Library Management Program

ICTU Student 2
Thai Nguyen University of Information and Communication Technology
Thai Nguyen University, Thai Nguyen, Vietnam

***Abstract*—This thesis focuses on the design and implementation of a library management system using Active Server Pages (ASP) and SQL Server. The system manages books and readers, with functionalities for registration, login, book search, borrowing, returning, statistics, and staff updates. The research provides a theoretical background on web technologies, ASP, and UML, and details the system's architecture and database design. The system was implemented using ASP for server-side scripting and SQL Server for database management. The implemented functionalities include user registration, login, book search, borrowing, returning, statistics, and staff updates. However, the system is limited in scope, as it only manages student readers and books, and does not cover non-student readers or postgraduate books. The research suggests that the system could be expanded to manage different types of media such as tapes, newspapers, and magazines. Future work could include enhancing the system to manage a wider range of readers and book types.**

***Index Terms*—Active Server Pages, SQL Server, Unified Modeling Language, Library Management, Web Technologies**

I. Introduction

The thesis introduces the theoretical foundations of web technologies, including the World Wide Web, HTML, and Active Server Pages (ASP). It also covers Unified Modeling Language (UML) and SQL Server database management. The research aims to develop a library management system that can handle book and reader information, with functionalities for registration, login, book search, borrowing, returning, statistics, and staff updates. The system is designed to be used by administrators, librarians, and readers, with functionalities for updating information, borrowing, returning, and searching books. The research highlights the need for further development to address limitations and expand the system's capabilities. [1]

II. Methods

The methods section covers the theoretical background on web technologies, ASP, and UML. The system design includes detailed analysis of use cases (UC) for registration, login, book search, borrowing, returning, statistics, and staff updates. The system uses ASP for server-side scripting and SQL Server for database management. The use cases were analyzed to create UML diagrams for each functionality. The system was implemented using ASP and SQL Server, and the use cases were analyzed to create UML diagrams for each functionality. The system was designed to manage books and readers, with functionalities for registration, login, book search, borrowing, returning, statistics, and staff updates. [1]

Supervisor: ICTU Teacher 2, Thai Nguyen University of Information and Communication Technology.

III. Results

The system was designed to manage books and readers, with functionalities for registration, login, book search, borrowing, returning, statistics, and staff updates. The system was implemented using ASP and SQL Server, and the use cases were analyzed to create UML diagrams for each functionality. The implemented functionalities include user registration, login, book search, borrowing, returning, statistics, and staff updates. However, the system is limited in scope, as it only manages student readers and books, and does not cover non-student readers or postgraduate books. The research suggests that the system could be expanded to manage different types of media such as tapes, newspapers, and magazines. Future work could include enhancing the system to manage a wider range of readers and book types. [1]

IV. Discussion

The system was able to handle basic functionalities such as book and reader management, but it did not fully cover non-student readers or postgraduate books. The research suggests that the system could be expanded to manage different types of media such as tapes, newspapers, and magazines. Future work could include enhancing the system to manage a wider range of readers and book types. The system's limitations include its inability to manage non-student readers and postgraduate books, as well as its limited scope in terms of the types of media it can manage. The research highlights the need for further development to address these limitations and expand the system's capabilities. [1]

V. Conclusion

The thesis concludes that the developed library management system, while limited in scope, provides a foundation for managing books and readers on a computer. The system was designed to be used by administrators, librarians, and readers, with functionalities for updating information, borrowing, returning, and searching books. The research highlights the need for further development to address limitations and expand the system's capabilities. The system's limitations include its inability to manage non-student readers and postgraduate books, as well as its limited scope in terms of the types of media it can manage. The research suggests that the system could be expanded to manage different types of media such as tapes, newspapers, and magazines. Future work could include enhancing the system to manage a wider range of readers and book types. [1]

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