Development of an Automated Question Bank System for Writing Exams

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***Abstract*—This thesis focuses on the development of an automated question bank system for writing exams using Visual Basic.NET. The system aims to optimize the management of question generation and database operations. The author successfully implemented algorithms for automatic code generation, random question and answer generation, and integrated Microsoft Word into the program for question and exam formatting. However, the system has limitations in network application and flexibility in exam generation. The research involved a detailed analysis of the current system, design of the system, and the development of the program using Visual Basic.NET. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. The implemented functions include automatic code generation, random question and answer generation, and Word integration for formatting. However, the system was not fully optimized for network applications and lacked flexible exam generation options.**

***Index Terms*—Visual Basic.NET, question bank, automated generation, SQL Server, Word integration**

I. Introduction

The thesis addresses the practical needs of exam question generation, particularly in writing exams. The author chose this topic to improve the efficiency and accuracy of the process. The research scope includes the analysis of the current system, design of the system, and the development of the program using Visual Basic.NET. The author aimed to develop a system that could handle the generation of questions and answers efficiently, while also integrating Microsoft Word functionalities for formatting. The system was designed to manage data using SQL Server and to generate questions and answers with minimal user input. The research involved a detailed analysis of the current system, design of the system, and the development of the program using Visual Basic.NET. [1]

II. Methods

The methods involved the study of Visual Basic.NET, including its user interface, base class library, and common language runtime. The author also integrated Word functionalities into the program to handle question and exam formatting. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. The author conducted a detailed analysis of the current system, designed the system, and developed the program using Visual Basic.NET. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. The author integrated Word functionalities into the program to handle question and exam formatting. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. [1]

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III. Results

The system successfully implemented algorithms for automatic code generation, random question and answer generation, and integrated Word functionalities. However, the system was not fully optimized for network applications and lacked flexible exam generation options. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. The author successfully implemented algorithms for automatic code generation, random question and answer generation, and integrated Word functionalities. However, the system was not fully optimized for network applications and lacked flexible exam generation options. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. [1]

IV. Discussion

The developed system demonstrated the ability to handle question and answer generation efficiently. However, it faced limitations in network application and lacked flexibility in generating exams with varying numbers of questions. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. The author successfully implemented algorithms for automatic code generation, random question and answer generation, and integrated Word functionalities. However, the system was not fully optimized for network applications and lacked flexible exam generation options. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. [1]

V. Conclusion

The author successfully developed an automated question bank system using Visual Basic.NET, which improved the efficiency of question and answer generation. However, the system needs further development to support network applications and flexible exam generation. The system was developed

to manage data using SQL Server and to generate questions and answers with minimal user input. The author successfully implemented algorithms for automatic code generation, random question and answer generation, and integrated Word functionalities. However, the system was not fully optimized for network applications and lacked flexible exam generation options. The system was developed to manage data using SQL Server and to generate questions and answers with minimal user input. [1]

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