E-Commerce and Website Construction

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***Abstract*—This thesis explores the development of e-commerce in Vietnam, focusing on the construction of a website for Hadicomex Vietnam. It covers the basics of e-commerce, programming languages like PHP, and database management using MySQL. The author also discusses the design and analysis of the website, including its functionalities such as product display, shopping cart, and inventory management. Despite the limitations due to time and knowledge, the thesis successfully constructs a basic e-commerce platform. The study highlights the importance of e-commerce in the Vietnamese economy and the need for practical solutions. The website developed includes basic functionalities but lacks advanced transaction processing and optimized database storage.**

***Index Terms*—e-commerce, PHP, MySQL, website construction, UML**

I. Introduction

The thesis examines the growth of e-commerce in Vietnam, driven by government encouragement. It aims to develop a website for Hadicomex Vietnam, covering e-commerce fundamentals, PHP programming, and MySQL database management. The author highlights the importance of e-commerce in the Vietnamese economy and the need for practical solutions. The study emphasizes the potential of e-commerce to revolutionize business operations and customer engagement in Vietnam. The author also discusses the challenges faced by businesses in implementing e-commerce solutions, such as data security and storage issues [1]. Related earlier ICTU undergraduate theses provide context for this English summary [6], [7]. Published articles on the methods and subject of this project provide context for this English summary [8]. Published books on the methods and subject of this project provide context for this English summary [9]. Published books on the methods and subject of this project provide context for this English summary [10].

II. Methods

The methods include a review of e-commerce concepts, PHP programming, and MySQL database management. The author conducted a system analysis, creating use cases, and designing the website's architecture. The thesis covers the use of PHP for dynamic web page generation, including the use of 'echo' to display text, HTML and PHP for text formatting, and the use of variables and arrays. The author also explored database management using MySQL, including connecting to the MySQL server, creating databases, and querying the database. The design and analysis of the website involved creating use cases, UML diagrams, and activity diagrams to ensure a structured and functional website [1].

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III. Results

The thesis successfully constructs a basic e-commerce website with functionalities such as product display, shopping cart, and inventory management. The website includes a product catalog, a shopping cart for customers to add and remove items, and an inventory management system to track stock levels. However, the website lacks advanced transaction processing capabilities and optimized database storage. The author acknowledges that the implementation was limited by time and knowledge, resulting in some functionalities not being fully developed [1].

IV. Discussion

The author discusses the challenges in e-commerce, such as data security and storage, and suggests future improvements, including better transaction processing and enhanced security measures. The study highlights the importance of secure and efficient transaction processing to ensure customer trust and satisfaction. The author also emphasizes the need for continuous improvement in database management to optimize performance and ensure data integrity. The limitations of the current implementation are acknowledged, and the author suggests further research and development in these areas [1].

V. Conclusion

The thesis concludes that while the constructed website meets basic e-commerce requirements, there is room for improvement in transaction processing and database management. The author suggests further research and development in these areas to enhance the functionality and security of the e-commerce platform. The study emphasizes the importance of practical solutions for businesses looking to implement e-commerce solutions in Vietnam. The author also highlights the need for ongoing training and support for businesses to effectively utilize e-commerce tools and technologies [1].

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