BUILDING A RESTAURANT MANAGEMENT SYSTEM USING THE LARAVEL FRAMEWORK

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***Abstract*—This undergraduate thesis presents the construction of a restaurant management system using the Laravel framework. The system aims to automate various business operations in a restaurant, including task handover among staff, payroll management, and order tracking. The author provides a detailed exploration of Laravel's core components such as routes, controllers, and models, and demonstrates the system's functionality through a prototype. The system has achieved most of the critical business functions, improving staff task handover efficiency and facilitating payroll and time tracking. However, some features, such as table change notifications and multi-language support, are still under development, and the system is currently in a demo phase, lacking practical experience and support for multiple languages.**

***Index Terms*—Laravel, restaurant management, task handover, payroll, order tracking**

I. Introduction

The thesis begins with an in-depth explanation of Laravel framework, including its installation, structure, and key features such as routes, controllers, and models. The author then outlines the system's objectives and the current state of restaurant management systems, highlighting the need for automation and efficiency. The system is designed to streamline task handover, payroll management, and order tracking, aiming to improve the overall operational efficiency of the restaurant. The author discusses the importance of using Laravel for its robust features and ease of use, which are crucial for developing a robust restaurant management system [1]. Published books on the methods and subject of this project provide context for this English summary [2]. Official technical documentation listed by the original thesis provides implementation context [3], [4], [5]. Published articles on the methods and subject of this project provide context for this English summary [6]. Published books on the methods and subject of this project provide context for this English summary [7].

II. Methods

The author uses Laravel to develop a restaurant management system, covering essential components like routes, controllers, and models. The system is designed to streamline task handover, payroll management, and order tracking. The methods section includes detailed descriptions of each component and their implementation. The author explains how routes are used to define the application's URL structure, controllers to handle user requests, and models to interact with the database. The implementation of these components is described in detail, providing a clear understanding of how the system functions [1].

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III. Results

The system has been developed and tested, achieving most of the critical business functions. Staff task handover has become more efficient, and payroll and time tracking are now managed through the system. The system includes features such as task assignment, order processing, and payroll management. However, some features, such as table change notifications and multi-language support, are still under development. The system is currently in a demo phase and lacks practical experience and real-world testing. The author has implemented the core functionalities of the system, but further development is needed to fully realize the system's potential [1].

IV. Discussion

The author discusses the system's limitations, such as ongoing development of certain features and the need for practical experience in software development. The system is currently limited to internal use and does not support external customers. The author suggests potential improvements, including better user interaction, code optimization, and multi-platform support. The system's current state is described as a prototype, with some functionalities fully implemented and others still in the development phase. The author emphasizes the importance of practical testing and user feedback to improve the system's usability and functionality [1].

V. Conclusion

The thesis concludes that the system has achieved most of the critical business functions, improving staff task handover and payroll management. However, the system is still in the demo phase and requires further development and practical testing. The author suggests future work to enhance user interaction, optimize code, and support multiple languages and platforms. The system's current state is described as a prototype, with some functionalities fully implemented and others still in the development phase. The author emphasizes the need for practical testing and user feedback to improve the system's usability and functionality [1].

References

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