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Online Based Hotel Information System
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ABSTRACT

As with many occupations, computers and technology have become vital parts of working life. With hotel management, computers can be used to record, report and analyze the effectiveness of internal operations such as reservations, registration, guest history, guest accounting audit, and back-office accounting, thereby bringing a variety of benefits including ample amount of memory, advanced communication, advanced functioning among others. In view of these, this study design and develop an online-based hotel information system for University of Benin Guest House, Benin City, Edo State. The system is met to automate data entry methods; ensure efficient and reliable communication within the Guest House and enable fast and easy retrieval of guest records and data for fast reference activities. The Unified Modelling Language (UML) was used to model the system architecture and design, while the software was developed using PHP and MySQL. Also provided in this report is a description of the software design and implementation requirements.

Introduction

1.1 Background of Study

International and domestic tourism as well as business travel has increased greatly with globalization (Pizam, 2005). This has led to a tremendous increase in demand for hotels, restaurants and other related hospitality services.

Hostel business is a part of the hospitality industry. The hospitality industry has become a very important source of revenue in many developed and developing countries. In present times, there has been a great rush in hotels which provides lodging for holiday makers, business men and women and also athletes participating in different competitions (Barret and Baldry, 2003).

These days, humans are motivated by speed and convenience. Imagine you are traveling for business, pleasure or a conference; it will be very comforting to know you already have a good accommodation before your arrival. The demand for quality services and lodging has challenged management of hotels to search for ways to improve their standards in order to meet the expectations and demands of their esteemed customers (Sheehan, 2003).

Delivery quality services is therefore an important issue in the ever-competitive tourism industry and the hotel sector in particular. To survive in the global market, focusing on the customer is a key factor.

Hotel management system helps to maximize the return on investments by automating the manual or traditional methods of making reservations for rooms, conference and banquet halls etc. where the customer or client would have normally gone to the hotel to make such reservations. Any establishment that manually carries out an operation or process that

can be automated may not be very efficient and effective. This method is usually time consuming and stressful for both the client and front-desk receptionist. This has necessitated a research in this direction to design and implement an online-based Hotel Information System using the University of Benin Guest House as a case study.

1.2 Statement of The Problem

The University of Benin Guest House consists of various departments and units such as accommodation, food and beverages, events and meetings, gaming, entertainment and recreation, tourism services and visitor information located in different places. The Guest House also has its setup, regulations, staff and customers data. There are no doubt that the accommodation department play a vital role among other departments in the life of all customers as the department is supposed to be assured of a good room space before considering food, gaming, etc.

At University of Benin Guest House, reservation is done in several ways. The most popular is manually either by making a phone call or walking right in. Customers are then expected to fill out a registration card and make the choice of accommodation type they desire from what is available. The main problem with these method stems from the fact that most of the Guest House customers reside outside the state. Distance now becomes a barrier, also poor communication as network may present the phone line as busy to others.

In this study, Internet Technology is used to eliminate the barrier presented by distance with the resultant effect of speed and accuracy being enhanced. This project is to bring simplicity, easy and convenience to making of hotel reservation from any location. The customers have a

better picture of what they are getting on the internet, the rooms available, amount attached to each room, and other facilities available are displayed for them on net.

1.3 Aims and Objectives of The Study

The main goal of this study is to design and develop an online-based Hotel Reservation System. The system will seek to provide the following facilities:

- i. **Online room booking** – A 24/7 front desk that enables visitors to book online, accepts bookings and collects online payments. A simple step-by-step online reservation process provides users with a positive experience that impacts website conversion rates and **bookings**.
- ii. **Room management** - Use the administration panel of the hotel reservation system to add an unlimited number of room types, manage images, edit room description, set prices and room availability.
- iii. **Online payments** – Provide facilities for automating the booking process and facilitates deposit payments and reservation confirmation.
- iv. **Fast information retrieval:** Provide search facilities for retrieving customers information request.
- v. **Report generation:** Generation of report such as customers listing, payments report, payments volume analysis.

1.4 Scope of the Study

In this study, the following will be covered:

- A detailed description of the concept of hotel reservation system will be provided.
- Also, various existing hotel reservation system will be reviewed.

- Problems faced by the University of Benin Guest House, Benin City, with respect to hotel services will be discussed with a view of designing an alternative system (online-based Hotel Reservation System) for the company.
- An online-based Hotel Information System will be designed and developed for the University of Benin Guest House, Benin, using online programming technologies such as PHP and MySQL.
- Finally, a description of the system using system chart and the Unified Modelling Language (UML), will be provided as well as a description of its implementation requirements.

1.5 Significance of The Study

The study intends to equip the researcher with the knowledge and the skills of software design and development. This will enhance the researcher's competency and therefore the researcher's career development in software engineering.

Furthermore, the online system, when implemented by the management of University of Benin Guest House, it will help to improve on the overall efficiency and effectiveness of the company due to the enormous benefits it tends to provide. It will reduce the complexity of staff jobs or tasks, thereby creating more time for staff to make more meaningful decisions that will enhance their job performance.

1.6 Research Methodology

In this study, both primary and secondary source of information gathering will be used. With respect to the primary source of information gathering, personal interview will be conducted with the Manager of University of Benin Guest House, Benin City. With respect to the secondary source of information gathering, facts related to the study

under review will be sourced from textbooks, journals, articles, an internet sources.

Furthermore, with respect to the software design methodology, the study adopts the structured systems analysis and design method (SSADM). The SSADM is a systems approach to the analysis and design of information systems. It is a waterfall method for the analysis and design of information systems. SSADM can be thought to represent a pinnacle of the rigorous document-led approach to system design.

1.7 Limitations of The Study

Considering the fact that implementing a website requires hosting/publishing. However, for the purpose of this study; due to cost and time constrains and to ensure that the project is completion is feasible, the website to be designed and developed will not be hosted. However, in order to ensure that the site is working effectively and efficiently, it will be tested on the personal web server of the implementation system.

Also, availability of resources and unstable power supply resulted in a delay in the completion of the project.

1.8 Definition of Terms

For proper understanding of this project work, terms associated with the work are defined below:

- ❖ **Hotel:** A hotel is an establishment set up to provide food, drinks and if so required, accommodation to any individual who is willing and able to pay the stipulated sum for the services rendered and facilities provided and who is in a fit state to be received (Hotel proprietors Act, 1956).

- ❖ **Management:** Management is a set of activities including planning, decision making, organizing and controlling directed at an organisation's human, financial, physical and information resources with the aim of achieving organizational goals in an efficient and effective manner (Griffin, 2006).
- ❖ **Reservation:** An arrangement to have something (such as a room, table, or seat) held for your use at a later time.
- ❖ **Computer:** A computer is a general-purpose device that can be programmed to carry out a set of arithmetic or logical operations automatically.
- ❖ **Information Technology:** Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise.
- ❖ **Online:** The term "online" have specific meanings in regard to computer technology and telecommunications in which it indicates a state of connectivity or internet connection.

1.9 Layout of Work

This project has five chapters followed by the appendices.

Chapter One provides us an introduction to the study, specifying the research problem, objectives, scope, significance, methodology and limitations.

Chapter Two reviews related literature.

Chapter Three analyses the existing system of hotel reservation by the

University of Benin Guest House, with a view of proposing an alternative system.

Chapter Four specifies the design requirements of the proposed system as well as a description of its implementation requirements.

Chapter Five contains the summary, conclusion and recommendations.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 Analysis of the Current System

System analysis is the process of analyzing a system with a view of bringing out the problems in the existing system and consequently proffering an alternative method usually a computerized system to curb the problems in the system.

In this study, an investigation of the existing system of hotel reservation by the University of Benin Guest House, Benin City, Edo State is being carried out. This was done through the use of questionnaire that was administered by randomly selected staff of the guest house. Sample of the questionnaire is attached to Appendix A of this report.

From the analysis carried out, the following were identified:

- University of Benin Guest House, Benin City, provides lodging paid on a short-term basis. Facilities provided by the Guest House ranges from a basic bed and storage for clothing, to luxury features like en-suite bathrooms. Additional guest facilities provided by the Guest House include a swimming pool, business center, childcare, conference facilities and social function services. The rooms in the Guest House are numbered to allow guests to identify their room. The Guest House also offers meals as part of a room and board arrangement.
- The Guest House consist of a General Manager who serves as the

head executive (often referred to as the "Hotel Manager"), department heads who oversee various departments within the Guest House, middle managers, administrative staff, and line-level supervisors.

- One of the departments in the Guest House, which is quite important to this study, is the Reservations Department. The Reservation Department of the University of Benin Guest House is the first point of contact between prospective clients and the Guest House.

The telephone skills and sales ability of the Reservations Department personnel plays a vital role in forming positive perceptions of the Guest House amongst potential clients as well as reinforcing the Guest House's high standards and existing clients.

The primary function of the Reservations Department is to accept and process all reservations and requests, control room and rate availability, operate and update the guest history and maximize room sales through effective use of rate controls, upselling and yield management.

The Reservations Department is also a sales department in its own right, selling hotel rooms and services.

The Reservations Department promptly handle all telephone reservation requests and enquires and to efficiently and accurately process all reservations, in accordance with the established standards and procedures, ensuring customer satisfaction and maximum revenues for the Hotel. In addition, the Reservations Department maintains a good working relationship with other departments within the Guest House and provides same with occupancy forecasts, reports and statistical data.

Specifically, the University of Benin Guest House offers accommodation, meals, additional facilities and other services. Accommodation services are offered as follows:

CATEGORY	BED AND BREAKFAST (=N=)	HALFBOARD (=N=)	FULLBOARD (=N=)
Single Room	2500	3900	5100
Double Room	2900	4300	5500
Single Room Self Contained	3100	4500	5700
Double Room Self Contained	3700	5100	6300

Meals, other services and facilities offered includes: Breakfast; Lunch, dinner, tea, Laundry, Ironing, transport and room service. The services are offered as outlined below:

ITEM	COST (=N=)
Breakfast	1000
Lunch	700
Dinner	1500
Tea	250
Laundry Heavy Linen	300
Medium	200
Light	100

Although the Guest House is of an international class and quality, it is not realizing its maximum potential due to delay of activities by the current redundant manual system. Due to huge losses suffered by the hotel from the frequent errors in the current system, the Guest House management opted for a computerized system, which would:

1. Be friendlier to customers and the staff.
2. Improve customer care and service at the Guest House.
3. Increase the Guest House performance.
4. Reduce the operational costs of the Guest House.

Furthermore, the current manual system uses paperwork and direct human language communication by mouth to manage the Guest House. This delays information transmission in the Guest House. Booking is done through phone calls or through visit to the Guest House booking office. The guest's personal details such as Name, Age, Nationality, and Duration of stay, are input during booking in. The booking office orders for preparation of the guest's room before his/ her check in date.

The documents are transferred manually to the Filling Department for compilation of the guest's file. On the reporting date the file is transferred to the reception. On checking in, the guest is given the key to his allocated room, he also specifies if he needs room service.

The receptionist hands over the guest's file to the accountant on the next table. Here the guest pays accommodation and meals fee. The guest's file is updated on daily basis of his expenditure costs. The Accounts Department generates the bills on daily basis and delivered to the guests in their rooms at dusk by the service maids. The guest pays at the accounts desk, where the receipts are generated. For a one meal customer the bill is generated immediately after ordering and he pays at the accountant desk before leaving. During checking out of guests, their expenditure outlines are generated a day before check outdate. The guests receive their outlines at the accounts desk as they check out, where they pay for bills balances if any.

3.2 Weaknesses of The Present System

Presently, at the University of Benin Guest House, reservation processes/

activities are done using manual processes.

As a result of the manual process used in carrying out the aforementioned activities of hotel reservations in the University of Benin Guest House, the following problems are being encountered:

- i.) **Difficulty in location of guest files:** Due to the large number of guests' files, location of guest files during checking in, updating of daily expenditures, receipt generation and checking out is extremely difficult for the Guest House employees.
- ii.) **Large storage space:** The physical files occupy too much space of about two rooms full of storage cabinets. This occupies the Guest House's space that could have otherwise been used for income generation by the Guest House.
- iii.) **Human and computational errors:** Many errors enabled by the system due to tedious computations required during data processing cost the Guest House management heavily.
- iv.) **Poorly generated records:** Poorly generated records encourage omission of some important data by the employees. Such data as the guests' luggage is omitted. This leads to security problems at the Guest House such as armed robberies.
- v.) **Complains from guests:** Due to poor management of documents encouraged by the manual system, several cases were reported where guests complained of overcharging, charging of services not used by the guests.
- vi.) **Poor communication:** Due to poor communication between the departments, guests are often served with services they did not order.
- vii.) **Difficulty in data analysis:** The accountants usually found it difficult to analyze the guests' data during generation of expenditure bills due to missing of some records.

- viii.) Guest files can easily get lost or mix up with other guest file documents.
- ix.) Files occupy a large storage space.
- x.) Unnecessary duplication of data.
- xi.) Files are prone to theft unauthorized modification due to low data security levels and standards.
- xii.) Due to easy access to guest data by unauthorized users, guest data is extremely unconfident.
- xiii.) Retrieval of guest records is extremely difficult.
- xiv.) Data entry procedure is prone to errors.
- xv.) Guest records are extremely difficult to modify since modification generates dirty and unpresentable reports.

3.3 Investigative Method

Data about the existing system was gathered through the use of interview and the investigation of procedural manuals.

Interview was conducted with the Head of Reservation & Bookings Department – Mrs – A. Okaka. Information on the University of Benin Guest House and problems faced with the current system was related to me in the course of the interview. Also, documents or information prepared in relation to rooms bookings and reservations, etc, were related to me.

Facts about that system were compiled. Such facts include exact inputs to the system such as customers' personal information such as surname, first name, occupation, reservation request information, operations/processes and outputs from the system such as customers listing, payments report and payments volume analysis.

The data gathered from the system were analysed in order to have more insight to the problems of the existing system of hotel reservation

management of the University of Benin Guest House, Benin City, Edo State, Nigeria.

3.4 Analysis of the Proposed System

In view of the problems identified in the existing system of hotel management being carried out by the University of Benin Guest House, Benin City, Edo State, the need to adopt an alternative and a more effective Hotel Reservation system cannot be undermined. The alternative system suggested by us is an online-based Hotel Reservation System that will enable online booking via the Internet; enable automated data entry methods; ensure efficient and reliable communication within the Guest House; avoid data entry errors by use of input masks; enable easy authorized modification of data; enforce security measures to avoid unauthorized access to guest records and enable fast and easy retrieval of guest records and data for fast reference activities. When this system is fully implemented and put into use by the Guest House, this will go a long way to curb the problems being faced with the current manual system of hotel management by the University of Benin Guest House, Benin City.

3.5 Benefits of the Proposed System

The proposed Online-based Hotel Reservation System is a computerized system. The system when used according to specification, the following will be achieved:

- i. **Online room booking** – A 24/7 front desk that enables visitors to book online, accepts bookings and collects online payments. A simple step-by-step online reservation process provides users with a positive experience that impacts website conversion rates and **bookings**.
- ii. **Room management** - Use the administration panel of the hotel

reservation system to add an unlimited number of room types, manage images, edit room description, set prices and room availability.

- iii. **Online payments** – Provide facilities for automating the booking process and facilitates deposit payments and reservation confirmation.
- iv. **Fast information retrieval:** Provide search facilities for retrieving customers information request.
- v. **Report generation:** Generation of report such as customers listing, payments report, payments volume analysis.

3.6 Input Screen

The system is an interactive one and the input is to be accepted to the system via the screen and keyboard. In the Hotel Reservation System, there are several screens designed for input data. There are screens designed for populating the system with the available rooms and cost of rooms, updating rooms and cost of rooms, deleting rooms and cost of rooms.

The input data to the system are given below:

- Customer's Surname
- Customer's First name
- Sex
- Age
- Address
- Occupation
- Nationality
- Booking request
- Number of days booking
- Room type

- Room number
- Cost of room
- Room booked for
- Cost of booked room
- Amount paid for room
- Customer payment status
- Total amount paid
- Checking in date
- Checking out date

Furthermore, the screen shot of the input screen design is shown below.

Customer Booking Input Screen Design

3.7 Output Screen

The reports to be generated by the online-based Hotel Reservation System and their corresponding sample outputs are shown below:

- i.) **AVAILABLE ROOMS REPORT:** This report shows the available rooms in the Guest House

Available Rooms

SINGLE ROOM - BREAD AND BREAKFAST
DOUBLE ROOM - BREAD AND BREAKFAST
DOUBLE ROOM - HALF BOARD
DOUBLE ROOM - FULL BOARD
SINGLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
SINGLE ROOM SELF CONTAINED - HALF BOARD
SINGLE ROOM SELF CONTAINED - FULL BOARD
DOUBLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
DOUBLE ROOM SELF CONTAINED - HALF BOARD
DOUBLE ROOM SELF CONTAINED - FULL BOARD

- ii.) **CUSTOMER BOOKING CONFIRMATION:** This is a slip confirming that a customer booking request has been successfully processed.

Print	Close
CONFIRMATION	
Surname:	OKORO
First Name:	JAMES
Sex:	MALE
Age:	30
Address:	45, LOPOLA STREET, BENIN CITY
Occupation:	TEACHER
Nationality:	NIGERIAN
Number of Days Booking:	2
Check In Date:	22/08/2015
Room Type:	DOUBLE ROOM - BREAD AND BREAKFAST
Room Number:	104
Cost of Room -N=	2800

- iii.) **CUSTOMER PAYMENT AND CHECKOUT INFORMATION:** This shows the personal information of a customers with respect to the room allocated to him/her, cost of room, the check in date, check out date, number of days used, amount paid and payment status.

CUSTOMER CHECKOUT AND PAYMENT

Search Customer's Records

Select Surname: OKORO

Select FirstName: JAMES

Search

Close

☒ Confirmed Payment

Edit

Update

Surname: OKORO

First Name: JAMES

Sex: MALE

Age: 38

Address: 45, LOPOLA STREET, BENIN CITY

Occupation: TEACHER

Nationality: NIGERIAN

Check In Date: 03/08/2015

Check Out Date: 17/08/2015

No of Days Spent: 14

Room Type: DOUBLE ROOM - BREAD

Room Number: 104

Cost of Room: ₦= 2900

Total Bill: ₦= 40500

CUSTOMER CHECKOUT AND PAYMENT

Search Customer's Records

Select Surname: Select FirstName:

☒ Confirmed Payment

Surname: OKORO
 First Name: JAMES
 Sex: MALE
 Age: 30
 Address: 45, LOPOLA
 Occupation: TEACHER
 Nationality: NIGERIAN
 Check In Date: 03/07/2015
 Check Out Date: 17/08/2015
 No of Days Spent: 14
 Room Type: DOUBLE ROOM - BREAD
 Room Number: 104
 Cost of Room: -N= 2900
 Total Bill: -N= 40500

Confirmation

Checkout and Payment Confirmation Successful...

- iv.) **CUSTOMER LISTING:** This is a report showing all lists of customers to the Guest House, specifying their allocated room status, check in date, check out date and the amount billed the customer for the specified period of time.

CUSTOMER LISTING

ENTER START DATE: ENTER END DATE:

SURNAME	FIRSTNAME	AGE	SEX	ADDRESS	OCCUPATION	NATIONALITY	BOOKING ID	ROOM TYPE	ROOM NO	ROOM COST	DATE CHE	DATE CHE	AMOUNT
EDEGBE	JOHN	34	MALE	5 AIRPORT	BUSINESS	NIGERIAN	3	SINGLE RD	103	5100	22/08/2015	25/03/2015	15300
YUSUF	ADDY	45	MALE	45 AIRPORT	BUSINESS	NIGERIAN	3	SINGLE RD	102	3800	18/08/2015	22/08/2015	11700
OKORO	JAMES	30	MALE	45, LOPOLA	TEACHER	NIGERIAN	14	DOUBLE RD	104	2900	03/07/2015	17/03/2015	40600
UGLOLWA	GLORIA	32	FEMALE	55, DKEFE	LEGAL PRA	NIGERIAN	2	DOUBLE RD	105	4300	18/08/2015	20/03/2015	9800

Total Number of Customers: 4

Total Amount from Bookings for Specified Period: -N= 76200

3.8 Program Structure

The online-based Hotel Reservation System program structure is given below:

Figure 3.1: Program Structure for Online-based Hotel Reservation System

3.9 Architectural Diagram

The diagram below shows a 3-tier architecture for the online-based Hotel Reservation System.

Figure 3.2: 3-Tier Architecture for Online-based Hotel Reservation System

Presentation-Tier

The presentation-tier for the Hotel Reservation System is PHP Web Forms with User Controls. The PHP engine will be used to create PHP Web Forms and therefore uses code behind code, where the code for each PHP page is encapsulated into a separate file.

Middle-Tier

The class diagram below captures middle-tier, business specific layer, of the Hotel Reservation System. Business specific layer of the Hotel Reservation System consist of nine classes: User, Customer, Travel Agent, Administrator, Mail, Hotel Chain, Hotel, Room and Reservation.

Figure 3.3: Middle-Tier Class Diagram for Online-based Hotel Reservation System

3.10 Data flow Diagram (DFD)

The Data Flow Diagram for the Online-based Hotel Reservation System is given below.

Figure 3.4: DFD for the Online-based Hotel Reservation System

3.11 Tables or Entities

The system has only one master database file. The master database is made up of four tables – ADMINISTRATOR, ROOMS, CUSTOMER and RESERVATION. The record layout for each table is given below:

Table 3.1: ADMINISTRATOR TABLE

S/ N	FIELD NAME	TYPE	SIZE
1.	Username	Text	10
2.	Password	Text	10

Table 3.2: ROOM TABLE

S/ N	FIELD NAME	TYPE	SIZE
1.	Room type	Text	20
2.	Room number	Text	8
3.	Cost of room	Currency	15
4.	Room Status	Text	8

Table 3.3: CUSTOMER TABLE

S/ N	FIELD NAME	TYPE	SIZE
---------	------------	------	------

1.	Customer Reference No	Text	8
2.	Customer's Surname	Text	15
3.	Customer's First name	Text	15
4.	Sex	Text	6
5.	Age	Integer	3
6.	Address	Text	254
7	Occupation	Text	20
8	Nationality	Text	20
9.	Booking request	Text	30
10.	Number of days booking	Integer	2
11.	Room type	Text	10
12.	Room booked for	Integer	8
13.	Cost of booked room	Currency	15
14.	Amount paid for room	Currency	15
15.	Customer payment status	Text	10
16.	Total amount paid	Currency	15
17.	Checking in date	Date	10
18.	Checking out date	Date	10

Table 3.4: RESERVATION TABLE

S/ N	FIELD NAME	TYPE	SIZE
1.	Reservation Number	Text	8
2.	Check in Date	Text	10
3.	Check Out Date	Currency	10
4.	Number of Days	Text	3
5.	Room Cost	Currency	15
6.	Total Amount	Currency	15

3.12 Entity Relationship Diagram (ERD)

Entity Relationship (ER) modeling is a data modeling technique used in software engineering to produce a conceptual data model of an information system. Diagrams created using ER-modeling technique are called Entity-Relationship Diagrams or ER diagrams or ERDs. It can be said that Entity Relationship Diagrams illustrate the logical structure of databases.

There are three basic elements in ER-Diagrams.

1. Entities are the 'things' for which we want to store information.
An entity is a person, place, things or event.
2. Attributes are the data we want to collect for an entity.
3. Relationships describe the relations between the entities.

Figure 3.5 below shows the entity relationship diagram for the online Hotel Reservation System.

Figure 3.5: Entity Relationship for Online Hotel Reservation System

3.13 UML (Universal Modelling Language)

The Unified Modelling Language (UML) is a general-purpose modelling language in the field of software engineering, which is designed to provide a standard way to visualize the design of a system. For this study, the online-based hotel reservation system is modelled using use case and sequence diagram.

3.13.1 Use Case Diagram for Online Hotel Reservation System

Figure 3.6: Use Case Diagram for Online-based Hotel Reservation System

3.13.2 Sequence Diagram for the Online Hotel Reservation System

The following sequence diagrams show some of the core functions of the Hotel Reservation System, which will be discussed in detail in the next section.

Figure 3.7: Sequence Diagram for Online-based Hotel Reservation System

3.14 Test Plan

When the website is run by the users, there is bound to be some errors mainly due to improper inputs. The table below shows cases and their resultant effect.

Table 3.5: Test Plan

TEST	ACTION	RESULT
Administrator Login	a. Wrong password is entered in the data field password is case sensitive. b. Right username and password entered.	a. The system denies access and generates a wrong password error message. b. The system authenticates and grants access.
Customer Booking	a. Wrong information/data inputted into text field. b. Correct data inputted into text field. c. Check out date earlier than check in date. d. Check in date later	a. The program set to count errors and echo (return) then to the user for correction. b. Continues to next stage. System confirms reservation. c. Check out date must be greater than check in date.

	than check out date.	d. Check in date must be less than check out date.
Search for Customer's Record	a. Enter incorrect customer reference number b. Enter correct customer reference number.	a. Display message "Record not found". b. Display customer's record that matches reference number inputted.
Modify Room Availability Status	a. Change room status to available/not available.	a. Status change as specified.

3.15 Statistical Analysis

In order to gather facts for this study, questionnaire was designed and copies of the questionnaire were distributed to some randomly selected staff of UNIBEN Guest House, Benin City. The questionnaire was made up of three sections. Section A contains biodata of the respondents; section B contain questions to elicit from the respondents the type of system used in the management of their hotel reservation activities or processes. Section C contain questions to elicit from the respondents the problems experienced or faced with their current method of hotel reservation management; section D contains questions to elicit from the respondents their perception of adopting an alternative computerized or online based system. Twenty copies of the questionnaire were distributed to staff of the UNIBEN Guest House and all copies were duly collected representing 100%

response rate. Data collected was analyzed statistically and calculations done to indicate which of the variables received greater responses of the subject participants. Also, the research hypotheses were tested using Chi-Square statistics. The next sub section provides an overview of the data presentation, analysis and test of research hypotheses.

3.15.1 Data Presentation and Analysis

Analysis of Table of Statistics

Table 3.6: DISTRIBUTION BY SEX		
	Frequency	Percentage
MALE	13	65
FEMALE	7	35
Total	20	100.0

(Source: Field Work, 2015)

Table 3.6 information shows that 13 (65%) of the respondents are males and 7 (35%) are females, indicating that majority of the respondents were males.

Table 3.7: DISTRIBUTION BY JOB STATUS		
	Frequency	Percentage
Junior Staff	6	30
Senior Staff	11	55
Management Staff	3	15
Total	20	100.0

(Source: Field Work, 2015)

Table 3.7 information shows that 6 (30%) of the respondents were junior staff, 11 (55%) were senior staff and 3 (15%) were management staff, indicating that majority of the respondents were senior staff.

3.15.2 Data Analysis and Interpretation

Table 3.8: Which method do you used in the management of your Hotel Reservation Activities such as keeping records of customers, booking customers, keeping records of customers' payments, etc?		
	Frequency	Percentage
Manual Method.	14	70
Use of Computer packages such as Microsoft Excel.	6	30
Automated System	-	0
Total	20	100.0

(Source: Field Work, 2015)

Table 3.8 shows that 14 (70%) of the respondents make use of manual method in carrying out their tasks as regard hotel reservation processes at the UNIBEN Guest House, while 6 (30%) of the respondents do make use of computer package such a Microsoft excel. This implies that the staff of UNIBEN Guest House generally makes use of manual method in carrying out their job functions as regard hotel reservations.

Table 3.9: How do you prepare your report for management use?
--

Table 3.9: How do you prepare your report for management use?		
	Frequenc y	Percentage
Manually using paper files	9	45
Use of Computer package such as Microsoft Excel.	11	55
Generated from an automated system	-	0
Total	20	100.0

(Source: Field Work, 2015)

Table 3.9 shows that 9 (45%) of the respondents makes use of paper files in preparing their reports for management, while 11 (55%) of the respondents makes use of Microsoft excel package in preparing their reports for management use. None of the respondents do make use of an automated system. This indicates that majority of the staff of UNIBEN Guest House make use of Microsoft excel in preparing and their reports for management use.

Table 3.10: Do you face difficulties with the method used in carrying you're your job functions?		
	Frequenc y	Percentage
Yes	17	85
No	3	15
Total	20	100.0

(Source: Field Work, 2015)

Table 3.10 shows that 17 (85%) of the respondents do face difficulties with

the method used by them in carrying out their job functions, while 3 (15%) of the respondents do not. This implies that the generality of the staff of UNIBEN Guest House do face difficulties with the methods used by them in carrying out their job functions as regard hotel reservations.

Table 3.11: Are your customers not satisfied with your service delivery?		
	Frequency	Percentage
Yes	14	70
No	6	30
Total	20	100.0

(Source: Field Work, 2015)

Table 3.11 shows that 14 (70%) of the respondents agreed that customers are not satisfied with their service delivery, while 6 (30%) of the respondents agreed that customers are satisfied with their service delivery. This implies that generally, customers are not satisfied with their service delivery and this can be linked up with the method used by the guest house in carrying out its hotel reservation activities that is characterized with some challenges.

Table 3.12: Would you prefer an alternative and computerized system?		
	Frequency	Percentage
Yes	20	100
No	0	0
Total	20	100.0

(Source: Field Work, 2015)

Table 3.12 shows that 20 (100%) of the respondents all agreed that an alternative and computerized system should be put in place to correct the problems faced with their current method of carrying out their hotel reservation activities.

3.1.5.3 Testing Hypothesis

There are two hypotheses underlying the study. These hypotheses were analyzed and interpreted based on the results of the questionnaires using chi square statistics.

Decision Rule

If under this analysis the computed value of the chi-square (X^2) is greater than the critical value of the test statistics (that is, value read from table) at a given degree of freedom, we could conclude that the observed frequency differ significantly from the expected frequency and we would reject the null hypothesis (H_0) at the corresponding level of significance, otherwise we accept it.

That is:

$X^2_C > X^2_T$ - reject H_0 and accept H_i

$X^2_C < X^2_T$ – accept H_0 and reject H_i

Test of Hypothesis One

H_0 : There is no problem with the present system of hotel reservation management being carried out by UNIBEN Guest House, Benin City.

H₁: There is a problem with the present system of hotel reservation management being carried out by UNIBEN Guest House, Benin City.

Hypothesis one was analyzed and interpreted by collating the average responses from the questions relevant to ascertaining whether the staff and management of UNIBEN Guest House, Benin are faced with challenges or problems using the present manual system of hotel reservation management being carried out by the UNIBEN Guest House, Benin. The average response of respondents to questions 3 and 4 of the research questionnaire was used. Thus, the average responses are presented in a table of observed frequencies and chi-square statistics was used for the analysis. A table of expected frequencies was then derived from the table of observed frequencies using the formula:

$$X^2 = \frac{\sum(O-E)^2}{E}$$

Where X^2 = value of Chi-square

Σ = summation

O = Observed frequency of any value

E = Expected frequency of any value

The average response to questions 3 and 4 in section B of the research questionnaire is given below:

Table 3.13: Problem with the present system of hotel reservation management being carried out by UNIBEN Guest House, Benin City.

Table 3.13: Problem with the present system of hotel reservation management being carried out by UNIBEN Guest House, Benin City.

	Frequency	Percentage
Yes	16	80
No	4	20
Total	20	100.0

(Source: Field Work, 2015 – Average Responses of Respondents to Questions 3 and 4 in Section B of the Research Questionnaires)

Computation of Chi-square

Since the total frequency is 20, then

Expected frequency = Total frequency/Number of variables;

Which implies that Expected frequency = $20/2 = 10$

Thus, we have the following Chi-square table 3.14 below:

Table 3.14

Category	Observed Frequency (O)	Expected Frequency (E)	(O-E)	(O-E) ²	(O-E) ² /E
Yes	16	10	6	36	3.6
No	4	10	-6	36	3.6
Total			0		7.2

Expected frequency for analysis in table 3.14 is 10, since theoretically, one expected equal response from respondents.

Therefore, degree of freedom (df) = $n-1$; $2-1 = 1$.

At a level of 0.05, we obtain a tabulated value of X^2 as 3.841.

From the above analysis, we have as follows:

Chi-square computed value (X^2C) = 7.2.

Chi-square tabulated value (X^2T) at 5% level of significance = 3.841.

Thus, from the above analysis, it shows that the computed value is 7.2, which is greater than the tabulated value of 3.841. Thus, the alternative hypothesis is accepted and this implies that there is a problem with the present system of hotel reservation management being carried out by UNIBEN Guest House, Benin City.

Test of Hypothesis Two

H₀: There is no need for a computerized-based hotel reservation system.

H₁: There is a need for a computerized-based hotel reservation system.

Hypothesis two was analyzed and interpreted by collating the responses from the questions relevant to ascertaining whether the need for an alternative and computerised system is justified. Thus, question 5 of section B of the research questionnaire was used to proxy for the justification of the need of an alternative and a computerized-based hotel reservation system. Thus, the responses are presented in a table of observed frequencies and chi-square statistics was used for the analysis. A table of expected frequencies was then derived from the table of observed frequencies using the formula:

$$\chi^2 = \frac{\sum(O-E)^2}{E}$$

Where χ^2 = value of Chi-square

Σ = summation

O = Observed frequency of any value

E = Expected frequency of any value

The responses to question 8 in section B of the research questionnaire is given below:

Table 3.15: Would you prefer a computerized-based hotel reservation management system?		
	Frequency	Percentage
Yes	20	100
No	0	0
Total	20	100.0

(Source: Field Work, 2015 – Responses of Respondents to Question 5 in Section B of the Research Questionnaires)

Computation of Chi-square

Since the total frequency is 20, then

Expected frequency = Total frequency/Number of variables;

Which implies that Expected frequency = $20/2 = 10$

Thus, we have the following Chi-square table 3.16 below:

Table 3.16

Category	Observed Frequency (O)	Expected Frequency (E)	(O-E)	(O-E) ²	(O-E) ² /E
Yes	20	10	10	100	10
No	0	10	-10	100	10
Total			0		20

Expected frequency for analysis in table 3.16 is 10, since theoretically, one expected equal response from respondents.

Therefore, degree of freedom (df) = $n-1$; $2-1 = 1$.

At a level of 0.05, we obtain a tabulated value of X^2 as 3.841.

From the above analysis, we have as follows:

Chi-square computed value (X^2C) = 20.

Chi-square tabulated value (X^2T) at 5% level of significance = 3.841.

Thus, from the above analysis, it shows that the computed value is 20, which is greater than the tabulated value of 3.841. Thus, the alternative hypothesis is accepted and this implies that there is need for a computerized-based hotel reservation management system.

Inference

From the above analysis carried out, it clearly shows that the UNIBEN Guest House makes use of manual method in carrying out its hotel reservation activities and this has resulted in some problems such as

difficulty in location of guest files, human and computational errors, poorly generated records and frequent complaints from customers or guests due to poor management of customers files or documents.

In view of these, the need to adopt an alternative and computerized based system cannot be undermined. This has necessitated the proposal for the designed and implementation of an online-based Hotel Reservation System for the UNIBEN Guest House. The system tends to correct the problems posed by the current system.

CHAPTER FOUR

SYSTEM IMPLEMENTATION AND DODUMENTATION

4.1 Introduction

This chapter describes the system implementation requirements, the choice of programming language of implementation and how to install and make use of the system designed and developed.

4.1.1 Software requirement

The following software applications are necessary for the computerised system:

- i.) Microsoft Windows 7 or higher version
- ii.) Internet explorer
- iii.) Internet Information Service (IIS)
- iv.) MySQL server
- v.) PHP engine

4.1.2 Hardware requirement

The computer-based filing system is intended for use on Microsoft PCs. There is a minimum specification which a computer system must meet in order for it to be able to run the computer-based filing system. The hardware requirements for installation of the system are stated below.

- i.) A multimedia computer system with:
 - a. A Hard disk size of at least 500 Giga Bytes
 - b. A RAM size of at least 4 Giga Bytes
 - c. Flash Drive
 - d. Uninterruptible Power Supply (UPS)
 - e. A Laser Jet Printer
 - f. Printing papers

4.2 Choice of programming language

The choice of programming language for the implementation of the proposed system is PHP (Perl Hyper Processor) and MySQL.

4.3 Justification of programming language used

Using PHP scripting and MySQL database will enable the researcher to create the online hotel reservation system that will run on just about any computer, regardless of operating system. Furthermore, PHP has thousands of programming functions to facilitate almost any task.

If the computer can run web server software, the PHP / MySQL application is portable across operating systems and environments - PC, Mac, Linux, Unix, Windows, Lindows, Internet, Intranet, etc.

In addition, considering the fact that the system be designed is a dynamic website, PHP / MySQL is quite suitable.

4.4 Installation Configuration of Web

The system designed is a web application and is expected to run using PHP Engine called Apache 2. To install and configure the Apache 2 for Windows Operating System, follow the steps below:

1. Firstly, download a copy of Apache 2.
2. Run the Apache Installer: When you have finished downloading the file, double-click it to run the Apache installer. Follow the instructions to install Apache.

When you arrive at the "Server Information" dialog box, enter "localhost" (without the quotes) for the Network Domain as well as for the Server Name and whatever email address you wish for the "Administrator's Email Address" field. The installer uses the information you enter to create a default Apache configuration file for you. You can always go back and manually change these values in your configuration file if you change your mind later. Leave the default setting of "for All Users, on Port 80, as a Service" as it is. Click "Next" when you're done.

When asked about the Setup Type, select "Typical" and click "Next".

Allow the installer to install to the default folder in the next screen. Note that this tutorial will assume that you are using the default folder of "c:\Program Files\Apache Group\" here. Click "Next".

Finally click the "Install" button to allow the installer to set up Apache. When it is done, click the "Finish" button.

3. Enabling and Disabling the Apache Service: The Apache installer automatically starts the Apache service when it finishes the installation. If you ever wish to stop the Apache 2 service and only start it manually when you need to use it for testing, go to Control Panel -> Administrative Tools -> Services, look for the "Apache2" service and double-click it. From here you can stop the service and change the startup type to "Manual". The Apache service will then terminate and only start when you return to this control panel applet to manually start it. This is useful if, like me, you're only using the server to test your scripts, and don't want the server running all the time.
4. Changing the Server Name and Administrator's Email Address: If you want to change the server name that you entered when you set up Apache, use the Start menu to open the Apache configuration file: you can find the appropriate item at Start -> Programs -> Apache HTTP Server -> Configure Apache Server -> Edit the Apache httpd.conf Configuration File. A Notepad window will open with your Apache configuration file loaded. If you ever need to load your configuration file with another ASCII editor, it

can be found at "C:\Program Files\Apache Group\Apache2\conf\httpd.conf" for Apache 2.0 and "C:/Program Files/Apache Software Foundation/Apache2.2" for Apache 2.2.

Search for the following text and replace the "localhost" with the name you want.

ServerName localhost:80

Likewise if you want to change the Administrator's Email Address that you entered earlier, look for a line like the following:

ServerAdmin admin@localdomain

The exact email address displayed will be different, depending on what you entered during the setup process earlier.

For the purpose of this study, since we are setting up Apache for private offline testing, you can basically leave these settings as they are.

5. Save the Configuration File and Restart Apache: When you are satisfied with your changes, save the file - just use the "Save" item from the "File" menu or type Ctrl+S. After you make a configuration change, you need to restart Apache. To do this, go to the Start Menu and click the "Restart" item in the "Control Apache" folder, that is, select Start -> Programs -> Apache HTTP Server -> Control Apache Server -> Restart

4.5 Documentation and Testing

The purpose of system documentation is to show the logical flow of information and the logical operation necessary to carry out the particular design alternative chosen.

Starting Up the System

The online based hotel reservation system designed is stored in the root folder of the PHP wamp server of the implementation system, first start up the wamp server by ensuring that it is put online as shown below.

Next, click on Localhost to launch the home page of the website. When done, the following home page will be displayed.

Home Page

The user is expected to click on the various menu options and when click, the corresponding web page for the menu is displayed. For example, clicking on the Gallery menu will display the corresponding web page shown below.

Gallery Web Page

Clicking on the Rooms & Rate menu displays the corresponding page.

Furthermore, the corresponding page for the Amenities menu is given below.

Next, the Customer booking menu, when clicked displays the corresponding page.

BOOKINGS	
Personal Details	
Surname:	<input type="text"/>
First Name:	<input type="text"/>
Sex:	☒ MALE ☐ FEMALE
Age:	<input type="text" value="18"/>
Address:	<input type="text"/>
Occupation:	<input type="text"/>
Nationality:	<input type="text" value="Nigerian"/>
Number of Days Booking:	<input type="text" value="1"/>
Check In Date:	<input type="text" value="22/08/2015"/>
Room Type:	<input type="text" value="Select"/>
Room Number:	
Cost of Room: =N=	
<div> <div>Available Rooms:</div> <div> SINGLE ROOM - BREAD AND BREAKFAST DOUBLE ROOM - BREAD AND BREAKFAST DOUBLE ROOM - HALF BOARD DOUBLE ROOM - FULL BOARD SINGLE ROOM SELF CONTAINED - BREAD AND BREAKFAST SINGLE ROOM SELF CONTAINED - HALF BOARD SINGLE ROOM SELF CONTAINED - FULL BOARD DOUBLE ROOM SELF CONTAINED - BREAD AND BREAKFAST DOUBLE ROOM SELF CONTAINED - HALF BOARD DOUBLE ROOM SELF CONTAINED - FULL BOARD </div> </div>	
<div> <div>Select</div> <div>Close</div> </div>	

Customer Booking Input Screen Design

The customer or user of the screen is expected to enter his or her information into the various input fields provided. After entry, the user is expected to click on the Submit button. If the information are properly entered, the system sends the information to the database, otherwise, the system displays an error message.

Below is a sample input data.

The screenshot shows a web application window titled "BOOKINGS". It contains two main sections: "Personal Details" and "Available Rooms".

Personal Details:

- Surname:
- First Name:
- Sex: ☒ MALE ☐ FEMALE
- Age:
- Address:
- Occupation:
- Nationality:
- Number of Days Booking:
- Check In Date:
- Room Type:
- Room Number: 105
- Cost of Room: =N= 4300

Available Rooms:

- SINGLE ROOM - BREAD AND BREAKFAST
- DOUBLE ROOM - HALF BOARD
- DOUBLE ROOM - FULL BOARD
- SINGLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
- SINGLE ROOM SELF CONTAINED - HALF BOARD
- SINGLE ROOM SELF CONTAINED - FULL BOARD
- DOUBLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
- DOUBLE ROOM SELF CONTAINED - HALF BOARD
- DOUBLE ROOM SELF CONTAINED - FULL BOARD

At the bottom right, there are two buttons: "Submit" and "Close".

If the information are properly entered and the submit button is clicked, the system displays a message confirming that the submission is successful. A sample screen shot is shown below.

BOOKINGS

Personal Details

Surname: UYISUE
First Name: PAUL
Sex: ☒ MALE ☐ FEMALE
Age: 30
Address: 56, AIRPORT ROAD, BENIN CITY, EDO STATE
Occupation: CIVIL SERVANT
Nationality: Nigerian
Number of Days Booking: 2
Check In Date: 22/08/2015
Room Type: DOUBLE ROOM - HALF BOARD
Room Number: 105
Cost of Room: =N= 4300

Available Rooms

SINGLE ROOM - BREAK AND BREAKFAST
DOUBLE ROOM - HALF BOARD
DOUBLE ROOM - FULL BOARD
SINGLE ROOM SELF CONTAINED - BREAK AND BREAKFAST
SINGLE ROOM SELF CONTAINED - HALF BOARD
SINGLE ROOM SELF CONTAINED - FULL BOARD
DOUBLE ROOM SELF CONTAINED - BREAK AND BREAKFAST
DOUBLE ROOM SELF CONTAINED - HALF BOARD
DOUBLE ROOM SELF CONTAINED - FULL BOARD

Confirmation

Information submitted successfully...

OK

Submit

Close

In addition to the confirmation message, the system further displays a printable confirmation page for the customer, which can serve as an acknowledgement slip for the customer. Below is a sample screen shot of the confirmation page.

Print Close

CONFIRMATION

Surname: UYISUE
First Name: PAUL
Sex: MALE
Age: 30
Address: 56, AIRPORT ROAD, BENIN CITY, EDO STATE
Occupation: CIVIL SERVANT
Nationality: NIGERIAN
Number of Days Booking: 2
Check In Date: 22/08/2015
Room Type: DOUBLE ROOM - HALF BOARD
Room Number: 105
Cost of Room: =N= 4300

If an existing room is selected, the user displays a message "Room not

available, Please select another room” This is shown below.

The screenshot shows a web application window titled "BOOKINGS". It contains a "Personal Details" form and a list of "Available Rooms". An "Alert" dialog box is overlaid on the form, displaying an information icon and the message "Room not available. Please select another room" with an "OK" button.

Personal Details

Surname:

First Name:

Sex: ☒ MALE ☐ FEMALE

Age:

Address:

Occupation:

Nationality:

Number of Days Booking:

Check In Date:

Room Type:

Room Number:

Cost of Room: =N=

Available Rooms

- SINGLE ROOM - BREAD AND BREAKFAST
- DOUBLE ROOM - HALF BOARD
- DOUBLE ROOM - FULL BOARD
- SINGLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
- SINGLE ROOM SELF CONTAINED - HALF BOARD
- SINGLE ROOM SELF CONTAINED - FULL BOARD
- DOUBLE ROOM SELF CONTAINED - BREAD AND BREAKFAST
- DOUBLE ROOM SELF CONTAINED - HALF BOARD
- DOUBLE ROOM SELF CONTAINED - FULL BOARD

Alert

Room not available. Please select another room

OK

For the Admin Login Page, when click, the login page will be displayed and the user is expected to enter a username and password. For the purpose of this study, the username and password is "ADMIN" and "ADMIN" respectively. The Admin login page is shown below.

The screenshot shows the Admin Login Page. It has two input fields: "USERNAME:" with the value "ADMIN" and "PASSWORD:" with the value "ADMIN". Below the fields are two buttons: "LOGIN" and "CLOSE".

USERNAME:

PASSWORD:

LOGIN CLOSE

If the username and password is correctly entered, after clicking the Login button, the system displays the sub menu for the Admin menu. This is shown below.

Next, clicking on the Confirm Customer Arrival, displays the corresponding screen.

CONFIRM CUSTOMER ARRIVAL

CONFIRM ARRIVAL

Search Customer's Records

Select Surname:

Select FirstName:

Search

Close

The user is expected to select a customer surname and first name and click the search button. If successful, the system displays the corresponding record of the specified customer, otherwise, the system, display a message "Record not found". Below is a sample data.

CONFIRM ARRIVAL

Search Customer's Records

Select Surname: UYIGUE

Select FirstName: PAUL

Search

Close

☐ Confirmed Arrival

Edit

Update

Surname: UYIGUE

First Name: PAUL

Sex: MALE

Age: 30

Address: 56, AIRPORT ROAD, BENIN CITY, EDO STATE

Occupation: CIVIL SERVANT

Nationality: NIGERIAN

Number of Days Booking: 2

Check In Date: 22/08/2015

Room Type: DOUBLE ROOM - HALF B

Room Number: 105

Cost of Room: ₦= 4000

The user is expected to click the Confirm Arrival option box to confirm the arrival of the customer and if there is any update on the customer's record, the user is expected to click on the Edit button to enable input fields for editing. After confirmation of arrival of customer, the user is expected to click on the Update button to update the record of the customer. Below is a sample screen shot showing a successful confirmation of customer's arrival process.

CONFIRM ARRIVAL

Search Customer's Records

Select Surname: UYIGUE

Select FirstName: PAUL

Search

Close

☒ Confirmed/Arrival

Edit

Update

Surname: UYIGUE

First Name: PAUL

Sex: MALE

Age: 30

Address: 56, AIRPORT ROAD, BENIN CITY, EDO STATE

Occupation: CIVIL SERVANT

Nationality: NIGERIAN

Number of Days Booking: 2

Check In Date: 22/08/2015

Room Type: DOUBLE ROOM - HALF B

Room Number: 105

Cost of Room: ₦4000

Confirmation

Booking Confirmation Successfull..

OK

Next, clicking on the Customer Checkout and Payment sub menu option, displays the corresponding screen.

CUSTOMER CHECKOUT AND PAYMENT

Search Customer's Records

Select Surname:

Select

Select FirstName:

Select

Search

Close

☐ Confirmed Payment

Edit

Update

Surname:

First Name:

Sex:

Age:

Address:

Occupation:

Also, the user is expected to select a customer surname and first name and click the search button. If successful, the system displays the corresponding record of the specified customer, otherwise, the system, display a message "Record not found". Below is a sample data.

CUSTOMER CHECKOUT AND PAYMENT

Search Customer's Records

Select Surname:UYIGUE

Select FirstName:PAUL

Search

Close

☐ Confirmed Payment

Edit

Update

Surname:UYIGUE

First Name:PAUL

Sex:MALE

Age:30

Address:56,ARPORT ROAD, BENIN CITY, EDO STATE

Occupation:CIVIL SERVANT

Nationality:NIGERIAN

Check In Date:22/08/2015

Check Out Date:23/08/2015

No of Days Spent:0

Room Type:DOUBLE ROOM - HALF BD

Room Number:105

Cost of Room: ₦N=4000

Total Bill: ₦N=0

The user is expected to click the Confirm Payment option box to confirm the payment by the customer and if there is any update on the customer's record, the user is expected to click on the Edit button to enable input fields for editing. After confirmation of payment by the customer, the user is expected to click on the Update button to update the record of the customer. Below is a sample screen shot showing a successful confirmation of customer's payment process.

CUSTOMER CHECKOUT AND PAYMENT

Search Customer's Records

Select Surname: UYIGUE

Select FirstName: PAUL

Search

Close

☒ Confirmed Payment

Edit

Update

Surname: UYIGUE

First Name: PAUL

Sex: MALE

Age: 30

Address: 56, AIRPORT ROAD, BENIN CITY, EDO STATE

Occupation: CIVIL SERVANT

Nationality: NIGERIAN

Check In Date: 22/08/2015

Check Out Date: 25/08/2015

No of Days Spent: 3

Room Type: DOUBLE ROOM - HALF B

Room Number: 105

Cost of Room: ₦400

Total Bill: ₦1200

Confirmation

Checkout and Payment Confirmation Successfull..

OK

Next, clicking on the Customer Listing sub menu option, displays the corresponding screen.

CUSTOMER LISTING

ENTER START DATE: 04/2012 ENTER END DATE: 03/04/2012 SEARCH

SURNAME	FIRSTNAME	AGE	SEX	ADDRESS	OCCUPATION	NATIONALITY	BOOKING_ID	ROOM_TYPE	ROOM_NO	SEM_COST	DATE_CHECKIN	DATE_CHECKOUT	AMOUNT
---------	-----------	-----	-----	---------	------------	-------------	------------	-----------	---------	----------	--------------	---------------	--------

Total Number of Customers: 0

Total Amount from Bookings for Specified Period: -N- 0

The user is expected to specify a start and end date (or a period) and click the search button. If successful, the system displays the corresponding records of customers whose arrival date falls within the date or period specified, otherwise, the system, display a message "Record not found". Below is a sample data.

CUSTOMER LISTING

ENTER START DATE: 03/04/2012 ENTER END DATE: 18/09/2015

	SURNAME	FIRSTNAME	AGE	SEX	ADDRESS	OCCUPATION	NATIONALITY	BOOKING	ROOM TYPE	ROOM NO	ROOM COST	DATE CHECK IN	DATE CHECK OUT	AMOUNT
	EDEGBE	JOHN	34	MALE	5 AIRPORT	BUSINESS	NIGERIAN	3	SINGLE RD	103	5100	22/08/2015	25/09/2015	15300
	YUSUF	ADDY	45	MALE	45 AIRPORT	BUSINESS	NIGERIAN	3	SINGLE RD	102	3900	19/08/2015	22/08/2015	11700
	OKORO	JAMES	30	MALE	45, LOPOLA	TEACHER	NIGERIAN	14	DOUBLE RD	104	2300	03/08/2015	17/09/2015	40600
	UGOLUWA	GLORIA	32	FEMALE	55, OKERE	LEGAL PRA	NIGERIAN	2	DOUBLE RD	105	4300	18/08/2015	20/09/2015	9800
	IMIGIE	PAUL	30	MALE	55, AIRPORT	CIVIL SERV	NIGERIAN	3	DOUBLE RD	105	4300	22/08/2015	25/09/2015	12900

Total Number of Customers: 5

Total Amount from Bookings for Specified Period: =N= 89100

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Study

The power of the computer and its applications are enormous. Online systems such as Hotel Reservation has attracted the most attention primarily because it stores and distributes information of a hotel, resort, or other lodging facilities; power reservations across all channels of distribution and maximize revenue opportunities for organizations or hotels like the University of Benin Guest House.

So far, this project has presented a framework for the development and implementation of an online Hotel Reservation System. A background review of the concept of hotel reservation systems and its related topics was presented.

As the saying goes, an organization effectiveness and efficiency is

determined with the level of information dissemination about the organization. In view of this fact, the proper dissemination of information of organization cannot be undermined. When customers or prospective customer of an organization known about the facilities or services offered by an organization, it make such customers to make decision on whether or not to patronize such organization.

All these aspects are what this research study had adequately taken care of especially with the design, development of an online Hotel Reservation System that will manage and store the University of Benin Guest House's inventory across all channels including, marketing channels and booking engines.

5.2 Conclusion

Computerization and the use of computers in human life activities has come to stay and it is hoped that, we have been able to provide a framework and as well design an online Hotel Reservation System that will help to ensure that the activities of the University of Benin Guest House with respect to hotel reservations are managed effectively. Once used according to specification with the authentication checks in place, the system will no doubt ensure that the room bookings or reservations carried out by the Guest House are set based on rules or guidelines of the Guest House as regard reservations.

5.3 Recommendations

As soon as the automated system becomes operational, the cost and benefits should be compared to know if it has met its objectives. The

online Hotel Reservation System should also need to be reviewed and maintained periodically in order to confirm that the planned objectives are being met and to take proper action if otherwise. Maintenance is mandatory to ensure that the system is able to adapt to any changing requirements of the company or individual using the software.

Also, considering the enormous potential of computer technologies, this project seeks to advice the University of Benin Guest House to take advantage of the online Hotel Reservation System. With the online system, the Guest House's future hotel reservations or bookings will be managed effectively and reports will be generated fast and with ease for management decision making.

Finally, we want to recommend that the Guest House in implementing the web-based system should adopt the parallel change over technique due to the fact that it will give the management an opportunity to compare results from the manual process and that of the online system.

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