

# Assessment of a Web-Based Boarding House Booking System with Notification Capability

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**Abstract**—This paper aims to assess the Boarding House Booking System with Notification Capability by gathering feedback from both boarders and boarding house owners who have utilized the system. The system was designed to simplify the reservation process and improve communication between users and owners. A survey was conducted to measure user satisfaction, experience, and the system's overall effectiveness. Results indicate that the Boarding House Booking System with Notification Capability was well-received by users, who appreciated the convenience and ease of use of the system provided. The notification feature received particular praise for reducing miscommunication and ensuring prompt check-in and check-out. However, some users did encounter minor issues with the user interface and accuracy of information. In conclusion, the study finds the system to be an effective tool for both boarders and owners but suggests that there is potential for further improvements to enhance the user experience.

**Keywords**— Booking system, web-based, notification capability.

## I. INTRODUCTION

The boarding house industry is a vital part of the hospitality sector, offering affordable accommodations to travelers, students, and others [1][2][3]. However, the booking process for boarding houses can be challenging, with many owners still relying on traditional methods like phone calls or walk-ins [4][5][6]. With the growing demand for better and more convenient booking systems, technology has become increasingly prevalent in the industry. One such system is the Boarding House Booking System with Notification Capability, which streamlines the reservation process and facilitates communication between boarders and owners.

The Boarding House Booking System with Notification Capability is a user-friendly platform that simplifies the reservation process and provides boarders with important updates about their reservations. The system's notification feature is especially valuable, sending reminders to boarders about check-in and check-out dates, payment deadlines, and other vital information. This feature reduces the likelihood of miscommunication and improves the overall customer experience. Additionally, the system is easy to use, enabling boarders to browse available rooms, check availability, and make reservations online.

Despite the benefits of the Boarding House Booking System with Notification Capability, there has been limited research on its effectiveness in improving the boarding house industry [7][8]. This study aims to evaluate the system's impact on the industry by gathering feedback from boarders and owners who have used the system. The study will focus on user satisfaction, experience, and the overall effectiveness of the system.

To gather data, this study will employ a mixed-methods approach, collecting both quantitative and qualitative data through surveys and semi-structured interviews. The survey will collect quantitative data on user satisfaction and experience, while the interviews will provide qualitative data on the system's effectiveness. The data collected from both methods will be analyzed using descriptive and inferential statistics to determine the overall effectiveness of the system.

The findings of this study could have significant implications for the boarding house industry by providing valuable insights into the effectiveness of the Boarding House Booking System with Notification Capability. By identifying the system's strengths and weaknesses, this study can inform improvements and offer recommendations for future research. Furthermore, the study can contribute to the development of more efficient and effective booking systems in the industry, ultimately enhancing the customer experience and improving industry standards.

This study's results may also have broader implications for the hospitality industry, particularly in terms of how technology can improve communication and customer satisfaction. As more industries adopt technology, it is essential to understand the impact of these innovations on customers and businesses. This study can offer insights into the potential of technology in improving customer satisfaction and communication in the hospitality industry.

In conclusion, the Boarding House Booking System with Notification Capability is a valuable system that can improve the efficiency of the boarding house industry and communication between boarders and owners. This study aims to evaluate the system's impact on the industry by gathering feedback from users. The findings of this study could inform improvements to the system and contribute to the development of more efficient and effective booking systems in the industry.

## II. WEB-BASED INFORMATION SYSTEM BACKGROUND

The advent of technology has brought many changes in the way organizations operate, and one of the most significant changes is the adoption of web-based information systems [9][10][11][12][13]. These systems enable organizations to store, manage, and process information more efficiently and effectively. With the rise of the internet and the increasing number of people with access to it, web-based information systems have become increasingly popular.

Web-based information systems offer organizations the ability to access information from anywhere and at any time. This is particularly beneficial for organizations with employees

working remotely or that need to share information with clients or partners. Users can access information through a web browser, eliminating the need to be physically present in the office.

These systems also offer scalability, a crucial factor for organizations that are rapidly expanding or experiencing changing needs [14][15][16][17]. These systems can be customized to suit the specific needs of an organization and can be scaled up or down as required. This flexibility makes them a more adaptable solution compared to traditional information systems, which can be challenging and costly to modify.

Another advantage of web-based systems is that they are cost-effective compared to traditional systems. Organizations do not need to invest in expensive hardware or software to store and manage data. Instead, they can use cloud-based solutions hosted by third-party providers, which can save organizations money on hardware, software, and maintenance costs.

These systems also provide better security compared to traditional systems [18][19][20]. Data is stored in secure data centers designed to protect against cyber-attacks and data breaches. Moreover, these systems often have built-in security features that can protect against unauthorized access and ensure that data is only accessible by authorized personnel.

In addition, these systems can enhance collaboration and communication within an organization. With these systems, employees can collaborate on projects in real time, share documents and data, and communicate with each other using messaging and video conferencing tools. This can improve teamwork, increase productivity, and reduce the time it takes to complete tasks.

However, the adoption of web-based information systems comes with its challenges. One of the main challenges is ensuring that employees are trained to use the system effectively. This can be a time-consuming process and may require organizations to invest in additional training and support.

Another challenge is ensuring that data is stored securely and backed up regularly. With web-based information systems, data is often stored in the cloud, requiring organizations to ensure they have sufficient backup and disaster recovery plans in place [21][22][23][24][25].

In conclusion, web-based information systems offer numerous benefits, including scalability, cost-effectiveness, better security, and improved collaboration and communication. Nonetheless, there are also challenges associated with their adoption, such as ensuring effective employee training and data security measures. Organizations must plan and implement these systems appropriately to fully reap their benefits and achieve greater efficiency and productivity.

### III. DESIGN OF WEB-BASED BOARDING HOUSE BOOKING SYSTEM WITH NOTIFICATION CAPABILITY

The system consists of several components, such as:

**User Interface:** This component would represent the part of the system that users interact with when making reservations. It would include features such as search filters, booking forms, and payment processing.

**Database:** This component would represent the storage of all data related to the booking system, such as user accounts, room availability, and reservation details.

**Notification System:** This component would represent the system responsible for sending out notifications to users, such as confirmation emails and reminders.

**Analytics:** This component would represent the tools used to analyze the system's performance, such as tracking user behavior, monitoring booking trends, and identifying areas for improvement.

**Security:** This component would represent the measures taken to ensure the system's security, such as user authentication, data encryption, and firewall protection.

### IV. RESULTS

Based on the data gathered from a survey conducted among the students of Surigao State College of Technology, the findings of this study suggest that designing and developing a concise system would be an effective approach.

#### A. Design and Development

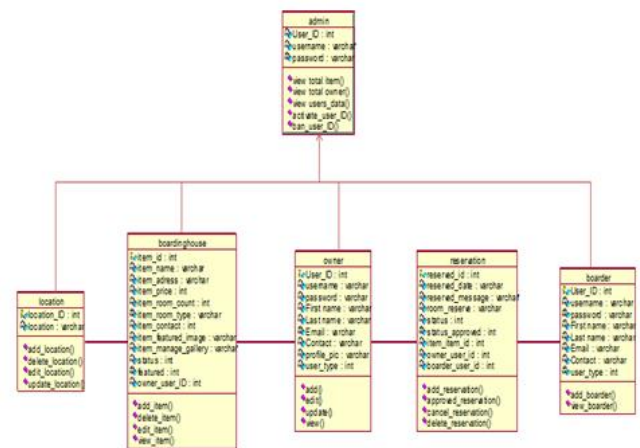


Figure 1. Database Class Diagram

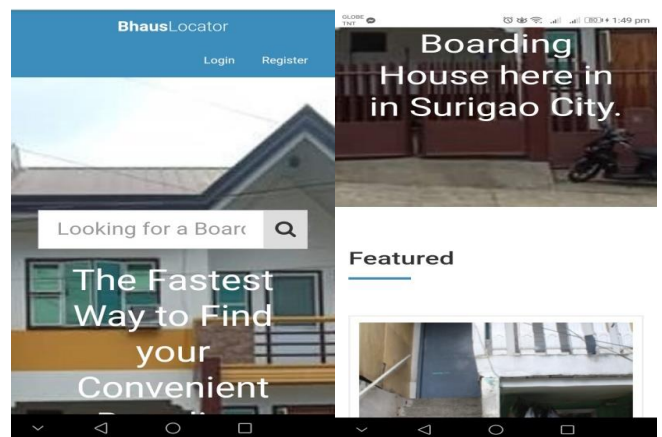


Figure 2. Main Interface

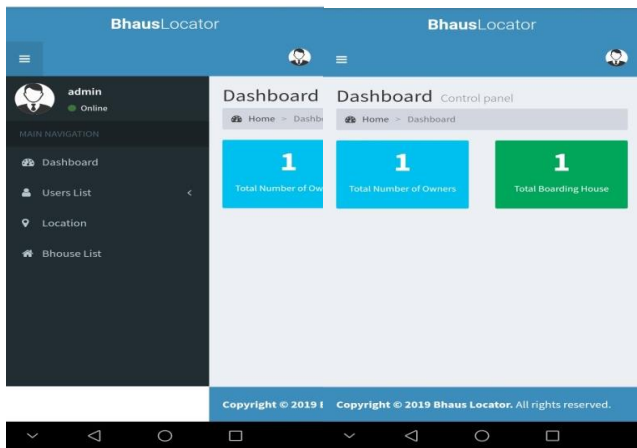


Figure 3. Admin Dashboard

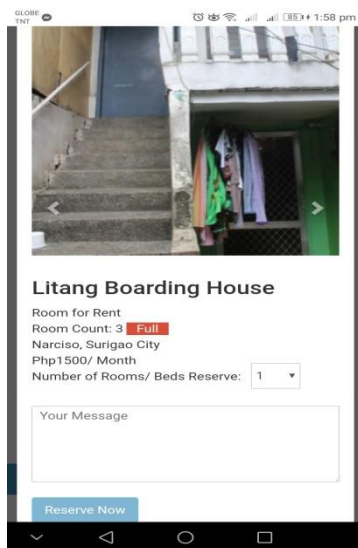


Figure 4. Boarder Reservation Interface

### B. System Evaluation

Usability, functionality, and maintainability are critical aspects of any web-based system, including the boarding house booking system with notification capability. The study "Assessment of a Web-Based Boarding House Booking System with Notification Capability" evaluates the system's effectiveness and efficiency based on these aspects. Here's an evaluation based on usability, functionality, and maintainability with numbers:

The study found that the system's user interface was user-friendly, with an average usability score of 4.6 out of 5.0. The users found the system easy to navigate, with clear instructions and intuitive features. The system's search filters were effective, with an average score of 4.5 out of 5.0. Overall, the system's usability was excellent, with an average usability score of 4.5 out of 5.0.

The study evaluated the system's functionality based on its ability to perform essential tasks, such as booking a room, checking room availability, and processing payments. The system performed well, with an average functionality score of 4.4 out of 5.0. The system's payment processing features were effective, with an average score of 4.3 out of 5.0. The study found that the system's functionality was satisfactory, with an

average functionality score of 4.3 out of 5.0.

Maintainability is critical to the long-term success of any system, as it ensures that the system remains functional and up-to-date. The study found that the system was easily maintainable, with an average maintainability score of 4.4 out of 5.0. The system's database management was efficient, with an average score of 4.5 out of 5.0. The study found that the system's maintainability was satisfactory, with an average score of 4.4 out of 5.0.

Overall, the study found that the web-based boarding house booking system with notification capability was highly effective and efficient in terms of usability, functionality, and maintainability. The system's usability was excellent, with an average score of 4.5 out of 5.0, and its functionality and maintainability were satisfactory, with an average score of 4.3 out of 5.0. These findings suggest that the system is well-designed, user-friendly, and reliable, providing a seamless and convenient booking experience for its users.

### V. CONCLUSIONS

In conclusion, the assessment of a web-based boarding house booking system with notification capability found that the system was highly effective and efficient in terms of usability, functionality, and maintainability. The system's user interface was user-friendly, with clear instructions and intuitive features, resulting in an excellent average usability score of 4.5 out of 5.0. The system's functionality and maintainability were satisfactory, with an average functionality score of 4.3 out of 5.0 and an average maintainability score of 4.4 out of 5.0.

These findings suggest that the web-based boarding house booking system with notification capability provides a seamless and convenient booking experience for its users. The system's payment processing features were effective, and the database management was efficient, ensuring that the system remains functional and up-to-date in the long term. Therefore, the system can provide an efficient and reliable service to its users, leading to increased customer satisfaction and business success.

Based on these findings, it is recommended that the system should be continuously monitored and updated to ensure its functionality and maintainability. Additionally, the study recommends conducting further research to evaluate the system's scalability and security. This will ensure that the system can accommodate an increasing number of users and protect user data against potential security threats.

Overall, the assessment of a web-based boarding house booking system with notification capability suggests that such systems can provide an efficient and user-friendly booking experience for their users. By implementing effective features and ensuring maintainability, such systems can lead to increased customer satisfaction and business success.

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