Development of an Online Book Catalog and Sales System

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***Abstract*—This thesis presents the construction of an online book catalog and sales system, focusing on the use of PHP and MySQL. The author describes the development process, including the analysis and design of the system, and discusses the benefits and limitations of using PHP and MySQL. The system is designed to be user-friendly and responsive across different devices, with regular updates to product data and convenient order and payment functions. However, it lacks comprehensive security features and scalability. The author plans to expand the system's scope and improve its security in future work.**

***Index Terms*—PHP, MySQL, MVC, Web Development, Online Book Sales**

I. Introduction

The thesis introduces the construction of an online book catalog and sales system, emphasizing the use of PHP and MySQL. The author explains the rationale for choosing PHP, its history, advantages, and limitations. The system is designed to be accessible and responsive on various devices, with regular updates to product information and convenient order and payment processes. The author also discusses the importance of user-friendliness and cross-device compatibility in the context of online sales [1]. Related earlier ICTU undergraduate theses provide context for this English summary [7], [8], [9], [10], [11].

II. Methods

The methods section covers the analysis and design of the system, including the use of PHP and MySQL. The author discusses the use of the Model-View-Controller (MVC) architecture and provides details on PHP programming, including data types, operators, control structures, and string operations. The system is designed to be user-friendly and responsive, with regular updates to product data and convenient order and payment functions. The author also mentions the importance of maintaining a clear and organized code structure to ensure the system's functionality and maintainability [1].

III. Results

The system was developed using PHP and MySQL, with a focus on user-friendliness and cross-device compatibility. Regular updates to product data and convenient order and payment functions were implemented. However, the system lacks comprehensive security features and scalability. The author plans to expand the system's scope and improve its security in future work. The source conclusion identifies product-data updates and ordering and payment functions as demonstrated features, while noting that concurrent-user performance was not tested [1].

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IV. Discussion

The author discusses the benefits and limitations of using PHP and MySQL, highlighting the system's user-friendliness and cross-device compatibility. However, the system's lack of comprehensive security features and scalability is noted as a limitation. The author also mentions plans to expand the system's scope and improve its security in future work. The author acknowledges the need for further research and development to address these limitations [1]. Earlier ICTU undergraduate work by Nguyễn Văn Điệp addressed online book sales [6].

V. Conclusion

The author concludes that the system has been successfully developed, with improvements in programming skills and knowledge. However, the system's limitations, such as the lack of comprehensive security features and scalability, are acknowledged. The author plans to expand the system's scope and improve its security in future work. The report explicitly leaves high-concurrency testing and more advanced security controls for later work, so operational scalability remains unverified [1].

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