BUILDING AN ONLINE SHOPPING WEBSITE FOR VNPC THAI NGUYEN

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***Abstract*—This thesis presents the construction of an online shopping website for VNPC Thai Nguyen, utilizing the Laravel PHP framework. The author describes the theoretical foundations of Laravel, including its advantages, directory structure, and key components. The design and implementation of various functionalities, such as product management, user login, and order placement, are detailed. The website's backend and frontend are developed, with backend features including user management and product catalog management. The frontend is designed to be user-friendly, allowing customers to browse and purchase products. However, the thesis notes that the system's performance and user interaction features require further optimization.**

***Index Terms*—Laravel, PHP, Web development, Online shopping, User interface**

I. Introduction

The thesis introduces the Laravel PHP framework, highlighting its benefits and structure. It covers the basic components of Laravel, such as routes, models, controllers, and views, and discusses the use of front-end frameworks like Bootstrap and jQuery. The author also explains how these tools are integrated to create a user-friendly interface for both administrators and customers. The project aims to provide a platform for both product promotion and business management, addressing the need for an online sales solution for VNPC Thai Nguyen [1]. Related earlier ICTU undergraduate theses provide context for this English summary [4], [5], [6], [10]. Official technical documentation listed by the original thesis provides implementation context [7], [8]. Published articles on the methods and subject of this project provide context for this English summary [9].

II. Methods

The author uses the Laravel framework to develop a website for VNPC Thai Nguyen. The website includes backend functionalities for managing products, users, and orders, as well as frontend features for customer interaction. Use cases and state diagrams are used to design the system's functionalities. The backend includes features for user login, product management, and order processing. The frontend is designed to be user-friendly, allowing customers to browse and purchase products. However, the performance and user interaction features have not been fully tested with a large number of concurrent users [1].

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III. Results

The website was successfully developed, with backend and frontend functionalities implemented. The backend includes features for user login, product management, and order processing. The frontend is designed to be user-friendly, allowing customers to browse and purchase products. However, the performance and user interaction features have not been fully tested with a large number of concurrent users. The system has contributed to the promotion of products and the management of online sales for VNPC Thai Nguyen. The backend functionalities, such as user management and product catalog management, have been successfully implemented, but the frontend's performance and user interaction features require further optimization [1].

IV. Discussion

The thesis discusses the challenges faced during the development process, such as optimizing the system's performance and improving user interaction features. The author suggests adding additional functionalities, such as chat and vouchers, to enhance the user experience. The system has contributed to the promotion of products and the management of online sales for VNPC Thai Nguyen. However, the system still has limitations, such as performance issues and the need for more refined user interaction features. The backend functionalities, such as user management and product catalog management, have been successfully implemented, but the frontend's performance and user interaction features require further optimization [1].

V. Conclusion

The thesis concludes that the website was successfully built using the Laravel framework. It provides a platform for both product promotion and business management. However, the system still has limitations, such as performance issues and the need for more refined user interaction features. The backend functionalities, such as user management and product catalog management, have been successfully implemented, but the frontend's performance and user interaction features require further optimization [1].

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