Analysis and Design of an E-commerce Website for Computer Products - Introduction and Sales for H3T Corporation

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***Abstract*—This thesis focuses on the development of an e-commerce website for computer products, specifically for H3T Corporation. The study explores the use of PHP and MySQL to create a user-friendly interface for product inquiries and sales. The website's design and functionality are analyzed, with a particular emphasis on the ease of use for both users and administrators. The research also discusses the importance of e-commerce and the role of websites in modern business. The website was found to be user-friendly and easy to navigate, with straightforward administrative functions. However, the thesis acknowledges that some functionalities, such as online payment and advanced security measures, are yet to be fully developed.**

***Index Terms*—e-commerce, PHP, MySQL, website design, user interface**

I. Introduction

The thesis introduces the concept of e-commerce and its significance in today's digital age. It highlights the increasing importance of websites in business and the use of PHP and MySQL for developing dynamic and robust e-commerce platforms. The study aims to design and implement a website for H3T Corporation, focusing on product inquiries and sales. The research explores the need for an e-commerce platform in the context of H3T Corporation, which deals with computer products. The website is intended to provide a user-friendly interface for customers and an efficient management tool for administrators. The study also discusses the practical challenges and limitations faced during the development process, such as limited time and technical skills [1]. Related earlier ICTU undergraduate theses provide context for this English summary [10], [11], [12].

II. Methods

The methods section details the use of PHP and MySQL for website development. It includes the creation of a database and the implementation of various modules and interfaces. The website's functionality is analyzed through the creation of a user interface and administrative tools. The study uses a modular approach, where each module is designed to perform specific tasks, such as product display, user registration, and order management. The website is developed using a combination of HTML, PHP, and MySQL, with the PHP code being open-source and easily extendable. The study also discusses the use of Appserv Web server for hosting the website and the importance of regular updates and maintenance to ensure the website's performance and security [1].

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III. Results

The results show that the website is user-friendly and easy to navigate. The administrative functions are straightforward, allowing for easy management of the website. The code is open-source and can be easily extended with new features. However, the thesis acknowledges that some functionalities, such as online payment and advanced security measures, are yet to be fully developed. The website provides a basic framework for product inquiries and sales, but it lacks advanced features that could enhance the user experience and business operations. The study also highlights the importance of continuous improvement and the need for further development to meet the evolving needs of the business [1].

IV. Discussion

The discussion section outlines the potential for future improvements, including the addition of a computer build function, online payment support, and enhanced security measures. The thesis concludes that while the website is functional, there is room for further development to fully realize the potential of the platform. The study suggests that the website could be improved by integrating more advanced features, such as real-time inventory management and customer support. The research also emphasizes the importance of user feedback and continuous testing to ensure the website's effectiveness and usability. The thesis acknowledges that the current implementation is a step towards a more comprehensive e-commerce solution, but it requires further refinement and expansion to meet the business's needs [1]. Earlier ICTU undergraduate work by Phạm Tuấn Hải addressed online retail website architecture [9].

V. Conclusion

The study successfully developed a functional e-commerce website for H3T Corporation. The website provides a user-friendly interface for product inquiries and sales. However, the thesis suggests that further development is needed to fully

realize the potential of the platform. The website's current functionalities are limited, and additional features such as online payment and advanced security measures are necessary to enhance the user experience and business operations. The study highlights the importance of continuous improvement and the need for further development to meet the evolving needs of the business [1].

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