Construction of a Business Tax Management Program for the Tax Office of Thai Nguyen City

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***Abstract*—This thesis focuses on the development of a program for managing domestic business taxes in Thai Nguyen City, Vietnam. The research explores the use of object-oriented analysis and design with UML and Rational Rose software. The study covers the application of UML for modeling the tax management system and the implementation of the system using C#. The program was developed to address the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security.**

***Index Terms*—object-oriented, UML, Rational Rose, tax management, C#, Thai Nguyen**

I. Introduction

The thesis aims to understand object-oriented analysis and design using UML and Rational Rose software. It addresses the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. The research also aims to develop a practical application for the tax office in Thai Nguyen City. The study focuses on the use of UML for modeling the tax management system and the implementation of the system using C#. The research covers the application of UML for modeling the tax management system and the implementation of the system using C#. The program was developed to address the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security. [1]

II. Methods

The methods involve studying UML and Rational Rose, conducting a real-world survey of the tax management system at the Thai Nguyen City Tax Office, and designing and implementing a tax management program using C#. The research covers the application of UML for modeling the tax management system and the implementation of the system using C#. The program was developed to address the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security. [1]

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III. Results

The research successfully developed a tax management program using C# and UML. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. The program included basic functions such as data entry, deletion, and update of tax records. The program also included a function to check the existence of a record. However, the program did not include advanced features such as network-based data management and security. The program was tested with a few sample data entries and deletions, and it performed as expected. However, the program was not thoroughly tested with a large dataset, and no performance evaluation was conducted. [1]

IV. Discussion

The limitations of the program include its simplicity and lack of advanced features. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security. The program was developed to address the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security. [1]

V. Conclusion

The thesis concludes that object-oriented analysis and design with UML can effectively model complex systems.

The developed program provides a practical solution for tax management in Thai Nguyen City, but there is room for improvement in terms of functionality and user experience. The program was developed to address the challenges of tax management in the context of increasing business activities and the need for efficient tax collection systems. However, due to time constraints and limited experience, the program was found to be relatively simple and not fully optimized for user needs. Future work could involve further studying tax-related business processes to enhance the program's functionality and developing a network-based version for better data management and security. [1]

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