LMS for the E-learning System of the Faculty of Information Technology

ICTU Student 3
Thai Nguyen University of Information and Communication Technology
Thai Nguyen University, Thai Nguyen, Vietnam

***Abstract*—This thesis focuses on the development and implementation of an e-learning system using Moodle for the Faculty of Information Technology at Thai Nguyen University. The author provides an overview of e-learning and the importance of learning management systems (LMS), particularly Moodle. The thesis details the setup and configuration of Moodle 1.7.1, including system requirements, web server and database setup, and module development. The author also discusses the application of Moodle in developing a specific e-learning website for the faculty. The implementation was tested on a local network and the internet, but the author acknowledges several limitations and suggests future improvements. The study covers the installation of Apache web server and MySQL database, the development of Moodle modules, and the customization of Moodle, such as theme creation and localization. The author also highlights the need for further research on Moodle's source code and the importance of community involvement to address limitations such as database support and module development.**

***Index Terms*—e-learning, Moodle, learning management system, web server, database**

I. Introduction

The thesis introduces e-learning and learning management systems (LMS), emphasizing the importance of LMS in education. It specifically focuses on Moodle, detailing its features and benefits. The author outlines the setup process for Moodle 1.7.1, covering system requirements, web server and database configuration, and module development. The thesis also discusses the application of Moodle in developing an e-learning platform for the Faculty of Information Technology. The author provides a comprehensive overview of e-learning, including its definition, importance, and the concept of blended learning. The thesis also covers the architecture of e-learning systems, the definition, characteristics, and functions of LMS, and the specific features of Moodle, including its comparison with other LMSs. [1]

II. Methods

The methods section describes the setup and configuration of Moodle 1.7.1, including the installation of Apache web server and MySQL database, and the development of Moodle modules. The author also discusses the customization of Moodle, such as theme creation and localization. The author details the step-by-step process of setting up the Moodle environment, including the installation of necessary software, configuration of the web server, and database setup. The author also explains the development of Moodle modules, which are essential for the functionality of the e-learning system. The customization of Moodle, including the creation of themes and localization, is also covered in this section. [1]

III. Results

The author successfully set up and configured Moodle 1.7.1, creating a functional e-learning system for the Faculty of Information Technology. The system was tested on a local network and the internet, but the author noted several limitations, such as incomplete module development and lack of support for certain databases. The author tested the system by creating and managing courses, setting up user authentication, and configuring the system's appearance and modules. However, the author acknowledged that the system did not fully support all required functionalities, such as SCORM export and Oracle database support. The author also mentioned that the system was tested on a local network and the internet, but no specific performance metrics or user feedback were provided. [1]

IV. Discussion

The author discusses the limitations encountered during the implementation, such as incomplete module development and the need for further research on Moodle's source code. The author suggests that future developers should continue to explore and improve Moodle, particularly in areas such as database support and module development. The author also highlights the importance of community involvement in the development and improvement of Moodle. The author notes that while the system was functional, it lacked some advanced features and support for certain databases, which could be addressed through further research and development. The author suggests that future work should focus on enhancing Moodle's functionality and addressing the limitations identified during the implementation. [1]

V. Conclusion

The thesis concludes that the author successfully implemented Moodle for the Faculty of Information Technology, but acknowledges the need for further improvements. The author suggests that future work should focus on enhancing Moodle's functionality and addressing the limitations identified during the implementation. The author also emphasizes the importance of community involvement in the development and improvement of Moodle. The author concludes that while

Supervisor: Nguyễn Văn Tới, Thai Nguyen University of Information and Communication Technology.

the system was functional, it lacked some advanced features and support for certain databases, which could be addressed through further research and development. The author suggests that future work should focus on enhancing Moodle's functionality and addressing the limitations identified during the implementation. [1]

References

[1] ICTU Student 3, "LMS for the E-learning System of the Faculty of Information Technology," undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, n.d.

[2] Phạm Hữu Khang, Xây dựng ứng dụng Web bằng PHP & MySQL, Nhà xuất bản Phương Đông

[3] Jason Cole, Using Moodle, O'REILLY® COMMUNITY PRESS

[4] Trang chủ của Moodle: http://Moodle.com

[5] Cộng đồng Moodle Việt Nam: http://Moodle.org/course/view.php?id=45

[6] Tài liệu trợ giúp về Moodle: http://Moodle.org/help

[7] Trung tâm tin học bộ giáo dục và đào tạo: http://el.edu.net.vn

[8] Các tài nguyên của Moodle: http://Moodle.org/mod/resource/view.php?id=3856

[9] Kho tài liệu Moodle: http://docs.Moodle.org