# Customer File Management System of Provincial Post Office in Thai Nguyen

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***Abstract*—This thesis focuses on the development of a customer file management system for the provincial post office in Thai Nguyen, utilizing XML and LINQ technologies. The system allows for quick customer information retrieval, service registration, and contract termination. It also includes a user-friendly interface. The research covers the theoretical foundations of XML and LINQ, their applications, and the implementation of these technologies in the system. The system was completed within the specified timeframe. Future development plans include applying XML for data exchange between systems and enhancing the existing system. The thesis also highlights the importance of understanding and utilizing LINQ TO XML technology.**

***Index Terms*—XML, LINQ, customer file management, data storage, data querying**

## I. Introduction

The thesis provides an in-depth overview of XML and LINQ technologies, including their definitions, benefits, and applications. XML is introduced as a markup language for storing and transporting data, emphasizing its flexibility and self-descriptive nature. LINQ, on the other hand, is described as a powerful query language for querying and transforming data. The system developed in this thesis is designed to manage customer files efficiently, allowing for quick customer information retrieval, service registration, and contract termination. The system also features a user-friendly interface, enhancing the overall user experience [1].

## II. Methods

The thesis employs XML and LINQ technologies to develop a customer file management system. XML is used for data storage, enabling the system to handle and manage customer information in a structured manner. LINQ is utilized for data querying and transformation, providing a flexible and powerful way to manipulate data. The system is designed to be user-friendly and efficient in managing customer information. The development process involved coding in C#.Net and ASP.Net, with the use of XML and LINQ to implement the required functionalities [1].

## III. Results

The developed system allows for quick customer information retrieval, service registration, and contract termination. It includes a user-friendly interface, making it easy for users to interact with the system. The system was completed within the specified timeframe. The implementation of XML and LINQ technologies in the system was successful, providing a robust and efficient solution for managing customer files. However, no specific performance metrics or evaluations were provided to measure the system's effectiveness [1].

## IV. Discussion

The system successfully integrates XML and LINQ technologies to manage customer files efficiently. The use of XML for data storage and LINQ for data querying and transformation demonstrates the system's capability to handle complex data operations. Future development plans include applying XML for data exchange between systems, which will enhance the system's interoperability. The thesis also highlights the importance of understanding and utilizing LINQ TO XML technology, as it provides a powerful tool for data manipulation and querying. However, the current system does not include detailed performance evaluations or comparisons with other systems [1].

## V. Conclusion

The thesis concludes that the developed system effectively manages customer files using XML and LINQ technologies. It provides a user-friendly interface and supports quick information retrieval, service registration, and contract termination. The system was completed within the specified timeframe. Future work will focus on enhancing the system and exploring the application of LINQ TO XML in other systems. The thesis emphasizes the importance of understanding and utilizing these technologies for efficient data management in the context of a customer file management system [1].

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