Online Postal Management System for Luc Yen District Post Office

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***Abstract*—This thesis focuses on the development of an online postal management system for the Lu Lyen District Post Office in Yen Bai Province, Vietnam. The system aims to facilitate the management of postal services, allowing customers to track their packages and access service pricing without visiting the post office. The research includes a detailed examination of the current postal operations and the design of a web-based system with user roles for administrative control. The system was developed using UML diagrams and web-based software development techniques, providing a user-friendly interface accessible from anywhere and at any time. The system includes functionalities for tracking packages, viewing service prices, and managing different administrative levels. Future improvements are suggested, including additional functionalities for staff management and reporting.**

***Index Terms*—Online postal management, UML diagrams, Web-based system, Role-based access control, Customer tracking, Service pricing**

I. Introduction

The introduction discusses the history of the Internet and its evolution, emphasizing the benefits of online management systems. The thesis aims to develop an online postal management system for the Lu Lyen District Post Office, which will provide convenience for both postal staff and customers. The post office, located in Lục Yên District, Yen Bai Province, Vietnam, is a key service provider in the region, offering a wide range of postal services. The current postal operations involve various services such as package and letter delivery, and the post office has multiple branches and employees. The system will be designed to streamline these operations and enhance customer service [1]. Published books on the methods and subject of this project provide context for this English summary [5], [6].

II. Methods

The methods section details the system analysis and design, including the use of UML diagrams and web-based software development. The system is designed to be accessible from anywhere and at any time, with different user roles for administrative control. The research involved a thorough examination of the current postal operations, including the handling of packages and letters, and the design of a web-based system with user roles for administrative control. The system was developed using UML diagrams to ensure a clear and structured design, and web-based software development techniques were employed to create a user-friendly interface. The system includes functionalities for tracking packages, viewing service prices, and managing different administrative levels [1].

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III. Results

The results include the development of a web-based postal management system that allows customers to track their packages and view service prices online. The system also includes role-based access control for different administrative levels. The system was implemented using ASP.NET 2.0 and Visual Basic.NET, and the UML diagrams were used to ensure a clear and structured design. The system was tested with a sample dataset, and the results showed that it could effectively track packages and provide service pricing information. The system was also tested with different user roles, and the results showed that it could manage different administrative levels effectively [1].

IV. Discussion

The discussion highlights the benefits of the online system, such as increased accessibility and efficiency. Future improvements are suggested, including additional functionalities for staff management and reporting. The online system will provide a more convenient and efficient way for customers to access postal services, and it will also provide postal staff with better tools for managing their operations. The system was tested with a sample dataset, and the results showed that it could effectively track packages and provide service pricing information. The system was also tested with different user roles, and the results showed that it could manage different administrative levels effectively. However, the system has some limitations, such as the need for a stable internet connection and the potential for technical issues [1].

V. Conclusion

The conclusion summarizes the achievements and future directions for the system, emphasizing the need for further development to meet the needs of a fully functional postal office. The system was developed using UML diagrams and web-based software development techniques, providing a user-friendly interface accessible from anywhere and at any time. The system includes functionalities for tracking packages,

viewing service prices, and managing different administrative levels. The system was tested with a sample dataset, and the results showed that it could effectively track packages and provide service pricing information. The system was also tested with different user roles, and the results showed that it could manage different administrative levels effectively. The system has the potential to significantly improve the efficiency and accessibility of postal services in the region, but further development is needed to address some limitations [1].

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