

RESEARCH ARTICLE

Online Information System for Bulacan State University Hostel

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Abstract

The main purpose of this study is to design and develop an “Online Information System for Bulacan State University Hostel”. Different functionalities were incorporated into the developed system like the creation of different user account for the staff/front desk and online customers, prices updates through online admin portal, payments thru bank account, confirmation thru email after reservation, report generation concerning income, number of customers and monthly report, counting the numbers of viewers and settings for rates, taxes and other discounts. Visual Basic. Net and ASP Net. were used for the system front-end while Microsoft Access was used as the database application as well Crystal Report was used to display reports. Software Development Life Cycle (Waterfall Model) was used as the development model. The developed system was evaluated using the different software criteria like Functionality, Accuracy, Reliability, User-friendliness, and Security and all of them were interpreted as “Strongly Agree” based on the equivalent ratings presented in the Likert scale. The proponent deployed the system through web hosting with an address <http://hostel.bulsu.edu.ph/Gallery.aspx>.

Introduction

Managing customer reservations, although a vital component is generally viewed as time-consuming and tedious, so online hotel reservations are becoming very popular method for booking hotel rooms which is generally the best option to automate and improve their booking processes. Prior to the Internet, travelers could write, telephone the hotel directly, or use a travel agent to make a reservation. Online hotel reservations are also helpful for making last minute travel arrangements. Hotels may drop the price of a room if some rooms are still available. In Bulacan State University (BulSu), Hostel started in 2005 caters the growing number of clientele who wants a comfortable and convenient place to stay while taking short-term courses in the University or attending conferences or seminars within the campus. The BulSu hostel is a budget-oriented, shared-room accommodation that accepts individual travelers or groups for short-term stays. In some countries the word hostel can also refer to student accommodation that provides common areas and communal facilities. The University Hostel is also popular among foreign students and guests of the University. The Hostel 45 rooms as well the facilities are also made available for the interests of the students of the university. Students taking up Hotel and Restaurant Administration likewise use the facility for their on-the-job training.

Objectives

The main objective of this study is to develop an

Online Information System for Bulacan State University Hostel. In specific, this study considered the following:

- Maintenance features for the user account, prices update, payments, confirmation thru email after reservation and report generation;
- Dynamic web content management of the system;
- Determining the level of acceptability of the developed system in terms of the following criteria: functionality, accuracy, reliability, user-friendliness, and security.

Methodology

This study is an applied research which aims at improving a product or a process and even producing results of immediate practical application. In this study, the proponent designed and developed an Online Information System for Bulacan State University Hostel believing to improve the present customer reservations and record keeping system.

Figure 1 presents the Visual Table of Contents (VTOC) of the Information System of BulSu Hostel which is intended for the use of the Hostel staffs in the front office of the system intended for clients use. The system provided different user-level which can be used by the staff or front desk, online customers and administrators.

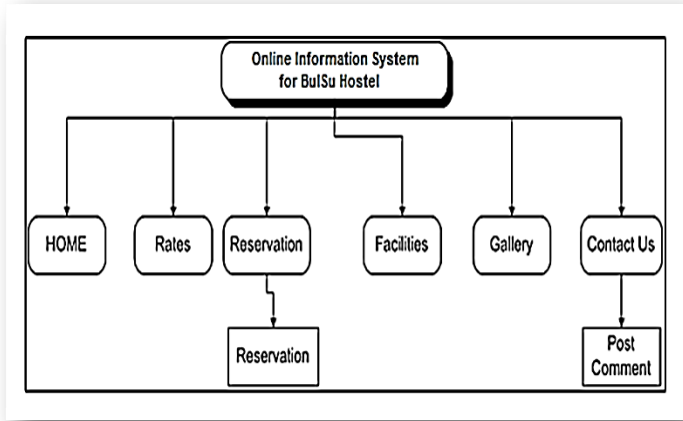


Fig. 1: Visual table of contents of BSU hotel reservation system for front office

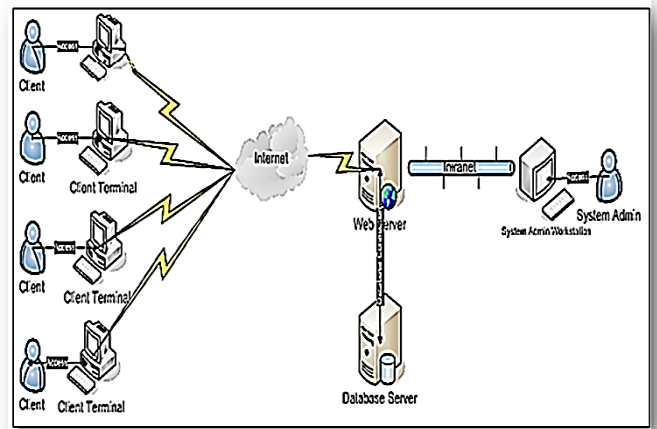


Fig. 3: The client's access to the website

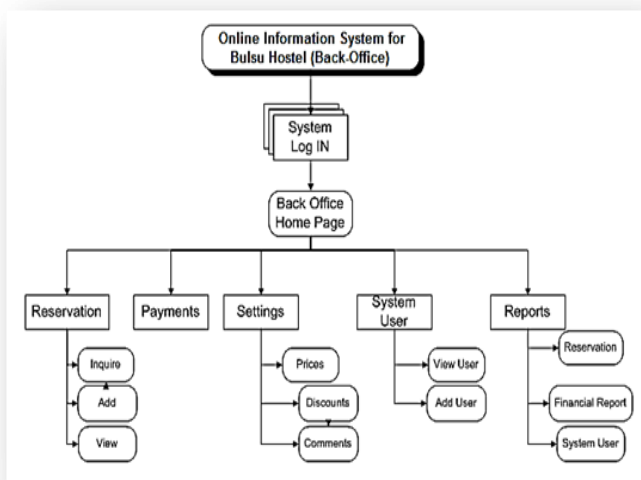


Fig. 2: Visual table of contents of BSU hotel reservation system for back office

Figure 2 shows the flow chart of the back office part of the website. Only the administrator could access the back office of the system. However, the administrator can create an account for the staff or front desk and other authorized users to maintain and monitor every transaction done online.

Figure 3 shows the client's access to the website via internet through their computer terminal. The reservation process of BulSu Hostel could be done through online transaction as shown in

Figure 4. However, there are some instances that the customer is not actually using an internet in order to have their reservation. They visit the Hostel office as walk-in customer to select and specific room and date to be reserved.

Figure 5 shows the illustration of the walk-in reservation process. For the customer to make reservation, the following steps must be followed:

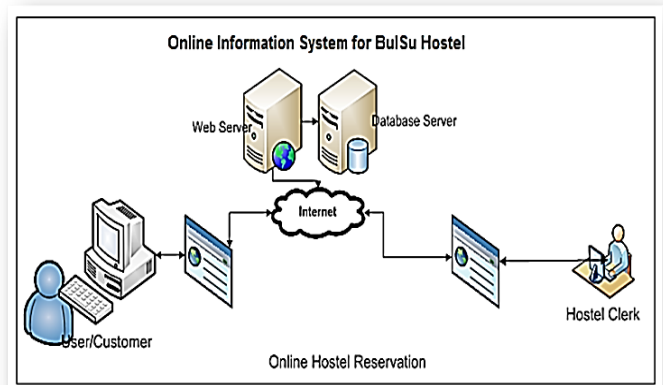


Fig. 4: Online reservation process

Step1: Customer inquiries at the Hostel Clerk about the room availability. Step 2: The Hostel clerk will log in to the System Back Office. He will ask for the date of reservation and what to reserve. Using the System, the clerk can give the availability of the rooms/function hall and the number of vacant rooms.

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Step 3: Once the customer decided to avail the vacant rooms, the clerk will ask the user the basic information for profiling purposes.

Step 4: The clerk will ask the customer if the payment will be done or not to confirmed the reservation. Once the user decided to pay the down payments it will automatically confirmed the reservation.

Step 5: The system will generate an invoice of the partial payments of the customer. Reservation Completed.

Step 6: Reserved room can be cancelled based on the customer and the management agreement.

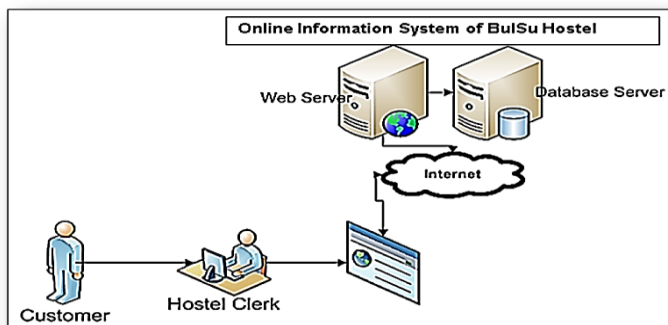


Fig. 5: Walk-in reservation process

In determining the level of acceptability of the developed software, the administrator and staff of the BulSu Hostel were given an evaluation questionnaire and asked to evaluate the developed system. IT experts and programmers were also asked to evaluate the website through the use of the different criteria for software quality evaluation like Functionality, Accuracy, Reliability, User-friendliness, and Security.

Results and Discussions

Developing a web site includes web design, web content development, client cooperation, client-side/server-side scripting, web server, network security configuration, and e-commerce development [1].

Figure 6 is the Home page of BulSu Hostel Information System. During the development, the web design, content and navigation rules were considered in order for the user to navigate easily around the website. The customer can navigate from the home page, and can view the Rates and other packages available.



Fig.6: BulSu hostel home page

Figure 7 is the Reservation page at the Front Office which shows the 5 steps for selecting the date and selecting room. The customer can also see the reserved room already.



Fig. 7: the Reservation page

Hostel rules and policy is also included in this page so that the customer could be familiar and be guided with the rules and regulations while staying at the Hostel. Figure 8 is the last step in completing the reservation process.



Fig. 8: Confirm reservation form

The summary of the submitted information of

the customer will be displayed for checking purposes. Reservation payment procedure is also included in this form. At the lower part of the form is a note for the customer to wait an email confirmation within 24 hours with a confirmation link. The confirmation link will be expired within 72 hours or 3 days after receiving the email. Contact numbers will be included in the email.



Fig. 9: Back office reservation systems or the log-in form

The administrator or any authorized user can log-in into the system. The figure below will appear after clicking the Login button. Inside the System Back Office (Figure 10), the admin can navigate among the buttons at the left pane. Different buttons are available like Reservation, Payments, Settings, System User and Reports.



Fig. 10: Welcome form (system back office)

References

1. Kiran, Charles. "The Web Development Industry Is Expected To Grow Over 20 By 2010". Retrieved December 2013 at <http://www.articler.com/23205/The-Web-Development-Industry-Is-Expected-To-Grow-Over-20-By-2010.html>.

Conclusion

This study developed an "Online Information System for Bulacan State University Hostel" which can perform several functionalities in order to accommodate its growing number of customers.

The developed system can be accessed by different users from its Front Office which emphasize the best part of BulSu Hostel, its reservation process and other services. The Back Office on the other hand, could be accessed by the administrator and other authorized users only. In this account, the admin can easily edit or modify the content of the website from the reservation procedure, prices and rates to the different pictures in the gallery. The admin can also delete information, print reports and maintain the website through this account.

Various software specifications were used to develop the website. For the level of acceptability of the developed software, the administrator and staff of the BulSu Hostel evaluated the system.

IT experts and programmers were also asked to evaluate the website through the use of the different criteria for software quality evaluation. The computed total mean are as follows: Functionality acquired 4.87; Accuracy is 4.91; Reliability acquired 4.83; User-friendliness got 4.95; and Security garnered 4.89. All of the said criteria were interpreted as "Strongly Agree" based on the equivalent ratings presented in the Likert scale.

In order to test the developed system, the proponent deployed the system through web hosting with an address <http://hostel.bulsu.edu.ph/Gallery.aspx>. Part of Project Evaluation is to conduct post-implementation reviews at the end of the project to validate the completion of the developed system for assessment.