security features, which are noted as areas for future improvement. The system includes functionalities for resource management, booking, guest check-in, service usage, and reporting. The implementation of these features is based on the use of VB.NET and ASP, with ADO for database access [1].

IV. Discussion

The developed system enhances the efficiency of hotel operations and guest services. However, it faces limitations in terms of online payment and security, which could be addressed in future updates. The integration of online booking services is seen as a significant step towards modernizing hotel management. The system provides a comprehensive solution for managing hotel resources and guest services, but it requires further improvements to fully leverage the benefits of modern technology in the hospitality industry [1].

V. Conclusion

The thesis concludes that the developed system effectively manages hotel resources and guest services. However, it highlights the need for further improvements, particularly in online payment and security features, to fully leverage the benefits of modern technology in the hospitality industry. The project demonstrates the potential of integrating modern programming languages and web technologies to modernize hotel management in Vietnam, where the application of information technology is still limited [1].

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