Construction of an Online Auction System for Company AHT

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***Abstract*—This thesis explores the development of an online auction system for Company AHT, focusing on the various auction forms and their applications in Vietnam. The author gained new programming skills, particularly in PHP, MySQL, Ajax, and JavaScript, and created a comprehensive system design analysis with advanced features. The system was implemented using modern techniques to ensure optimal performance and customer service. However, some requirements were not fully met due to time and resource constraints. The author discusses the challenges faced during the implementation, such as hardware and software requirements, and the need for skilled personnel. The system's performance and user experience were evaluated, but no specific numerical results were provided. The thesis concludes that the online auction system for Company AHT was successfully developed, though it acknowledges the limitations due to time and resource constraints. The author expresses a desire for feedback to improve the system for practical application.**

***Index Terms*—online auction, system design, UML, PHP, MySQL**

I. Introduction

The thesis begins with an overview of different auction forms, including English, Dutch, sealed-bid, and Vickrey auctions. It then delves into the benefits and components of an online auction system, emphasizing its potential in the Vietnamese market. The author discusses the various types of auctions, their characteristics, and the advantages of using online platforms for conducting auctions. The introduction also highlights the importance of understanding the different auction mechanisms and their applicability in the Vietnamese context. The author notes that while online auctions offer numerous benefits, such as increased transparency and accessibility, they also present challenges, such as ensuring security and preventing fraud. The introduction concludes by emphasizing the need for a well-designed system that can effectively support the various auction forms and meet the specific needs of Company AHT [1]. Published books on the methods and subject of this project provide context for this English summary [9], [10].

II. Methods

The methods section covers the requirements analysis, system design, and implementation of the online auction system. The author used UML and other modern software development techniques to create a detailed system design, including user case analysis and database design. The requirements analysis involved gathering information from Company AHT to understand their specific needs and constraints. The system design included creating a detailed architecture, defining the user roles and functionalities, and designing the database schema. The implementation phase involved coding the system using PHP and MySQL, integrating Ajax and JavaScript for enhanced user interaction, and testing the system to ensure it met the specified requirements. The author faced several challenges during the implementation, such as ensuring compatibility with existing systems and managing resource constraints [1].

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III. Results

The system was successfully implemented, providing a range of functionalities such as registration, login, product management, and bidding. The author implemented various auction forms, including English, Dutch, sealed-bid, and Vickrey auctions, to cater to different types of products and scenarios. However, some requirements were not fully met due to time and resource constraints. For instance, the system did not include advanced features such as real-time bidding notifications or automated price adjustments. The author conducted a preliminary evaluation of the system's performance and user experience, but no specific numerical results were provided. The system was tested with a small group of users, and feedback was collected to identify areas for improvement. The author acknowledges that the system's performance and user experience could be further optimized with additional resources and time [1].

IV. Discussion

The author discusses the challenges faced during the implementation, such as hardware and software requirements, and the need for skilled personnel. The author notes that the system's performance and user experience were evaluated, but no specific numerical results were provided. The author highlights the importance of a well-designed system that can effectively support the various auction forms and meet the specific needs of Company AHT. The author also emphasizes the need for continuous improvement and feedback to enhance the system's functionality and usability. The author suggests that the system could be further developed by incorporating

advanced features such as real-time bidding notifications, automated price adjustments, and enhanced security measures. The author also notes that the system's performance could be improved by optimizing the database schema and improving the user interface. The author concludes that the online auction system for Company AHT was successfully developed, though it acknowledges the limitations due to time and resource constraints [1].

V. Conclusion

The thesis concludes that the online auction system for Company AHT was successfully developed, though it acknowledges the limitations due to time and resource constraints. The author expresses a desire for feedback to improve the system for practical application. The author concludes by emphasizing the importance of a well-designed system that can effectively support the various auction forms and meet the specific needs of Company AHT [1].

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