A WEB-BASED SYSTEM FOR HOTEL RESERVATION IN KENYAN HOTELS

CASE STUDY: WHITESANDS HOTEL- MOMBASA

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DECLARATION

We **Odongo. S. Salome and Maiko S. Jared** do hereby declare to best of our knowledge that the contents of this project report of **"Web-Based System for Hotel Reservation of Whitesands Hotel"**, submitted to the School of Computer Studies, Kampala International University for the reward of bachelor's degree in Computer Science for the graduation project, is our original work and that it has never been submitted to any University or any other institution. The literature and citations from other people's work have been duly referenced and acknowledged in the text, footnotes and bibliography.

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APPROVAL

This project report entitled *"Web-Based Hotel Reservation System for Whitesands Hotel"* has been prepared and moderated through profound commitment and with the approval of the supervisor and has been submitted for examination for the partial fulfillment of Bachelor's degree in Computer Science

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DEDICATION

I **Odongo. S. Salome**, dedicate this work to my Dear lovely parents Mr. and Mrs. J.Odongo, my guardians Mr. and Mrs. V.Odongo.

I **Maiko Samusi Jared**, dedicate this work to my Dear Dad and Mum for their consistence support, advice and prayers during the hard times in course of my study.

Almighty God bless you abundantly.

ACKNOWLEDGEMENT

Glory be to GOD, who enabled us to complete this work and go through all my studies

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ABSTRACT

Due to congestion of customers in booking one to one at the Whitesands Hotels premises, the Web Based Hotel Reservation System for WhiteSands Hotels-Mombasa is developed to handle the Hotel booking procedure better than one to one booking, which is limited to most users from a far. The website is designed using PHP by connecting to the Hotel database using MySQL making it to be a dynamic site. Whitesands Hotel is found in Mombasa, along the Kenyan coast. This web based project provides a user interface form for online booking; it also provides information about the Hotel and the services it offers. This Hotel reservation is aimed at improving customer satisfaction, boosting sales and reduces costs by handling more transactions at a less time so that the processes being carried out by the administrators can keep pace with the economy in the World. To compete in the current business environment, management needs to cut down their distribution costs and adopt this system. However, Whitesands Hotel has been relatively slow in adapting this due to the current preference of using filebased room reservation system by the hoteliers. Based on the literature review of the Internet users, adopting online reservation, online "bookers" would look for fast, reliable and convenient system. Price, time and security are key motivators to book online. The findings are important in encouraging more hoteliers to adopt and implement online hotel reservations as part of their main sales mechanism.

ABBREVIATIONS

PHP   Hypertext Preprocessor

JSP   Java Server Pages

DBMS   Database Management Systems

RAM   Random access memory

MB   Megabytes

GB   Gigabytes

GUIs   Graphical User Interfaces

SDLC   System Development Life Cycle

CFMX   Cold Fusion Markup Language

ASP   Active Server Pages

EA   East Africa

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Chapter One : INTRODUCTION

1.1 Background of the case study

The on-line application system for hotels is an example of an e-commerce and database systems developed in form of a website to supplement marketing of the business and eventually replace the two sided forms of paper application and long time waiting for responses. The original goal for the web based reservation was simply to provide a more convenient way for prospective persons to make reservation in time and be assured to avoid inconveniences. Therefore a web based system refers to those applications or services that are resident on a server that is accessible using a web browser and is universally accessible

Hotel room reservation software has all the dynamic and versatile features required to run a hotel. This software offers an operational integration between reservations, guest history, reception, sales ledger, accounting and reporting modules. This software has facility to generate report for analyzing bookings, check in and checkout status. Hotel room reservation system is the best suit for managing resources in very simple and effective manner with minimal efforts or time. This increases revenue and use the gathered data in reports to help analyze the marketing and financial results. The travel sector that involves Hotel reservation is rated among the top three service purchased via the Internet (Eric et.al, 2006) [8]. According to research carried out by Jupiter Research, the number of people who have booked over the Internet is likely to double from 18.6 million in 2001 to 38.6 million by 2008. In response to this e-business opportunity, most hotels have established their own websites to facilitate promotion and reservations on the web. Starkov and Price (2007) [14] predicted that at least one-third of all hotel bookings will be completed online in 2010 as online reservations is increasing.

Situated north of Mombasa amidst one of East Africa's best beaches, Whitesands Hotel enjoys a tropical climate with high humidity levels with hot days (average 28°C) and warm nights (average 22°C) and boasts of palatial public areas and Arabic architecture which make it one of the best hotels around E.A coast.

The whole 'Whitesands Hotel Concept' began in 1930 where Mr. H.G Robertson bought a new house with two bedrooms flanked by a long lounge. Robertson was working as an Editor of Mombasa Times, which grew into present day "Standard". He said he will call his new place Whitesands Hotel. Later, Ali Bin Salim the Liwali (Chief) gave Robertson a few more acres of land on the beach. In 1941 Mrs. Stocker bought 'Whitesands Hotel' from Widow Robertson. She built a larger establishment of 8 cottages and Whitesands Hotel was open for business.

In 1946, Mrs. Stocker sold Whitesands Hotel to David Durwood Brown- credited in making Whitesands Hotel popular with the locals. In 1960, Akberali Manzi bought Whitesands Hotel from David Durwood Brown and seventy new rooms were built, the central complex was reconstructed and a boat bar was introduced. Renovation went on and by 1976, 'The Whitesands Hotels' was turned into a five star hotel where Sarova Group of Companies bought the Whitesands Hotel and set into motion ambitious development plans which changed the hotel from 70 rooms in 1976 to 173 and then to 340 by 1996.The 340 rooms consists of 2 Presidential Suites, 6 Executives suites, 138 Standard rooms, 128 Sea front rooms, 66 Palm rooms. One can access this great resort in a number of ways. By road which will take you eight hours from Nairobi , by air which will take 45 minutes and transfer from the Airport is 30 minutes and covers 23 Kms, overnight train ride takes 12 hours and transfers to the Railway station take 20 minutes and covers 15 Kms. Kothari(1990)

1.2 Statement of the problem

Room reservation in Whitesands Hotel has been file based and has remained unchanged for a long period. Due to this, congestion of customers' orders in booking desk took a lot of time to carry out resulting to long queues of orders waiting to be serviced. On the other hand, services provided was limited to people who personally visit the hotel. These processes did not keep pace with the growing economy and industry in which it competes. This led to customer breaking their relationship with the hotel.

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This project has led to the development of the Web Based Hotel Reservation System to handle the room booking procedure better than file based booking system, which was limited to most users from a far.

1.3   Objectives of the study

1.3.1 General objective.

The main objective of the study was to develop a Web based system for Hotel reservation in Kenyan Hotels

1.3.2 Specific objectives.

i)   To investigate into the existing literature in order to get what is required in developing a web based hotel reservation system for Whitesands Hotel.

ii)   To design a Web based hotel reservation system that meets the customer requirements, that is, a system that will display general information about Whitesands Hotel activities.

iii)   To implement a Web based hotel reservation system that is user friendly with a system interface that will be used by the staff and users, there by reducing stress and fatigue in the daily operation of the hotel activities.

iv)   To validate the Web based hotel reservation system developed during the course of the study.

1.4 Scope of the project.

The research was conducted in Whitesands Hotel Mombasa the coastal region of Kenya.It was confined to reservations of hotel rooms where the study was limited to the customers' requests in booking process online. This project identified the problems that the customers and the organization face in booking and allocating of hotel rooms. The project aimed at generating report which analyzes the booking, check in and checkout status for the organization and use the gathered data in reports to help analyze the marketing and financials results. This study will raise awareness among business hotel in East Africa that there is potential through the internet.

1.5 Significance of the project

This project is to raise awareness to Hoteliers that the internet can make their work easier, improve their productivity and widen their market in today's competitive world. The Web based hotel reservation systems provides competitive advantage to businesses due to increase in the amount of information processed and precautions taken on how this information should be stored. There has been an increase on the amount of data created, stored, and retrieved by most organizations as Awitt L.F and hermer 2009[1].

Since it is every manager's dream to get new customers as well as maintaining the existing customers, the implemented Web based hotel reservation system enables easy tracking of the hotels customers as well as their room booking requests

i) The designed system helps to overcome the problem of unauthorized data access by ensuring security and data integrity with the customers' data. This was achieved by creating authenticated usernames and passwords giving access to only those authorized parties.

ii) The system helps to boost Kenya economy in general. This is where customers book online in different parts of Kenya and even outside East Africa thus raising the Kenya revenue through taxation to the government.

iii) Academically, the study has helped the researcher to gain practical skills giving the researcher a clear overview of how to design and implement what is studied theoretically in class. The success of this project also contributes to the fulfillment of the requirement of a Bachelors Degree in Computer Science to zoom out to real life situation.

iv) This project will be useful in providing information of associated opportunities and benefits of Web based hotel reservation system

The new developed Web based hotel reservation system will be able to solve the rising complains from customers and the degenerating economy which has brought a great concern to the Whitesands Hotel operation among the tourist industry. In addition, research results indicate that a growing trend in rooms booked via the Internet is not emerging from existing customer bases, thereby implying that the Internet is able to attract new market segments (Connolly et al., 1998). [5]

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Chapter Two: LITERATURE REVIEW

Introduction

Education level, age, income and occupation have been found to be significantly different among Internet users. Bonn *et al.* (1998)[4] study showed that those who use the booking online as a travel information-gathering tool are likely to be more educated, younger, with higher household incomes, use commercial lodging accommodations while traveling, tend to travel by air and spend more money on travel-related expenses. Weber and Roehl's (1999)[16] study shows similar results. It is demonstrated by past research findings that prior online booking experiences have a direct impact on online booking intentions (Weber and Roehl, 1999)[16].There have been other studies that have supported online experience as a key determinant of online booking behavior (Bellman, Lohse, and Johnson, 1999[3] and Beldona et al, 2004) [2]. Findings indicate that the greater the number of years the user spent online combined with higher frequency of Internet usage; the greater was the likelihood of booking (Bellman et al., 1999[3];Weber and Roehl, 1999[16] and Beldona et al, 2004)[2].Therefore we review on existing work done by various researchers on online booking design, usage, merits and demerits of web based hotel reservation system and how various requirement stage undergone to develop the design. This makes transformation easier from the old system to the new basing on the design and general effects to the user.

2.0 Web based System

A web based application is a software package that can be accessed over the internet through web browser. The software and database reside on a central server rather than being installed on the desktop system and is accessed over a network A Website is a collection of Web pages, images, videos or other digital assets that is hosted on one or several Web server(s), usually accessible via the Internet, cell phone or a LAN (Kim and Kim, 2007) [12]. There are basically two types of websites pages that is static/non-dynamic websites pages which is a website that has web pages stored on the server in the same form as the user will view them and dynamic websites which is a website that has

frequently changing information or collates information on the hop each time a page is requested or information is fed or needed from a database. (Kim and Kim, 2007) [12].

Advantages of Web based System.

Much like a search engine, you can provide a directory of contacts or events on the Web that can be searched in a number of ways. The data is stored in a database and can be searched through a Web interface. (Gianni, 2002) [20] States that querying a database that sits behind a search engine is merely the tip of the iceberg when it comes to using a database to provide dynamic content for your website visitors. If you have a large number of documents that you want to make available to the public on the Web, you might consider developing a database-driven library of these documents that would allow people to search for certain documents or browse lists of categorized documents (Gianni, 2002) [20]. If your Website contains a large number of pages or you have a number of different people involved in updating and maintaining your site, you may consider using a content management system to maintain a consistent look and feel for all your pages. Rather than developing a number of static Web pages, you develop the content and plug it into a template for your Website. The information is stored in a database (Stefan, 2000) [19].

With the use of ASP model, you'll be freed from all the time-consuming and expensive tasks associated with maintaining your server such as hardware upgrades, configuration, bug fixes and enhancements. Everything is done for you. The POS vendor can even do custom software configurations, upgrades, and back up the data for you. The ASP model also allows you to run your POS software from any location with internet access. So you can work from home or on the road. Since all the processing is done at the server, your workstation requirements are very low. A 5-year-old computer with internet access can run just as fast as a brand new computer. The ASP model is even more beneficial. In fact, it allows you to share almost any type of information in real-time (assuming your POS software supports multi-store features).

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Disadvantages of web based Systems

User experience on a web based system differs from that on the normal, everyday software. We have become accustomed to the user friendly MS Windows interface. This interface includes multiple windows displaying different information, instantly appearing drop down selection boxes, quick loading and printing reports. On the web, however, we see one page at a time, click on a link, load and view the next page, and so on. This slows down the interface significantly, taking staff time away from their maintenance responsibilities. While this method might be acceptable for an occasional purchase or annual vacation, it can be very tedious as a daily work experience. Monthly or annual subscriptions and user fees quickly add up, and over a relatively short time, can overtake any initial savings. You might lose your program and your data if your vendor is unable to continue supporting the system. A system is only successful if the staff uses it constantly and consistently. Internet response time, even with a "high speed" connection, is significantly slower than a local network. This can be frustrating for your staff during data entry or reporting tasks. The biggest problem with the ASP based model is its speed and reliability of the internet. If your internet goes down, then you can't access your POS software. In addition, the speed of your POS will be determined by the performance of your internet connection and it will take a little longer to switch screens and run the software.

2.1 Working of Web based systems

The Websites are written in, or dynamically converted to HTML (Hyper Text Markup Language) and are accessed using a software interface classified as a user agent. The site has Web pages (document which is always accessible via HTTP - a protocol that transfers information from the Web server to display in the user's Web browser.) can be viewed or otherwise accessed from a range of computer-based and Internet-enabled devices of various sizes, including desktop computers, laptop computers and cell phones.After each Web page is created, they are typically linked together using a navigation menu composed of hyperlinks (Lowery, 2006)[21].

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Once a Website is completed, it is published or uploaded in order to be viewable to the public over the internet. This is done using an FTP client. All publicly accessible websites are seen collectively as constituting "(WWW)". The pages of websites can usually be accessed from a common root URL called the homepage, and usually reside on the same physical server. The URLs of the pages organize them into a hierarchy, although the hyperlinks between them control how the reader perceives the overall structure and how the traffic flows between the different parts of the sites. Some websites require a subscription to access some or all of their content Websites are constrained by architectural limits e.g., the computing power dedicated to the website.

The first on-line website appeared in 1991. On 30 April 1993, CERN announced that the World Wide Web would be free to anyone (Cailliau, 2007) [22]. One of the most common types of dynamic web pages is the database driven type. This means that you have a database that gets information from a web page (the web page is connected to the database by programming,) and inserts that information into the database each time it is loaded. If the information stored in the database changes, the web page connected to the database will also change accordingly and automatically that is without human intervention (Stefan, 2000) [19]. Using a database in conjunction with your web pages allows you to deliver text, images and other web content based on specific requests for information from people viewing your site. So rather than static pages which always deliver same information, you can offer dynamically generated pages which could better serve your site's visitors (Gianni, 2002) [20]. In the database driven website all information is stored in table format of databases on the server. Usually database driven websites have admin panel with user-friendly interface where you can manage the site content, i.e. add, edit, or delete information by yourself, create new pages or delete old ones. You can update your site easily each time you need it.

2.3 Types of web based System

ASP

There are different types of "web-based" systems, so let's start with the ASP (Application Service Provider) model. With ASP based systems, your POS software is hosted and maintained by a remote organization, freeing you from the hassle and costs of maintaining your own server. This allows you connect to the server via the internet and run your POS system from almost any location. Most companies charge a monthly rental fee for this service.

JSP

According to Gareth Downes-Powell et al (2003) [9], Java Server Pages is available in various flavors. For many years, Java was touted as being the ultimate in platform-independent coding. This was the promise, and to a degree, that promise was delivered. The move from Java-based applications to its use as a method of dynamically creating web pages was a logical one. Certainly, the great thing about this architecture is that it can be run on any platform, on any machine, so it is a good candidate for portability and compatibility.

As there are a number of variations, at this point we clarify how JSP is structured. First of all JSP is what is called a 'reference implementation' of Sun Microsystems Java Server Pages. In essence, Sun Microsystems determine how JSP should be implemented, and have developed a standard by which all versions of JSP should comply, called the Java 2 Enterprise Edition (J2EE). There are various open-source and commercial implementations of JSP, including Macromedia JRun Server and Caucho Technology's Resin. Since there are various implementations, it can be difficult for the first time user to decide which version they should use. Different versions written by different software houses also bring a huge difference in quality, stability, and speed for each of these environments, as each has its own unique nuances.

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2.4Application areas of Web based Hotel reservation System

The system provides two basic services: server-side services and client-side services. The client side services include Web-based interfaces that the administrator and travelers will use when they want to carry out their specific tasks. The administrator will access the system by using an assigned user id and password. The server-side services will allow the client-side services to access and modify the data in the database. They would also allow dynamic creation of the 'pages' the traveler sees (except for the static pages for individual hotels that provide information about the facilities they provide) while using the system based on this data. The database holds information in various tables related to hotel information, room rates, room allotment details, traveler details and payment details. The system provides interfaces for two types of users, travelers and the administrator. It allows travelers to make hotel bookings over the Internet, obtain information about hotels and rooms of the hotel, facilitate bookings of a room for a given set of dates and cancellations of room bookings and deliver confirmation messages for room bookings. The administrator-end features are rooms bookings, bookings cancellation, requests for rooms not satisfied, rooms to be 'surrendered' to hotel, commission to be paid to traveler sites, modify details related to availability of rooms to be booked, provide a link to a pre-created HTML file that provides a description of the hotel and its facilities. Reegane(2007)[22].

In this project the Web based Hotel Reservation system provides ease to online booking customers with the ability to accept online reservations and manage inventory. Guests are able to check available inventory and complete a booking online, making the reservation process more efficient and less time consuming to both parties. Guests confirm accommodation in real-time from the website, closing the sale immediately while valuable reservations staff time is saved because reservation requests will no longer have to be processed by automating the sales process, you will be able to handle the same amount of transactions, or more, at a much lower cost. Moreover you will also gain significant control over your margins and pricing strategy.

2.4.1 Other areas of application

Web-based reservation system are used in various way on the internet to obtain information to do business. Starkov [14] suggested approaches for the hotels and construction industries towards solving typical computer problems. Turban et al. (2000, p.20) [15] It can be viewed as a sub system of information systems. This include: Online banking sites; where you can log in (by entering your user name and password) and check out your bank account balance. Your bank account information is stored in a database and has been connected to the web page with programming thus enabling you to see your banking information. Commerce; database driven website is the key technology behind it. The online publishing, computerized library system, flight reservation systems, computerized parts inventory systems like Seattle mariners and Internet applications like electronic mail, browsing and participating in newsgroups and chart rooms are the common application.

2.5 Approaches of developing webbased system

PHP Engine

According to Gareth Downes-Powell et al (2003) [9], it is used as a programming language to interpret the requests made from the World Wide Web, process these requests, interact with other programs on the server to fulfill the requests, and indicate to the web server exactly what to serve to the clients' browser. According to Gianni (2002) [20] three languages that are commonly used for interacting with databases on the Web are ColdFusion (a proprietary solution developed by Macromedia), Active Server Pages (also called ASP - a proprietary language developed by Microsoft) and PHP ((Hypertext Preprocessor) an open source solution not "owned" by any company). In this project PHP is used because it has a lot of advantages such as, fast, stable, secure (PHP offers many levels of security to prevent malicious attacks), easy to use, open source and it has connective abilities that it uses a modular system of extensions to interface with a variety of libraries such as graphics, XML, encryption. In addition, programmers can extend PHP by writing their own extensions and compiling them into the executable or they can create their own executable and load it using PHP dynamic loading mechanism.

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It integrates well across many platforms and with various software programs. PHP In this respect, does have the edge, for there is a single development base, with a group of individual developers supporting, maintaining, and improving PHP at each stage it is stable, reliable, and much easier to implement than its JSP counterparts. It also means that there is no confusion about which "type" to use, as there is only one PHP.

DBMS

According to Date (2000) [6], it is a software system which enables users to define, create and maintain database and which provides controlled access to the database. The database system allows two or more people to access a given record simultaneously, sharing of data, improves data integrity and incase of any updates, the changes are reinforced.

Web server (Apache)

According to Greenlaw (2001) [13], it is a computer with specialized software that can respond to browsers request for a page and deliver it to the browser through the internet.

Operating system

According to Rajkumar (2001) [7], is a set of system software routines that is between the application program and the hardware. All other software runs under the operating system's control. Windows uses a colorful graphics interface that among other things, ease the access to the operating system. Graphical user interface (GUI) makes windows so easy to use. Types of windows include windows 95 &98, ME (millennium edition), NT (new technology), 2000(which has a server version that's an example of a network operating system that helps share resources), windows XP and windows CE. But the operating system that will be used is windows XP

MySQL server

According to Gareth Downes-Powell et al (2003) [9], MySQL is a relational database management system. An RDBMS defines relations between data structures. A relation between two data structures is a way to construct new virtual structures in a way that will

enforce some constraints or conditions. This will help the user to construct a robust application. Most of the operations we will describe in this book are relational operations. The SQL language, which is commonly used on database software, will let you talk in a human-friendly way to the server to retrieve information from your database and manipulate the data in it. You may find many other flavors of SQL database server, for example Oracle, IBM DB2, Microsoft SQL Server, but they will all speak the same basic language: SQL

2.6 Development methodology in web based System.

2.6.1 System Development Life Cycle (SDLC)

According to Whitten et al (2000) [11], it involves phases through which a system goes through from the time of initiation to the time the system is put in operation. Development of a system goes through the following stages

- **Investigation** This is where the nature and scope of the problem are studied and alternative solutions to the problem are brought up
- **Analysis** Involves gathering of data and writing of reports. Data analysis take place using tools such as data flow diagrams, data dictionary, decision tables and trees
- **Design,** is done using preliminary tools, case tools, and project management software. Detailed designs are also made here, that is, the output design (what is produced by the system and whether the products are useful), input design (the analyst must determine what inputs are needed to produce these outputs), file design(the analyst decides how the data will be stored and accessed) and finally the system processing and general program design(the analyst decides how various parts of the system interact with one another to produce the outputs from the inputs using appropriate files). Whitten et al (2000) [11],
- **Implementation,** is the time from when the system has been formally approved to the time the system is ready for use. The activities may include writing of programs, testing of programs, training users. Whitten et al (2000) [11],

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- **Testing,** this phase the system is tested. Normally programs are written as a series of individual modules, these subjects to separate and detailed test. The system is then tested as a whole. The separate modules are brought together and tested as a complete system. The system is tested to ensure that interfaces between modules work (integration testing), the system works on the intended platform and with the expected volume of data (volume testing) and that the system does what the user requires (acceptance/beta testing). Whitten et al (2000) [11],

- **Maintenance.** Inevitably the system will need maintenance. Software will definitely undergo change once it is delivered to the customer. There are many reasons for the change. Change could happen because of some unexpected input values into the system. In addition, the changes in the system could directly affect the software operations. The software should be developed to accommodate changes that could happen during the post implementation period. Whitten et al (2000) [11],

INVESTIGATION

ANALYSIS

DESIGN

IMPLEMENTATION

MAINTAINANCE
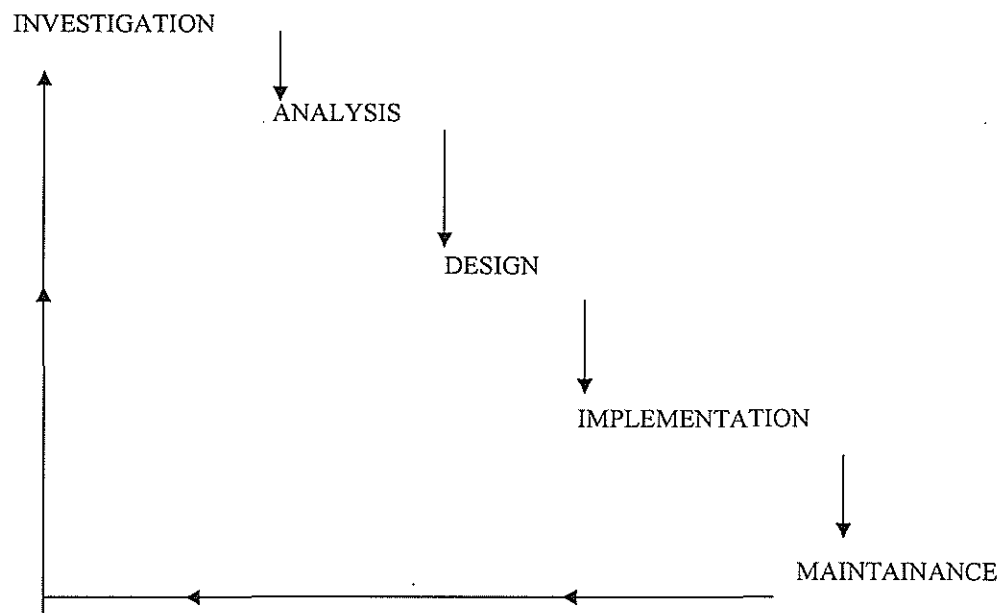
Fig 1.System Development Life Cycle

2.6.2 Prototyping

It is the process of quickly putting together a working model so as to test various aspects of a system design, illustrate features of the system and gather array user feedback and if it meets the functionality and other design goals then the system is put into operation. The advantage is that it is cost effective and it helps refine the potential risks associated with the delivery of the system being developed. It also increases system development speed. (Whitten et al, 2000)[11]

2.6.3 JAD (Joint Application Development)

It centers on a structured workshop session. It brings together business area people (users) and IT professionals in a highly focused workshop. The advantage of JAD include: a dramatic shortening of time it takes to complete a project and it also improves the quality of the final product by focusing on the upfront section. (Whitten et al, 2000)[11]

Therefore aggregating data from surveys can be a valuable way for you to evaluate programs or collect information from your members or people who care about your work.. Sending out paper surveys and doing the data entry to analyze your results can be frustrating and time consuming, so using the Web to collect that information is a great way to simplify the process (Gianni, 2002) [20].

Chapter Three: METHODOLOGY

3.0 Introduction

This chapter described how specific objectives were achieved. The researcher has step by step investigate the existing literature concerning online booking drilling down to those designed for the Whitesands The Web based reservation system followed the following sub sections as illustrated below

Diagrammatic representation of steps taken in development of the system.
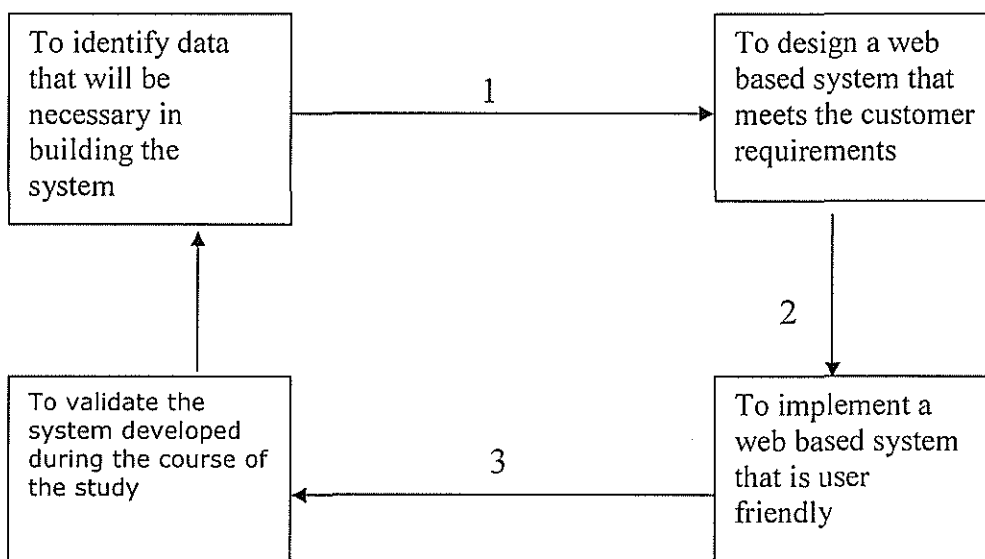
Fig2 shows steps taken in development of the system.

3.1 Data identification

Under the system study the researchers carried out a detailed investigation of the problem domain and establish that the problem really existed and found out ways of solving the real problem, its scope and how best it could be solved. To aid in the identification, the researcher used the following fact finding techniques.

3.1.1 Document Analysis

This was carried out by reviewing of previous study and existing literature and documentations. This helped the researcher to get a background of the problem which provided a good starting point and helped in obtaining the requirements for the system. By reviewing some of the documents, the researcher was familiar with the operations that are performed and the formed relations within the organization. The main advantage of this approach is that it takes less time and it is less expensive as compared to other forms of fact finding because it is reliable to the existing literature. This document analysis was inexpensive way of acquiring information since it was easily available which provided opportunity for study of historical trends of events over time which was seen impossible with other data collection methods. As a result data collected was highly qualified, valid, available and reliable making it a strong base to build a question such as a reference.

3.1.2 Observation

The researcher used the natural and participant method. As being one of the customers of Whitesands Hotel and living in Kenya he was able to survey day to day activities in the hotel concerning the booking procedures that were being carried out. This helped to better understand the problem, its scope and to obtain the best solution to the problem.

3.1.3 Questionnaire

The researcher also carried out questionnaires, the sampling frame was based from the hotel customers' e-mail list server directory. A bilingual questionnaire of English (the country's national language) was constructed based on previous research by Jarvenpaa and Todd (1997) [10].The researcher found out that questionnaires allowed individuals to maintain anonymity. Therefore individuals provided real facts. Below is a sample of a questionnaire

Questionnaire

The questionnaire below is to be filled basing on one's knowledge of the question. We please request you to fill in only what you know. It will be confidential, used for research purpose only.

1. What are the problems faced while using the current system?

The current system is not handy because it takes us a long time in getting the customer details and in providing our service to the customer.

2. What do you think should be done to address the problems mentioned above?

A computerized system should be developed in place of the existing system. This will help us be able to store and retrieve data within the shortest time possible and through this system we will be able to reach out to many customers since it will be based on the internet

3. What are the possible measures put in place to cater for the unpredictable disasters that may damage the data in storage?

We make copies of the data which we store in a separate room

4. How do you ensure the confidentiality of the data in files?

We issue identification cards to all the workers and for one to be able to access the file he has to prove his/her identity before being issued with it

5. What is the average time needed to process a transaction file before it is taken for storage?

It takes roughly fifteen minutes

6. How do you rate the performance of the existing system? Why?

Fair - because we are able to get the customer details, store them, retrieve them, and carry out the booking process though it takes long.

7. What are the reports generated at the end of each process?

Financial reports, reports on the rooms available and those that are occupied,

8. How often is the data entered into the system?

Daily

3.1.4 Interviews

This is a fact finding technique that allows the evaluation team to capture the perspective of the project participants, staff and others associated with the project. The researcher conducted both one-on-one and group interviews Although the approach was expensive and time consuming, the researcher was able to get a one-on-one chance with the customers thus was able to better understand the problem, as shown in the sample table below for administrator.

Table 1 sample questions from interview conducted

INTERVIEW GUIDE Interviewees: Administrators Subject: Views on the current system		
Time Allocated	**Interviewer Question or Objective**	**Interviewee Response**
1 to 2 min	**Objectives** Open the interview -introduce the research team -thank the interviewee for their time -State the purpose of the interview	
5 min	**Question 1** What is the current procedure used in getting customer details? What details are taken at that time?	We ask the customers to fill out a form that is given to them on arrival. We take the customers name, contacts, room requirements and his mode of payment
5 min	**Question 2** How Long does a customer wait before being served? Approximately how long does it take to get all the information from the customer?	It depends, if the queue is long it will take some time but if it is not, he will be served within a short time. Fifteen minutes on average
5 min	**Question3** What can you say about the current booking process?	It is not very convenient especially if we are to handle several customers at a given period of time
3 min	**Question4** Approximately how long does it take to come up with urgently needed information from your files?	Twenty to twenty five minutes
5 min	**Question 5** How do you feel about the current system? Do you find any problems in using the current system? If yes, name them.	The current system is not handy because it takes us a long time in getting the customer details and in providing our service to the customer.

3.2 System Design

It defines the structure and contents of the new system and the Specification of how the system will be implemented

Categories of What was Designed

✓ **Application Architecture and Modeling (Physical Design)**

It specifies the technologies to be used to implement one or more information systems in terms of Data, Process, Interface and how these components interact and communicate across a network. It serves as an outline for detailed design, construction and implementation.

✓ **Logical DFDs of the target system:** these and their accompanying specifications were intended to represent the detailed non-technical requirements for the new system.

✓ **Physical DFDs of the target system:** were intended to propose and model the technology choices and design decisions for all logical processes, data flows and data stores

✓ **User Interface Design**

Input design- permits users to display or enter data. Data entry screens. Web based Hotel Reservation system files specification:

i. Customer Details File

ii. Booking File

iii. Administrator File

iv. Payment File

v. Cancel File

Output designs: reports for presenting data. The output is what is produced by the system after it has done some processing. This output is in form ofreports and can be printed as hardcopy. The softcopy is displayed on the   screen as required by the user include,

i. Customer Report

ii. Payment Repor

iii. Booking Report

Database Design

This is the process of translating logical data models into physical database schemas. A database is a collection of tables with logical pointers that relate records in one table to records in a different table. Database architecture is build around a database management system that provides the technology to define the database structure and then to crease, read, update and delete records in the tables that make up the structure. A DBMS provides a data language to accomplish this. That language provides at least two components:

The data definition and language to create and maintain the database structure and rules.

The data manipulation language to create, read, use, update and delete records in the database.

3.3 System Implementation

This is very crucial stage of the software development process. It involves turning the requirements into technological terms. Implementation includes conducting of system tests, conversion from the old system to the new system, installation of databases and training of users. The interfaces were developed by the use of PHP while the database was realized by the use of MYSQL, Wampserver 2. In order to perfect the functionality of the system, the designers ensured every process flow of bookings has its own entity and corresponding user-friendly interfaces.

Coding:

This is the actual programming which involves writing codes using a selected programming language.

Testing:

It is the process that determines whether the system produces the desired results. Testing is done through out the system development life cycle. Testing is broken down into:

- ✓ **Unit testing**: Testing individual component separately to remove errors. This is normally done by the programmer.

- ✓ **System testing:** (Integrated testing) tests the functioning of the information system as a whole to determine if discrete modules will function together as planned usually done by an independent test team.
- ✓ **Acceptance testing,** is tested by users to provide final certification that it is ready to be used. Systems tests are evaluated by users and reviewed by management when all parties are satisfied, then the system can be installed

Major Objective of Testing

i. Test the system to remove errors

ii. Test the system to verify whether it satisfies user requirements

Debugging:

The researcher was able to remove errors from the system.

3.4 System Validation

Validation is an attempt to build into the computer program the power to detect whether system made are correct. Through data entry, incorrect data items are detected and reported. The validation Range checks used in this project include Individual component testing and composite application testing was done to ensure that the proposed system conforms to the Hotel system requirements before deployment. Using the individual component testing, individual modules were frequently verified so that they are functioning as required. On ensuring their smooth functionality, composite application testing was applied to make sure that the modules can easily work together as a system To achieve the objective of testing and validation for the proposed system, the researcher used sample data for testing at all phases of the system implementation. The researcher used data constraints to several data inputs to ensure data consistence as well as security control measures, for example the passwords and user names, email address, among others hence optimal assurance of the system integrity.This chapter has covered the methodology used in the study, data collection survey of the researched sample, design techniques including implementation and validation of the system in this case of study

Chapter Four: SYSTEM DESIGN

4.0 Introduction

This will involve creation of a design that will support the objectives of the required hotel reservation system to the benefit of our area of case study

4.1 System design

System design is the specification or construction of a technical, computer based solution for the business requirements identified in a system analysis. System design focuses on the technical implementation concerns of the system. It is driven by the technical concerns of system designer. System design is looked at from three perspectives:

    i.   Logical Design

    ii.   Physical Design

    iii.   Database Design

4.1.1 Logical design

Logical designs depict what a system is or what a system must do but not how the system will be implemented. They are implementation independent, that is, they depict the system independent of any technical implementation.

ER-diagram

Fig 3 ER Diagram of the Webbased Hotel Reservation system
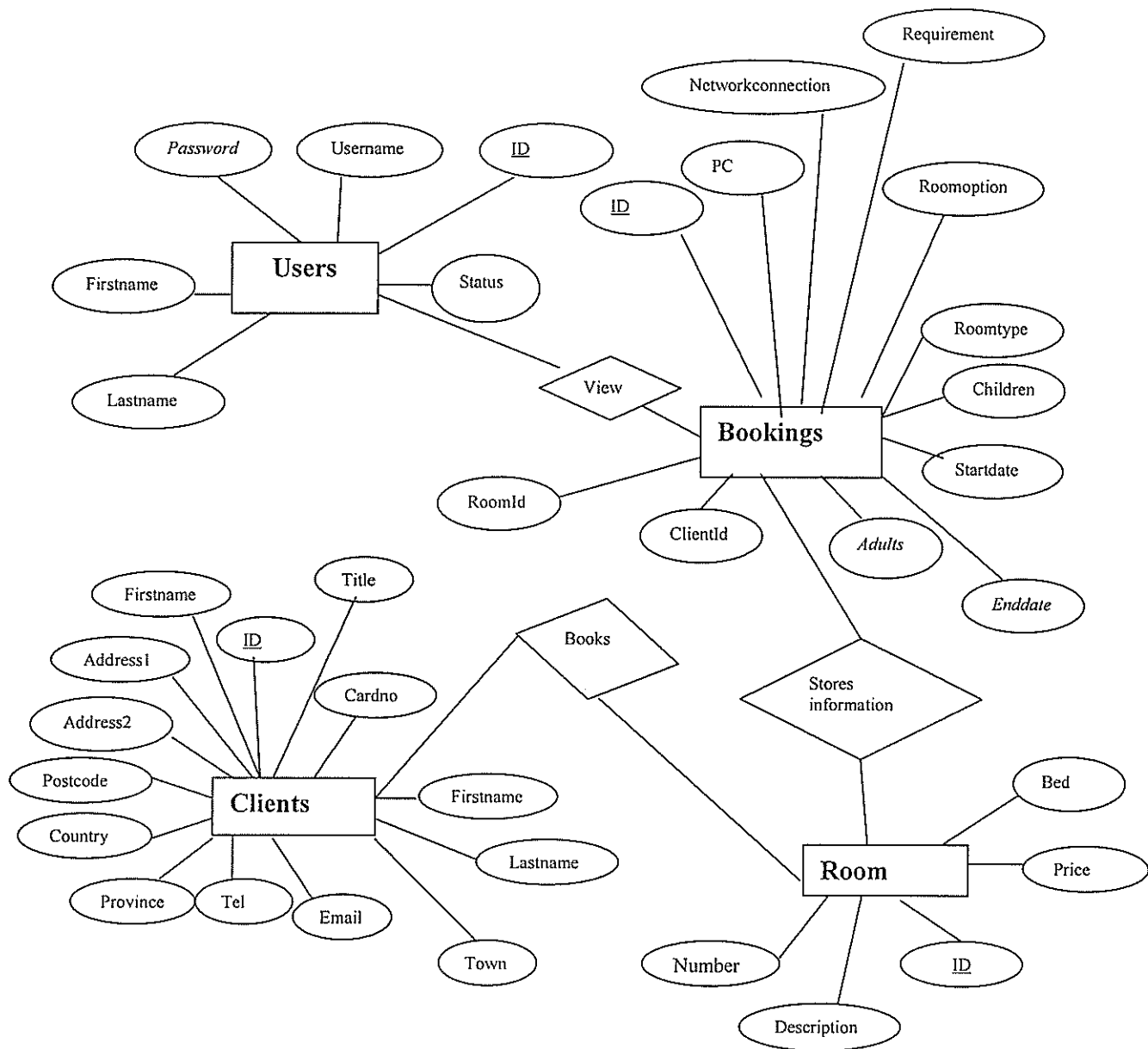
Flowcharts

Fig 4   Flowchart for booking system


```
                    ┌─────────────────────────┐
                    │   Reservation System    │◄──────────────┐
                    └───────────┬─────────────┘               │
                                │                             │
                    ┌───────────▼─────────────┐               │
                    │ Reservation requirements,│              │
                    │ Arrival/ Departure dates │              │
                    │ and Room Type            │              │
                    └───────────┬─────────────┘               │
                                │                             │
                    ┌───────────▼─────────────┐               │
                    │ Search Room             │               │
                    │ Table for               │               │
                    │ appropriate rooms       │               │
                    └───────────┬─────────────┘               │
                                │                             │
                    ┌───────────▼─────────────┐               │
                    │ Remove all rooms        │               │
                    │ with any entry in       │               │
                    │ Bookings Table for      │               │
                    │ this time period        │               │
                    └───────────┬─────────────┘               │
                                │                             │
                         ╱──────▼──────╲                      │
                        ╱ Is room total  ╲      Yes    ┌──────┴──────┐
                        ╲ equal to zero? ╱────────────►│    Room     │
                         ╲──────┬──────╱               │ Unavailable │
                                │  No                  └─────────────┘
                    ┌───────────▼─────────────┐
                    │ Finalize booking        │
                    └─────────────────────────┘
```

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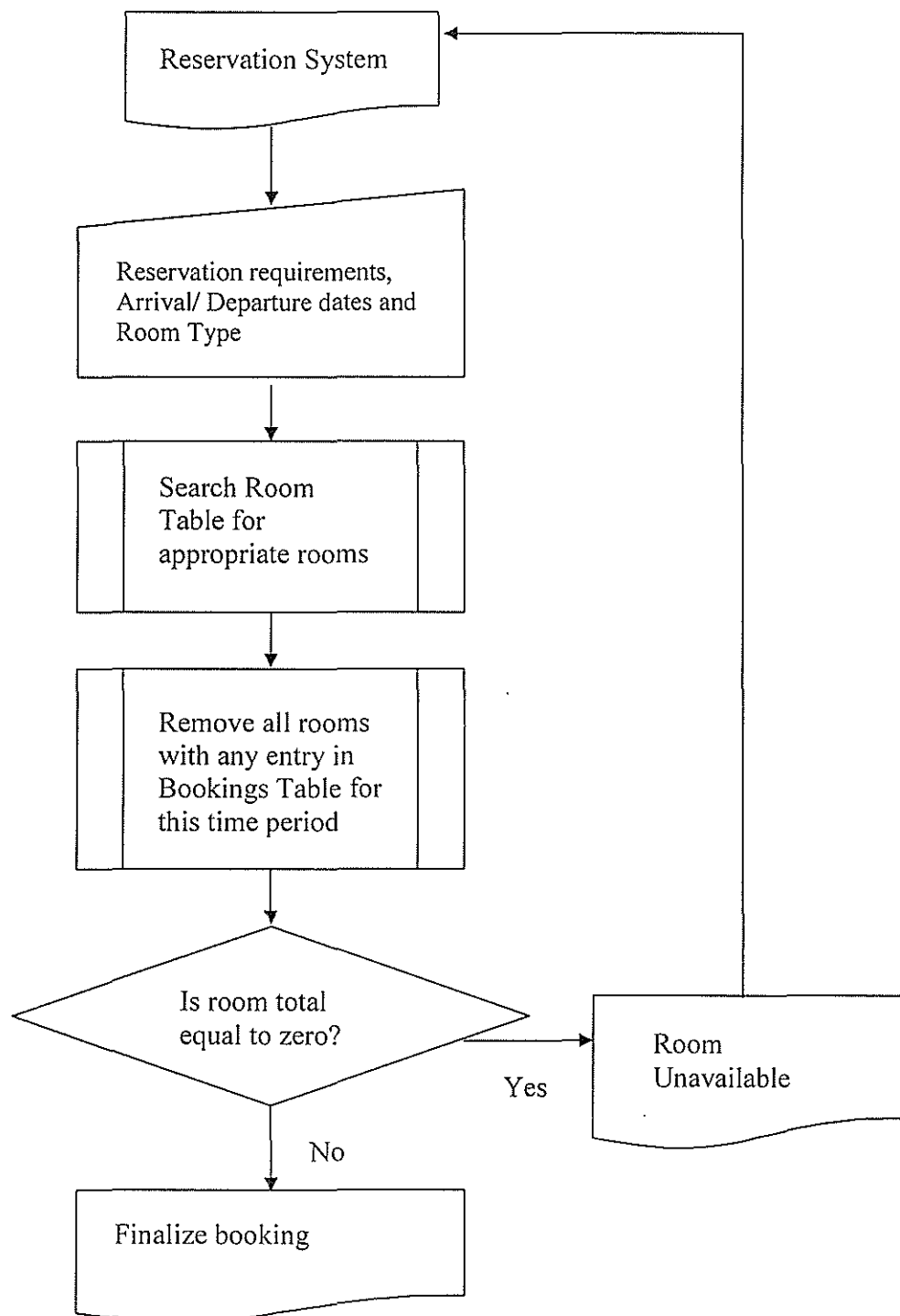
Fig5 Flowchart for billing system

Administration system prepare bill

↓

Room number

↓

Retrieve roomID from Room Table

↓

Using roomID retrieve clientID from Bookings Table

↓

Using clientID retrieve customer information from clients table

↓

Did client check in? — no → Add booking fee to bill

Yes ↓

Using clientID retrieve items from billing table

↓

Total bill

Fig6 Log in System

Fig6 Log in System

Administration system login

User name and password entry

Encrypt password and verify information

Is login valid?

no → Failed login

yes

Mark user as logged in

Successful login
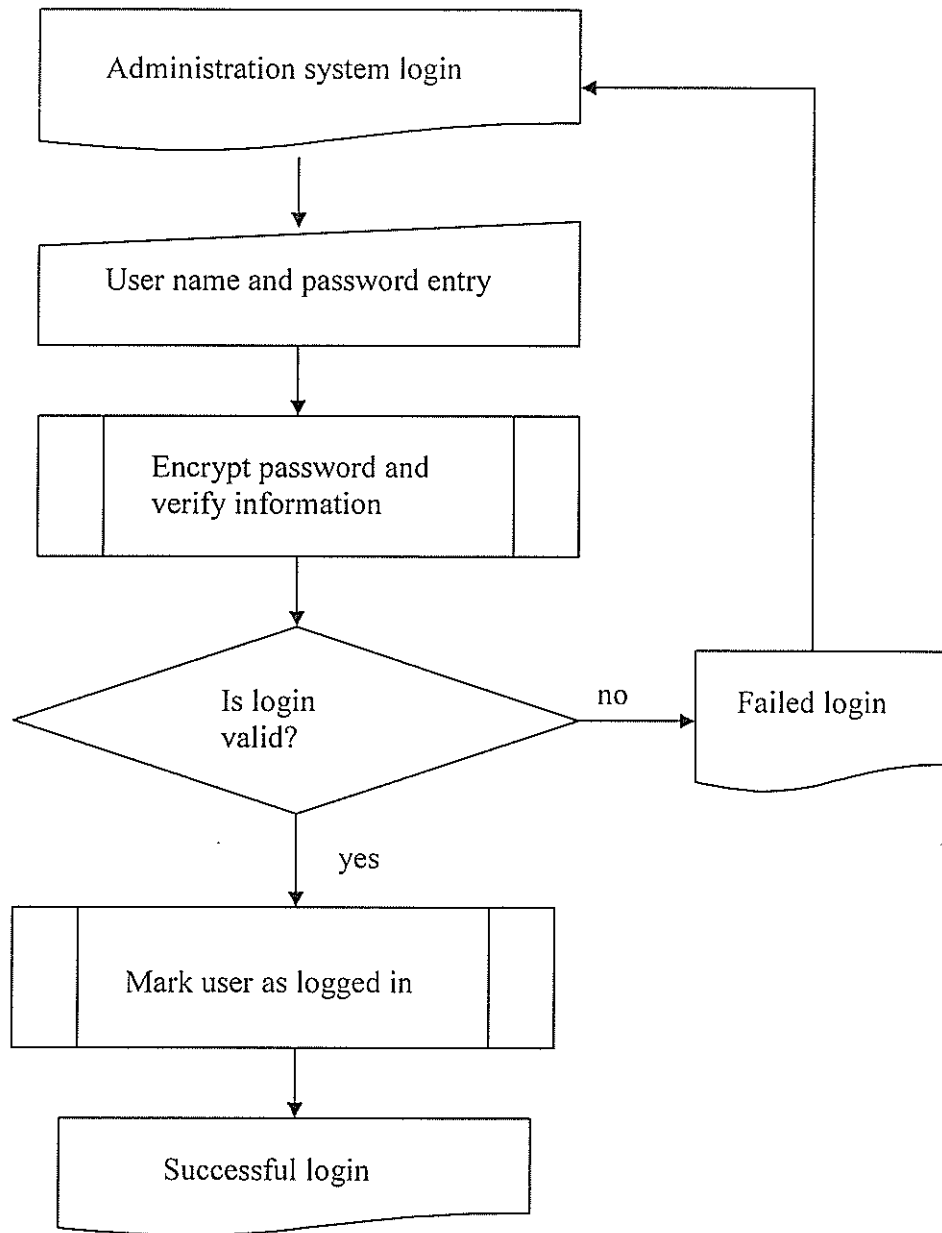
The booking system process that we wish to use for The Whitesands Hotel consists of the customer arriving at our site, entering their required dates of arrival and departure, and the kind of room that they wish to stay in. Using this information, the site searches the relevant database tables (bookings and rooms) to establish that it is possible to make the reservation. If the reservation is not possible then the visitor is given the opportunity to specify an alternative set of dates, or alternative room type via his or her email. If there is a suitable room for the period stated, the system allows the customer to complete the booking by entering their personal information and credit card details to secure the room.

4.1.2 Physical Design

Conceptual design of database

Table2 Bookings Table

| Field	Type	Collation	Attributes	Null	Default	Extra
ID	tinyint(11)			No		auto_increment
RoomId	tinyint(11)			No	0	
ClientId	tinyint(11)			No	0	
StartDate	date			No	0000-00-00	
EndDate	date			No	0000-00-00	
Adults	int(11)			No	1	
Children	int(11)			No	0	
RoomType	varchar(30)	latin1_swedish_ci		No		
RoomOptions	int(8)			No	0	
NetworkConnection	int(8)			No	0	
PC	int(8)			No	0	
Requirements	varchar(250)	latin1_swedish_ci		No		

Table3 Users Table

Field	Type	Collation	Attributes	Null	Default	Extra
ID	int(8)			No		auto_increment
Username	varchar(20)	latin1_swedish_ci		No		
Password	varchar(20)	latin1_swedish_ci		Yes	NULL	
Firstname	varchar(30)	latin1_swedish_ci		No		
Lastname	varchar(30)	latin1_swedish_ci		No		
Status	varchar(10)	latin1_swedish_ci		No		

Table4 Clients table

Field	Type	Collation	Attributes	Null	Default	Extra
ID	tinyint(11)			No		auto_increment
Title	varchar(10)	latin1_swedish_ci		Yes	NULL	
FirstName	varchar(30)	latin1_swedish_ci		No		
LastName	varchar(30)	latin1_swedish_ci		No		
Address1	varchar(100)	latin1_swedish_ci		No		
Address2	varchar(100)	latin1_swedish_ci		Yes	NULL	
Town	varchar(100)	latin1_swedish_ci		No		
Province	varchar(100)	latin1_swedish_ci		No		
Country	varchar(40)	latin1_swedish_ci		No		
Postcode	varchar(20)	latin1_swedish_ci		No		
Tel	varchar(20)	latin1_swedish_ci		No		
email	varchar(100)	latin1_swedish_ci		No		
CardNo	varchar(16)	latin1_swedish_ci		No		
ExpiryDate	date			No	0000-00-00	

Table5 Room Table

Field	Type	Collation	Attributes	Null	Default	Extra
ID	int(11)			No		auto_increment
Price	text	latin1_swedish_ci		No		
Bed	tinyint(4)			No	0	
Description	text	latin1_swedish_ci		No		
Number	tinyint(5)			No	0	

4.2 Systems Security

Software

- Use of passwords to allow only authorized users to gain access to the systems documents.
- Install anti-virus software that will help detect and clear viruses.
- Take regular backups in case of data loss.
- Diskettes should be checked for viruses before being used.

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Hardware

- Lock all computer room doors to restrict any physical access.
- Employ watch guards if need be to restrict any physical access.
- Keep all hardware away from fire and water.

4.3 The current system

Whitesands Hotel uses paper based manual process throughout all its daily booking transactions. These methods are very prone to errors in that some documents containing critical information about customers and other valuable information can easily be misplaced. The customer has to come manually and request for booking from the hotel; The person in charge of the service has to record customer's details in a book and sometimes may not even be sure whether the required room is occupied or not. This creates a hustle of having to first check manually in the files for the information. Above all customer relationship management is very difficult to achieve when using such manual based processes.

4.4 Proposed System

After analyzing the current system and in order to improve the current situations caused by the current system, considerations should be made to implement a new Hotel Reservation System. This will increase the company efficiency by improving the quality of service, faster access to management information and reduction of expenditure because reservation requests won't have to be processed.

Figure7 Sequence diagram for Room Reservation System
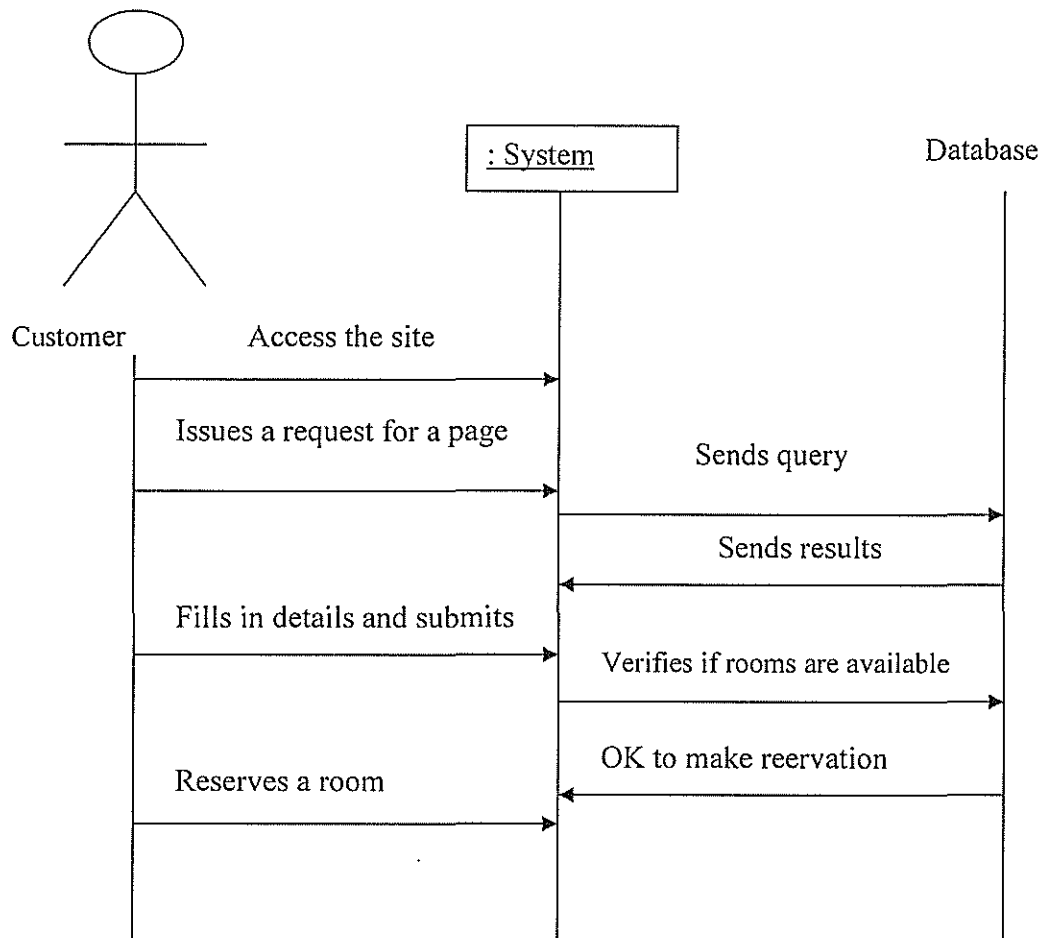
4.5 Requirements of the proposed system

Hardware requirements

The system will run on a Pentium III-IV.,2GHZ processor and above 20 GBhard drive, a resolution of 1024*768, bandwidth of 110MHZ. There should be a 52 speed CD drive for installation and for creating backup copies of the company's data. Any kind of a printer compatible with the organization's system can be used. A stabilizer or uninterruptible power supply of 220 – 240 volts and 4A for power stability and storage to keep PC working will be required, so that power losses do not lead to data loss.

Software requirements

The system will run on a windows platform 9x, 2000 or XP.and a Web browser software with Internet connection. In order for the database to run, MYSQL and WampServer should be installed in the system. A web server and webbrowser will also be used.in line with Dreamweaver 8. Antivirus software and graphical browser installation is important.

4.6 Benefits of the Proposed System

The proposed system, led to the following benefits:

Saves time of processing orders especially in cases where there are many orders.

- ✓ Save on the amount of storage space due to the electronic filing system.
- ✓ Easy backups for cases where records are damaged.
- ✓ Better methods of record retrieval through special search program that it prov
- ✓ Easy report generation.
- ✓ Better methods of calculating balances, sales and profits.
- ✓ Better and faster methods of identifying and tracing customers' details.
- ✓ Generation of consistent and accurate information on demand.
- ✓ Utilization of human resources and time
- ✓ Proper maintenance of records for future reference.
- ✓ The system is not prone to manipulation and alterations.

Chapter Five: SYSTEM IMPLEMENTATION

5.0 Introduction

System construction involves the development, installation and testing of system components. It involves actual programming which involves writing and testing new programs using a selected programming language after which the system must be tested, and implementation can then take place.

5.1 System testing

In this process, we tested the system built objectives to remove errors and to verify whether it satisfies the user requirements of the hospital. From this we derived two testing techniques include Unit-testing and System-testing.

Unit-testing

Prior to our coded data and physical design model, we tested individual forms separately and debugged where required. We made sure all the command-buttons were functioning as required, attributes and entities in the required format and their programming syntax responded to their appropriate calls as needed for example the **Home, Submit,** and **cancel** buttons were all working as expected to function when tested separately. **Submit buttons** would submit the details that had been entered by the client through a given form and the **home button** would take you back to the home page.

System testing

We had to test the whole system with its actual data to determine if discrete modules in it will function together as planned. All the unit tested actual data was brought together to form one system.

5.2 System Implementation

This is very crucial stage of the software development process. It involves turning the requirements into technological terms. Implementation includes conducting of system tests, conversion from the old system to the new system, installation of databases and training of users. The interfaces were developed by the use of PHP while the database was realized by the use of MYSQL, Wampserver 5.0.51b. In order to perfect the functionality of the system, the designers ensured every department and the process flow of business has its own entity and a corresponding a user-friendly interfaces.

5.3 User Interface
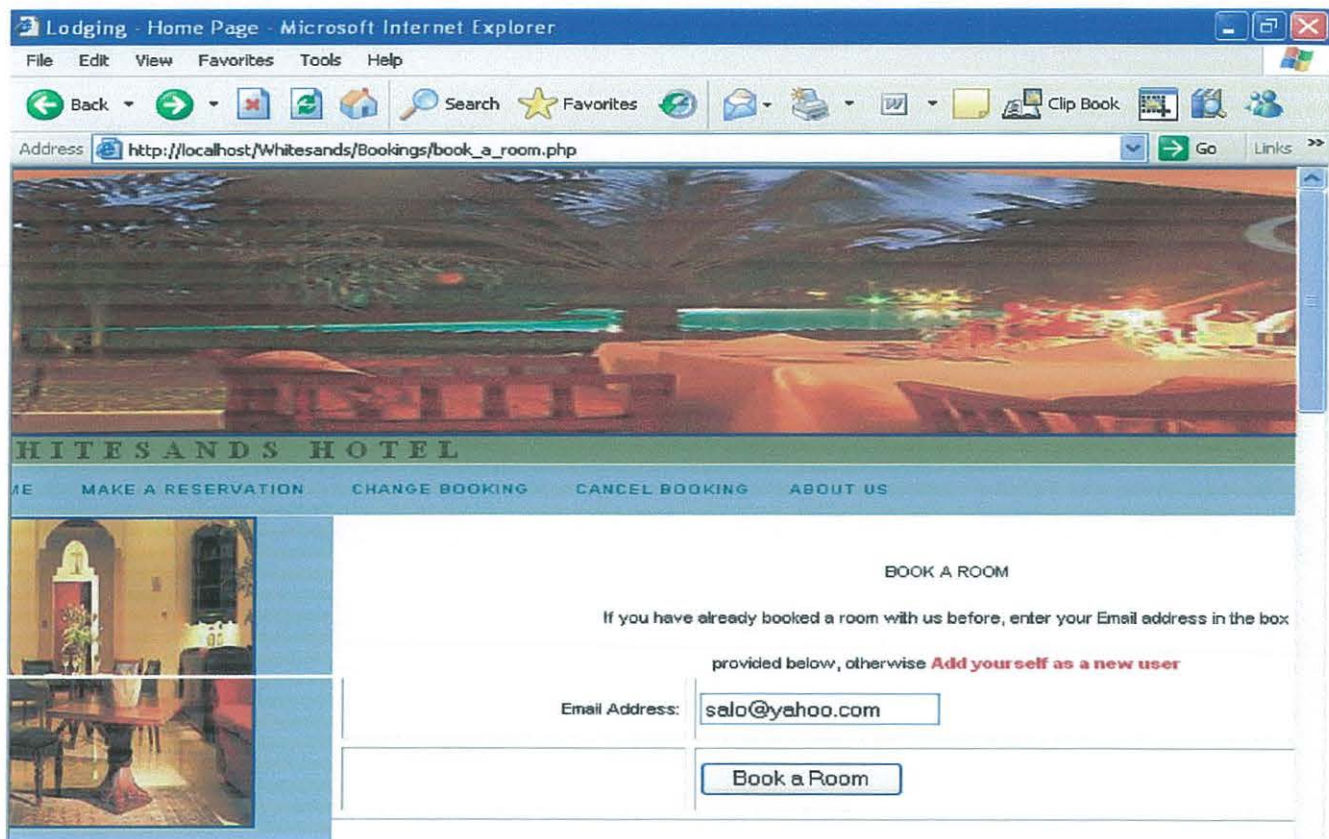
This is actually the first page the user sees when they select *"Book a Room"* from the Main menu. If the user is a new user, we have a link to the add_user_record.php page above, which allows them to enter their details. If the user has booked with The Whitesands Hotel before, we can pull their details from the database. To do this we ask them to enter their e-mail address and we use this to find their details, by searching the clients table for the e-mail address the user supplied.

This page allows the user to enter their booking details, that is, it allows him to fill in the date in which he'll arrive at the hotel and the day in which he is to leave, the type of room he wants if single or double and to indicate any special requirement and there after click on the book a room button which will insert this information into the database table, bookings.
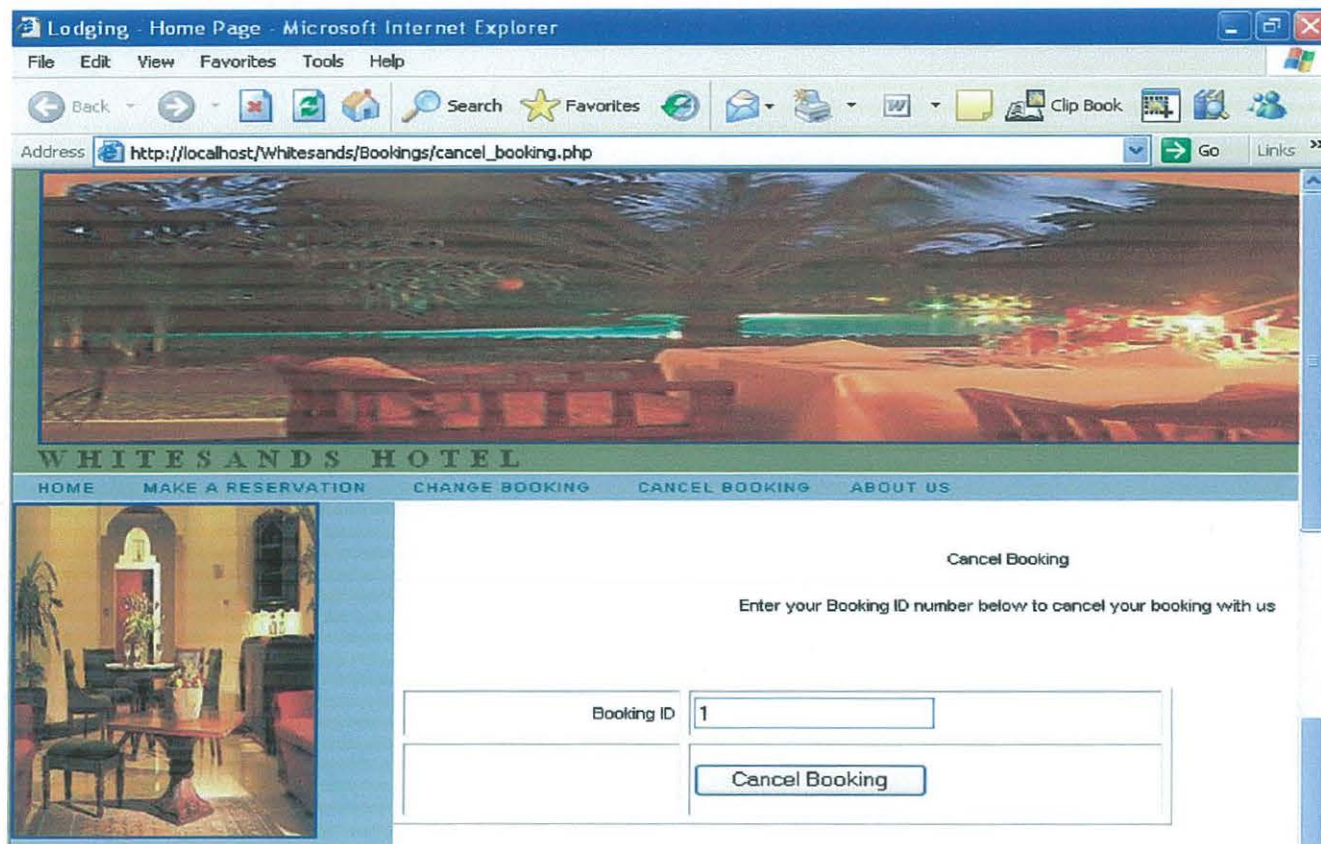
This page is to allow the user to cancel their booking. We allow the user to enter their booking number and on clicking on the cancel booking button it will delete the record.

As the name suggests, this page allows the user to add their name and address details to the database. We will insert the user's data into the clients table in the database we created earlier in the book.

5.4 System Conversion

Conversion is a process of changing from the old system to the new system. The existing data has transformed to the new database and the existing application which is to run the new database. The following conversion strategies was used

5.5 Parallel Strategy

Both the old and the new systems were run together for a time. The old one being file based system that the hotel used as means of record-keeping The file-based system had draw-backs like time wastage and unclear hand written records but they helped in comparing records on paper-based with that of the new system designed. The comparison was also made to enable the availability of records on file-based in case the new system failed, hence avoiding total record disappearance.

Chapter Six: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter has recommendations which the developers strongly feel should be put in place for effective use of the system and general running of the organization. It also talks about the general benefits or the strengths of the system once installed in the organization. Finally it has the conclusion of the entire project

6.1 Discussion

For proper functioning of the system, repair and maintenance of the system should be observed. This will be done after critical evaluation of the system. In addition user training is essential for proper use of the system. The Whitesands Hotel requires a number of different elements. First of all, there is the client-facing site that allows a customer to check the availability of rooms based on date criteria that they specify. If a room is available, then the visitor is given the opportunity to place a reservation and give their credit card details to act as a security against the booking. The customer can return at any time and view their bookings, and make amendments or cancel them as appropriate. The second part to the site is the Administration section. This allows a designated hotel representative to check bookings and manage staff user names and passwords

6.2 Conclusion

The research has been successfully completed, with support being provided by all the concerned people. The system developed if implemented will help the organization improve its services. This is because the system will make WhiteSands Hotel reliable in terms of efficiency and also management given that the Hotel Reservation System provides accommodation providers with the ability to accept online reservations and manage inventory. Guests are able to check available inventory and complete a booking online making the reservation process more efficient and less time consuming to both

parties. It also reduces cost, that is, guests confirm accommodation in real-time at the website, closing the sale immediately. Valuable reservations staff time is saved because reservation requests will no longer have to be processed. By automating your sales process, you will be able to handle the same amount of transactions, or more, at a much lower cost. Moreover you will also gain significant control over your margins and pricing strategy. Researchers worked hand in hand with the organization so that the validation from the user could help come with the right system specifications. Then the system development lifecycle was followed step by step in realizing the system.

6.3 Recommendation

Whitesands Hotel should adopt this system for efficient running of their operations. This is especially in the current age of technology where every activity in any organization should use computers. For it improve on its services and attract more clients, the following areas should be automated; booking of rooms, payment, and general operation of the organization.

The new system is able to do this and also provide periodic reports for management and decision making.

For security purposes, editing and deleting should be secured by use of passwords, this has been realized by use of granting most user less privileges which involves changing data in anyway and instead administrator privileges given to the right person. This in other words means access to the database should be in such a way that each person should be availed only the section that he/she is concerned with, not the entire database. This will prevent people from tampering with information or even trying to access information without permission. Another way of ensuring data security is by:

Back Up: at least two copies of back up files should be kept in separate locations to avoid any calamities e.g. fire break out and theft, which destroys the files.

Physical Security: this can be done by placing security guards to watch over the computer rooms, installing alarm systems in the computer rooms so that any break-ins can be detected, store CD's and Diskettes in fire proof safes, scan all internal disks and don't allow any external diskettes into the computer rooms, each user (administrator) should have a username and passwords so as to grant them access to the system

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6.3.1 Areas of further research

A replication of this study is recommended using the general population. This will provide a test of reliability of this study's findings. Further research s also needed to differentiate the determinants of repeat online hotel bookers as compared to first time bookers. These will help hoteliers to differentiate the concerns of first time bookers as compared to season travelers that might request for special needs. The findings would definitely help hoteliers to more effectively retain these online hotel bookers.

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APPENDIX 1

Questionnaire

The questionnaire below is to be filled basing on one's knowledge of the question. We please request you to fill in only what you know. It will be confidential, used for research purpose only.

1. What are the problems faced while using the current system?

----

2. What do you think should be done to address the problems mentioned above?

----

3. What are the possible measures put in place to cater for the unpredictable disasters that may damage the data in storage?

----

4. How do you ensure the confidentiality of the data in files?

....

....

5. What is the average time needed to process a transaction file before it is taken for storage?

....

....

6. How do you rate the performance of the existing system?

☐ Very good ☐ Good ☐ Fair ☐ Poor

☐ Very

Please explain why you rate it that way.

....

....

....

7. What are the reports generated at the end of each process?

----

8. How often is the data entered into the system?

☐ Daily   ☐ Weekly   ☐ Monthly

Others

Explain...

....

9. Are customers' records re-viewed always?

☐ Yes   ☐ No

APPENDIX 2

Sample Codes

Book a room

```php
<?php require_once('../Connections/coonHotel.php'); ?>
<?php
$colname_Recordset1 = "-1";
if (isset($_GET['email'])) {
  $colname_Recordset1    =    (get_magic_quotes_gpc())    ?    $_GET['email']    :
addslashes($_GET['email']);
}
mysql_select_db($database_coonHotel, $coonHotel);
$query_Recordset1 = sprintf("SELECT * FROM clients WHERE email = '%s'",
$colname_Recordset1);
$Recordset1 = mysql_query($query_Recordset1, $coonHotel) or die(mysql_error());
$row_Recordset1 = mysql_fetch_assoc($Recordset1);
$totalRows_Recordset1 = mysql_num_rows($Recordset1);
?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<!-- DW6 -->
<head>
<!-- Copyright 2005 Macromedia, Inc. All rights reserved. -->
<!-- TemplateBeginEditable name="doctitle" -->
<title>Lodging - Home Page</title>
<!-- TemplateEndEditable -->
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<link rel="stylesheet" href="../mm_lodging1.css" type="text/css" />
<style type="text/css">
<!--
.style1 {font-size: 10px}
-->
```

```
</style>
<!-- TemplateBeginEditable name="head" --><!-- TemplateEndEditable -->
</head>
<body bgcolor="#999966">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
        <tr>
        <td    width="15"    nowrap="nowrap"><img    src="../mm_spacer.gif"    alt=""
width="15" height="1" border="0" /></td>
        <td      height="60"      colspan="3"      class="logo"      nowrap="nowrap"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002.jpg" width="1072" height="192" /></a><br />
        WHITESANDS HOTEL </td>
        <td width="4"> </td>
        <td width="4"> </td>
        </tr>


        <tr bgcolor="#ffffff">
        <td    colspan="6"><img    src="../mm_spacer.gif"    alt=""    width="1"    height="1"
border="0" /></td>
        </tr>


        <tr bgcolor="#a4c2c2">
        <td width="15" nowrap="nowrap"><span class="style1"></span></td>
        <td      height="36"      colspan="3"      class="navText style1"      id="navigation"><a
href="../Home.html"
target="_parent">HOME</a>                  <a
href="../Make       A       Reservation.html"        target="_parent">MAKE        A
RESERVATION</a>  
                 <a          href="../Change          Booking.html"
target="_parent">CHANGE BOOKING </a>     
```

```
<a    href="../Cancel    Booking.html"    target="_parent">CANCEL    BOOKING
</a>     <a              href="../About            us.html"
target="_parent">ABOUT US </a> </td>
        <td width="4"> </td>
        <td width="4"> </td>
        </tr>
        <tr bgcolor="#ffffff">
        <td  colspan="6"><img  src="../mm_spacer.gif"  alt=""  width="1"  height="1"
border="0" /></td>
        </tr>
        <tr bgcolor="#ffffff">
        <td            colspan="2"          valign="top"          bgcolor="#a4c2c2"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002_0000.jpg"  alt="w"  width="180"  height="240"
/></a></td>
        <td  width="747"  valign="top"><img  src="../mm_spacer.gif"  alt=""  width="50"
height="1" border="0" />
        <p align="center"> BOOK A ROOM</p>
        <p align="center">If you have already booked a room with us before, enter your
Email address in the box </p>
        <p  align="center">provided  below,  otherwise<a  href="add_user_record.php">
Add yourself as a new user</a></p>
        <form        id="bookingform"        name="bookingform"        method="get"
action="booking_details.php">
    <table width="633" height="106" border="1" cellpadding="2" cellspacing="5">
    <tr>
    <td><div align="right">Email Address: </div></td>
    <td><label>
    <input name="email" type="text" id="email" maxlength="100" />
    </label></td>
    </tr>
```

```html
<tr>
  <td> </td>
  <td><label>
  <input type="submit" name="Submit" value="Book a Room" />
  </label></td>
  </tr>
</table>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
<p> </p>
  </form>
  <p> </p></td>
  <td width="4" valign="top"><br />
  <br /></td>
  <td width="4"> </td>
  <td width="4"> </td>
  </tr>

  <tr bgcolor="#ffffff">
  <td  colspan="6"><img  src="../mm_spacer.gif"  alt=""  width="1"  height="1"
border="0" /></td>
```

```
        </tr>

        <tr>
        <td width="15"> </td>
        <td width="323"> </td>
        <td width="747"> </td>
        <td width="4"> </td>
        <td width="4"> </td>
        <td width="4"> </td>
        </tr>
</table>
</body>
</html>
<?php
mysql_free_result($Recordset1);
?>
```

Add user Record

```php
<?php require_once('../Connections/coonHotel.php'); ?>
<?php
function   GetSQLValueString($theValue,   $theType,   $theDefinedValue   =   "",
$theNotDefinedValue = "")
{
  $theValue = (!get_magic_quotes_gpc()) ? addslashes($theValue) : $theValue;

  switch ($theType) {
    case "text":
      $theValue = ($theValue != "") ? "'" . $theValue . "'" : "NULL";
      break;
    case "long":
    case "int":
      $theValue = ($theValue != "") ? intval($theValue) : "NULL";
      break;
    case "double":
      $theValue = ($theValue != "") ? "'" . doubleval($theValue) . "'" : "NULL";
      break;
    case "date":
      $theValue = ($theValue != "") ? "'" . $theValue . "'" : "NULL";
      break;
    case "defined":
      $theValue = ($theValue != "") ? $theDefinedValue : $theNotDefinedValue;
      break;
  }
  return $theValue;
}


$editFormAction = $_SERVER['PHP_SELF'];
if (isset($_SERVER['QUERY_STRING'])) {
```

```php
$editFormAction .= "?" . htmlentities($_SERVER['QUERY_STRING']);
}


if ((isset($_POST["MM_insert"])) && ($_POST["MM_insert"] == "userform")) {
  $insertSQL = sprintf("INSERT INTO clients (title, firstName, lastName, address1,
address2, town, province, country, postCode, tel, email) VALUES (%s, %s, %s, %s, %s,
%s, %s, %s, %s, %s, %s)",
                    GetSQLValueString($_POST['title'], "text"),
                    GetSQLValueString($_POST['firstName'], "text"),
                    GetSQLValueString($_POST['lastname'], "text"),
                    GetSQLValueString($_POST['address1'], "text"),
                    GetSQLValueString($_POST['address2'], "text"),
                    GetSQLValueString($_POST['town'], "text"),
                    GetSQLValueString($_POST['province'], "text"),
                    GetSQLValueString($_POST['country'], "text"),
                    GetSQLValueString($_POST['postcode'], "text"),
                    GetSQLValueString($_POST['telephone'], "text"),
                    GetSQLValueString($_POST['email'], "text"));

  mysql_select_db($database_coonHotel, $coonHotel);
  $Result1 = mysql_query($insertSQL, $coonHotel) or die(mysql_error());
}
?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<!-- DW6 -->
<head>
<!-- Copyright 2005 Macromedia, Inc. All rights reserved. -->
<!-- TemplateBeginEditable name="doctitle" -->
<title>Lodging - Home Page</title>
<!-- TemplateEndEditable -->
```

```
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<link rel="stylesheet" href="../mm_lodging1.css" type="text/css" />
<style type="text/css">
<!--
.style1 {font-size: 10px}
-->
</style>
<!-- TemplateBeginEditable name="head" --><!-- TemplateEndEditable -->
<script type="text/JavaScript">
<!--
function MM_displayStatusMsg(msgStr) { //v1.0
  status=msgStr;
  document.MM_returnValue = true;
}


function MM_findObj(n, d) { //v4.01
  var p,i,x;  if(!d) d=document; if((p=n.indexOf("?"))>0&&parent.frames.length) {
    d=parent.frames[n.substring(p+1)].document; n=n.substring(0,p);}
  if(!(x=d[n])&&d.all) x=d.all[n]; for (i=0;!x&&i<d.forms.length;i++) x=d.forms[i][n];
  for(i=0;!x&&d.layers&&i<d.layers.length;i++)
x=MM_findObj(n,d.layers[i].document);
  if(!x && d.getElementById) x=d.getElementById(n); return x;
}


function MM_validateForm() { //v4.0
  var i,p,q,nm,test,num,min,max,errors='',args=MM_validateForm.arguments;
  for (i=0; i<(args.length-2); i+=3) { test=args[i+2]; val=MM_findObj(args[i]);
    if (val) { nm=val.name; if ((val=val.value)!="") {
      if (test.indexOf('isEmail')!=-1) { p=val.indexOf('@');
        if (p<1 || p==(val.length-1)) errors+='- '+nm+' must contain an e-mail address.\n';
      } else if (test!='R') { num = parseFloat(val);
```

```
if (isNaN(val)) errors+='- '+nm+' must contain a number.\n';
if (test.indexOf('inRange') != -1) { p=test.indexOf(':');
    min=test.substring(8,p); max=test.substring(p+1);
    if (num<min || max<num) errors+='- '+nm+' must contain a number between
'+min+' and '+max+'.\n';
    } } } else if (test.charAt(0) == 'R') errors += '- '+nm+' is required.\n'; }
} if (errors) alert('The following error(s) occurred:\n'+errors);
document.MM_returnValue = (errors == '');
}
//-->
</script>
</head>
<body bgcolor="#999966">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
    <tr>
    <td    width="15"    nowrap="nowrap"><img    src="../mm_spacer.gif"    alt=""
width="15" height="1" border="0" /></td>
    <td    height="60"    colspan="3"    class="logo"    nowrap="nowrap"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002.jpg" width="1071" height="192" /></a><br />
    WHITESANDS HOTEL </td>
    <td width="4"> </td>
    <td width="4"> </td>
    </tr>

    <tr bgcolor="#ffffff">
    <td    colspan="6"><img    src="../mm_spacer.gif"    alt=""    width="1"    height="1"
border="0" /></td>
    </tr>

    <tr bgcolor="#a4c2c2">
```

```html
<td width="15" nowrap="nowrap"><span class="style1"></span></td>
<td height="36" colspan="3" class="navText style1" id="navigation"><a
href="../Home.html"
target="_parent">HOME</a>                <a
href="../Make     A      Reservation.html"     target="_parent">MAKE     A
RESERVATION</a>  
                <a          href="../Change          Booking.html"
target="_parent">CHANGE BOOKING </a>     
   <a    href="../Cancel    Booking.html"   target="_parent">CANCEL    BOOKING
</a>     <a              href="../About              us.html"
target="_parent">ABOUT US </a></td>
<td width="4"> </td>
<td width="4"> </td>
</tr>


<tr bgcolor="#ffffff">
<td colspan="6"><img src="../mm_spacer.gif" alt="" width="1" height="1"
border="0" /></td>
</tr>


<tr bgcolor="#ffffff">
<td          colspan="2"          valign="top"          bgcolor="#a4c2c2"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002_0000.jpg"    alt="w"    width="180"    height="240"
/></a></td>
<td width="747" valign="top"><img src="../mm_spacer.gif" alt="" width="50"
height="1" border="0" />
   <p align="center">Add a User Record </p>
   <p align="center">Fill in the form below, with your name and address
details,</p>
   <p align="center"> to add your record to our system </p>
```

```html
<form id="userform" name="userform" method="POST" action="<?php echo
$editFormAction; ?>">
    <p> </p>
    <table width="614" border="1" cellspacing="5" cellpadding="2">
      <tr>
        <td width="220"><div align="right">Title</div></td>
        <td width="365"><label>
          <select name="title" id="title" onfocus="MM_displayStatusMsg('Please enter
your title');return document.MM_returnValue">
            <option value="Mr">Mr</option>
            <option value="Mrs">Mrs</option>
            <option value="Ms">Ms</option>
            <option value="Dr">Dr</option>
          </select>
        </label></td>
      </tr>
      <tr>
        <td><div align="right">First Name </div></td>
        <td><label>
          <input          name="firstName"          type="text"          id="firstName"
onfocus="MM_displayStatusMsg('Please     enter     your     first     name');return
document.MM_returnValue" maxlength="30" />
        </label></td>
      </tr>
      <tr>
        <td><div align="right">Surname</div></td>
        <td><label>
          <input          name="lastname"          type="text"          id="lastname"
onfocus="MM_displayStatusMsg('Please          enter     your     lastname');return
document.MM_returnValue" maxlength="30" />
        </label></td>
```

```
      </tr>
      <tr>
        <td><div align="right">Address1 </div></td>
        <td><label>
          <input          name="address1"          type="text"          id="address1"
onfocus="MM_displayStatusMsg('Please     enter     your     firt     address');return
document.MM_returnValue" maxlength="100" />
        </label></td>
      </tr>
      <tr>
        <td><div align="right">Address2 </div></td>
        <td><label>          <input    name="address2"    type="text"    id="address2"
onfocus="MM_displayStatusMsg('Please     enter     your     second     address');return
document.MM_returnValue" maxlength="100" />
        </label></td>
      </tr>
      <tr>
        <td><div align="right">Town</div></td>
        <td><label>
          <input          name="town"          type="text"          id="town"
onfocus="MM_displayStatusMsg('Please     enter     the     name     of     your     town');return
document.MM_returnValue" maxlength="100" />
        </label></td>
      </tr>
      <tr>
        <td><div align="right">County/State</div></td>
        <td><label>
          <input          name="province"          type="text"          id="province"
onfocus="MM_displayStatusMsg('Please     enter     the     name     of     your     province');return
document.MM_returnValue" maxlength="100" />
        </label></td>
```

```
        </tr>
        <tr>
         <td><div align="right">Country</div></td>
         <td><label>
           <select name="country" id="country" onfocus="MM_displayStatusMsg('Please
enter the name of your country');return document.MM_returnValue">
             <option value="England">England</option>
             <option value="United States">United States</option>
             <option value="Kenya">Kenya</option>
             <option value="Uganda">Uganda</option>
             <option value="Tanzania">Tanzania</option>
             <option value="France">France</option>
           </select>
          </label></td>
        </tr>
        <tr>
         <td><div align="right">Postcode</div></td>
         <td><label>
           <input          name="postcode"          type="text"          id="postcode"
onfocus="MM_displayStatusMsg('Please          enter          your          postcode');return
document.MM_returnValue" maxlength="20" />
          </label></td>
        </tr>
        <tr>
         <td><div align="right">Telephone</div></td>
         <td><label>
           <input         name="telephone"         type="text"         id="telephone"
onfocus="MM_displayStatusMsg('Please          enter          your          telephone
number');MM_displayStatusMsg('Please      enter      your      telephone      number');return
document.MM_returnValue" maxlength="20" />
          </label></td>
```

```
    </tr>
    <tr>
     <td><div align="right">Email</div></td>
     <td><label>
      <input            name="email"         type="text"          id="email"
onfocus="MM_displayStatusMsg('Please    enter    your    email    address');return
document.MM_returnValue" maxlength="100" />
     </label></td>
    </tr>
    <tr>
     <td> </td>
     <td> </td>
    </tr>
    <tr>
     <td> </td>
     <td><label>
      <input   name="Add   my   Details"   type="submit"   id="Add   my   Details"
onclick="MM_validateForm('firstName','','R','lastname','','R','address1','','R','town','','R','pr
ovince','','R','postcode','','R','telephone','','R','email','','RisEmail');return
document.MM_returnValue" value="Add my Details" />
     </label></td>
    </tr>
   </table>
   <p> </p>
      <input type="hidden" name="MM_insert" value="userform">
     </form>
     <p> </p></td>
    <td width="4" valign="top"><br />
    <br /></td>
    <td width="4"> </td>
    <td width="4"> </td>
```

```
        </tr>

        <tr bgcolor="#ffffff">
        <td   colspan="6"><img   src="../mm_spacer.gif"   alt=""   width="1"   height="1"
border="0" /></td>
        </tr>
        <tr>
        <td width="15"> </td>
        <td width="323"> </td>
        <td width="747"> </td>
        <td width="4"> </td>
        <td width="4"> </td>
        <td width="4"> </td>
</tr>
</table>
</body>
</html>
```

Cancel Booking

```php
<?php require_once('../Connections/coonHotel.php'); ?>
<?php
function GetSQLValueString($theValue, $theType, $theDefinedValue = "",
$theNotDefinedValue = "")
{
  $theValue = (!get_magic_quotes_gpc()) ? addslashes($theValue) : $theValue;
  switch ($theType) {
    case "text":
      $theValue = ($theValue != "") ? "'" . $theValue . "'" : "NULL";
      break;
    case "long":
    case "int":
      $theValue = ($theValue != "") ? intval($theValue) : "NULL";
      break;
    case "double":
      $theValue = ($theValue != "") ? "'" . doubleval($theValue) . "'" : "NULL";
      break;
    case "date":
      $theValue = ($theValue != "") ? "'" . $theValue . "'" : "NULL";
      break;
    case "defined":
      $theValue = ($theValue != "") ? $theDefinedValue : $theNotDefinedValue;
      break;
  }
  return $theValue;
}


if ((isset($_GET['bookingID'])) && ($_GET['bookingID'] != "")) {
$deleteSQL = sprintf("DELETE FROM bookings WHERE ID=%s",
            GetSQLValueString($_GET['bookingID'], "int"));
```

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```
mysql_select_db($database_coonHotel, $coonHotel);
$Result1 = mysql_query($deleteSQL, $coonHotel) or die(mysql_error());


$deleteGoTo = "booking_cancelled.php?bookingID=".$HTTP_POST_VARS['ID'].'"';
if (isset($_SERVER['QUERY_STRING'])) {
  $deleteGoTo .= (strpos($deleteGoTo, '?')) ? "&" : "?";
  $deleteGoTo .= $_SERVER['QUERY_STRING'];
}
  header(sprintf("Location: %s", $deleteGoTo));
}
?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<!-- DW6 -->
<head>
<!-- Copyright 2005 Macromedia, Inc. All rights reserved. -->
<!-- TemplateBeginEditable name="doctitle" -->
<title>Lodging - Home Page</title>
<!-- TemplateEndEditable -->
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<link rel="stylesheet" href="../mm_lodging1.css" type="text/css" />
<style type="text/css">
<!--
.style1 {font-size: 10px}
-->
</style>
<!-- TemplateBeginEditable name="head" --><!-- TemplateEndEditable -->
</head>
<body bgcolor="#999966">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
```

```
<tr>
<td    width="15"    nowrap="nowrap"><img    src="../mm_spacer.gif"    alt=""
width="15" height="1" border="0" /></td>
<td    height="60"    colspan="3"    class="logo"    nowrap="nowrap"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002.jpg" width="1071" height="192" /></a><br />
WHITESANDS HOTEL </td>
<td width="4"> </td>
<td width="4"> </td>
</tr>
<tr bgcolor="#ffffff">
<td    colspan="6"><img    src="../mm_spacer.gif"    alt=""    width="1"    height="1"
border="0" /></td>
</tr>


<tr bgcolor="#a4c2c2">
<td width="15" nowrap="nowrap"><span class="style1"></span></td>
<td    height="19"    colspan="3"    class="navText    style1"    id="navigation"><a
href="../Home.html"
target="_parent">HOME</a>                      <a
href="../Make      A      Reservation.html"      target="_parent">MAKE      A
RESERVATION</a>  
                 <a          href="../Change          Booking.html"
target="_parent">CHANGE BOOKING </a>     
    <a    href="../Cancel    Booking.html"    target="_parent">CANCEL    BOOKING
</a>     <a          href="../About          us.html"
target="_parent">ABOUT US </a> </td>
<td width="4"> </td>
<td width="4"> </td>
</tr>
<tr bgcolor="#ffffff">
```

```
<td   colspan="6"><img   src="../mm_spacer.gif"   alt=""   width="1"   height="1"
border="0" /></td>
    </tr>
    <tr bgcolor="#ffffff">
    <td          colspan="2"          valign="top"          bgcolor="#a4c2c2"><a
href="http://www.shoortravel.com/whitesands.html#1#1"><img
src="../images/Trial_clip_image002_0000.jpg"   alt="w"   width="180"   height="240"
/></a></td>
    <td width="747" valign="top"><img src="../mm_spacer.gif" alt="" width="50"
height="1" border="0" />
    <p align="center">Cancel Booking</p>
    <p align="center">Enter your Booking ID number below to cancel your booking
with us </p>
    <form      id="deletebooking"  ·    name="deletebooking"      method="post"
action="booking_cancelled.php">
    <p> </p>
    <table    width="473"    height="102"    border="1"    cellpadding="2"
cellspacing="5">
    <tr>
    <td width="172"><div align="right">Booking ID </div></td>
    <td width="294"><label>
    <input name="bookingID" type="text" id="bookingID" />
    </label></td>
    </tr>
    <tr>
    <td height="42"> </td>
    <td><label>
    <input type="submit" name="Submit" value="Cancel Booking" />
    </label></td>
    </tr>
    </table>
```

```html
<p> </p>
    <p> </p>
    <p> </p>
    <p> </p>
  </form>
  <p> </p></td>
<td width="4" valign="top"><br />
<br /></td>
<td width="4"> </td>
<td width="4"> </td>
</tr>


<tr bgcolor="#ffffff">
<td colspan="6"><img src="../mm_spacer.gif" alt="" width="1" height="1" border="0" /></td>
</tr>
<tr>
<td width="15"> </td>
<td width="323"> </td>
<td width="747"> </td>
<td width="4"> </td>
<td width="4"> </td>
<td width="4"> </td>
</tr>
</table>
</body>
</html>
```