Multiple Choice Examination Program for Hiep Hoa 3 High School

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***Abstract*—This thesis focuses on the development of a multiple-choice examination program for Hiệp Hòa 3 High School. The author explores the theoretical foundations of the .NET environment, programming languages, and multiple-choice testing methods. The program aims to assist teachers in reducing the difficulty and errors in their work, saving time in test preparation and grading, and enhancing the learning experience for students. Despite the significant requirements of the project, the author was unable to fully meet all practical needs due to limited time and personal skill constraints. However, the author successfully implemented basic functionalities of the program during their internship, contributing to the automation of examination processes in education. The program successfully implemented data management, test question handling, and result reporting, but faced limitations in fully addressing the needs of the school.**

***Index Terms*—multiple choice, examination program, VB.NET, data management, education**

I. Introduction

The thesis introduces the development of a multiple-choice examination program for Hiệp Hòa 3 High School. It covers the theoretical foundations of the .NET environment, programming languages, and multiple-choice testing methods. The author discusses the benefits of using computer-aided multiple-choice testing, including reduced workload for teachers and enhanced student engagement. The project aims to automate the examination process, thereby improving the efficiency of educational assessment. However, the author acknowledges the limitations of the project due to time and skill constraints [1]. Related earlier ICTU undergraduate theses provide context for this English summary [5]. Published articles on the methods and subject of this project provide context for this English summary [6], [7]. Published books on the methods and subject of this project provide context for this English summary [8].

II. Methods

The author delved into the .NET environment, VB.NET programming, and multiple-choice testing methods. They designed and implemented a basic multiple-choice examination program, focusing on essential functionalities such as data management, test question handling, and result reporting. The program was developed using Visual Basic .NET and incorporated various programming constructs, including conditional statements and data structures. The author also explored the use of ADO.NET for database management, enabling the program to interact with SQL Server 2008. The program was tested and validated through practical implementation during the author's internship at Hiệp Hòa 3 High School [1].

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III. Results

The program successfully implemented basic functionalities, including data management, test question handling, and result reporting. The author was able to create a user-friendly interface for teachers to input and manage test questions, as well as generate and display results. However, due to time and skill constraints, the author was unable to fully meet all practical needs of the project. The program did not include advanced features such as automatic grading or detailed analytics, which could have further enhanced its utility for teachers and students [1].

IV. Discussion

The program demonstrated the potential to automate multiple-choice examination processes, reducing the workload for teachers and enhancing student engagement. However, the author acknowledged the limitations and expressed a desire for further improvements and feedback from educators. The program's success in implementing basic functionalities suggests that it could be a valuable tool for schools looking to streamline their examination processes. Future work could focus on integrating more advanced features and addressing the limitations identified in this project [1]. Earlier ICTU undergraduate work by Phạm Thị Huyền addressed online multiple-choice examination systems [4].

V. Conclusion

The thesis concluded that the development of a multiple-choice examination program can significantly improve the efficiency of educational assessment. While the project faced limitations, the author successfully implemented basic functionalities, contributing to the automation of examination processes in education. The program's success in automating data management and result reporting indicates its potential for broader application in educational settings. The author expressed a desire for further improvements and feedback from educators to enhance the program's effectiveness [1].

References

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