**LIMMAN’S HOTEL RESERVATION SYSTEM**

A Research / Capstone Project

Presented to the Faculty of the

Information Computer Technology  
College of Arts and Sciences of Asia and the Pacific

In Partial Fulfillment of the Requirements

For the degree Bachelor of Science in Computer Science

By

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**Dedication**

We dedicate this project to God Almighty Our creator, Our strong pillar, Our source of inspiration, wisdom, knowledge and understanding. He has been the source of our strength throughout this program, for giving us Hope in times that we feel like giving up.

To our parents for their undying support. To our teachers for the knowledge and wisdom that they shared to us. We also dedicate the success of this study to our friends who has encouraged us all the way to make sure that this study will be successful. Thank you and God bless!

**Acknowledgement**

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**CHAPTER I**

**INTRODUCTION**

**Project Context**

### A Hotel is an establishment that provides paid lodging on a short-term basis. The provision of basic accommodation, in times past, consisting only of a room with a bed, a cupboard, a small table and a washstand has largely been replaced by rooms with modern facilities, including bathrooms and air conditioning or climate control. The cost and quality of hotels are usually indicative of the range and type of services available. Due to the enormous increase in tourism, especially those of smaller establishments have improved.

### There are some Hotels that the names of their customers are manually listed in the Book. Check-in and Check out are also recorded as manual. The staff is incharge of the names listed and there’s a possibility of human error while listing the names. Limman’s Reservation System will provide an easy way on how to Book the names of the customer online without any error by choosing the best and comfortable rooms. The website which deals with easy online reservation where in customers can easily get room in the hotel by the use of Internet the User can save so much time for reservation.

Limman’s Hotel provide goods and services using computer system. It helps to perform task in an easy way with less time consumed. The advent of new technology gave rise to easy and hassle free interaction between and among humans. Whether it is in whatever task a person takes on the quality and speed of carrying it out are enhanced. Today, many systems have used an automation process like using computer system, due to the efficient and accuracy. Limman’s Hotel Reservation System is a transaction processing system. In this system there are more advantages rather than a manual Hotel Reservation.

**Project Purpose and Description of the Study**

The current manual system uses paperwork and direct human language communication by mouth to manage the Hotel. And it delays information transmission in the Hotel. Booking is done through phone calls or through visit to the hotel booking office. 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, checked in the guest is given the key to his allocated room, he also specified if he needs room service.

Limman’s is a Hotel reservation that currently using manual system on their business transaction such as booking, purchasing and payment. The guest’s personal details such as Name, Age, Nationality and duration of stay. All this process is time consuming. Upon analyzing the researcher concluded that Hotel Reservation System is big help to the business especially in booking and choosing the best and comfortable rooms easily.

**Objective of the Study**

**General Objectives**

* How to develop and implement a computerized Reservation System.
* To provide an Online Hotel Reservation System for Limman’s Hotel that will offer an easy way to book their names online.

**Specific Objectives**

* Easy Booking
* By doing the reservation, To provide website for the sufficient need of the guest’s to book online through internet.
* Reduce errors
* Through this system, provide security to avoid human errors while listing the names of the guest’s.
* Less Time Consumed
* To provide an interactive system in a fastest way.

**Scope and Limitation**

**Scope**

* Security
* The system has a capability to detect consecutive times of entering an invalid username and password combination.
* Booking
* The Client will have the ability to manage and choose the rooms they need and will allow them to set the date and time depending on its availability.
* Keeping the Record
* The system has a capability to keep records of their client/guest’s past, current and upcoming reservation of events and rooms.

**Limitation**

* Can show all information about Hotel rooms and facilities.
* To be able to know if the rooms are available or not.
* An online transaction.

**DEFINITION OF TERMS**

The following terms are defined operationally and conceptually for better understanding:

**1. Reservation –** The term ‘reservation’ used in the context of a hotel, means the booking or reserving of a room (accommodation) by a guest. Reservation leads to reserving of a particular type of room for a particular guest for a given period of time. It also gives the first impression of the Hotel. The action of reserving something, an arrangement (such as a room, table, or seat).

### 2. Admin - Administrator or reception manager.

Operationally, can access and manage the system, and responsible for the reception of the guest. It also can add, delete and edit the facilities..

3. **Home -** A shelter that is the usual residence of a person, family, or household.

Operationally, refers to the foreseen all the activities happening in the system.

4. **User-** A person who uses or operates something, especially a computer or other machine. Someone who employs or uses a particular thing.

Operationally, the one who are registered can log in and use this system.

**CHAPTER II**

**REVIEW OF RELATED LITERATURE AND STUDIES**

**2.1 Review of Related Literature**

The researchers have chosen these literatures and studies for it has significant relations to the proposed study.

**2.1.1 Foreign Literature**

**UML Hotel Reservation System**

Louw, Door Janne

(May 10, 2016***)***

This system allows the guests to do their booking through call. Some of task that the system can do are providing a query for arriving date and the length of staying, providing the number of On rooms, view all available rooms and provides user the ability to choose one or more of them, recording the numbers of On rooms, view all available rooms and provides the user the ability to choose one or more of them, recording kind of guests and how many going to be in the single room, providing the cost of booking, final confirmation with the detail of booking and the guests can review or cancel the booking. The user can go to the next page by three ways. The first one is the user after inserting his/her information goes through pages in sequence way. The second way by navigation and this way provide the user the ability to go to the previous pages to login page. The final one is one user insert unaccepted the page will keep the recent page.

**Local Literature**

**658, Apartelle Offline Reservation**

Bituin Abi

(August 2016***)***

Short term base lodging is the main reason that a hotel has been established. In the Philippines, where in many foreign people go and have a vacation, hotel is always their first destination to have relaxation after long hours of travel in an airplane. Because of the rapid increase of foreigners visiting the Philippines for a vacation. The current problem observed is the manual guest list records, the manual reservation of guests, the manual booking of rooms for the guests which takes a long time to accomplish. According to the manager in the establishment, because they keep on doing their job manually, it resulted to a very messy office, lots of proposing a system that is a relevant to the needs of the establishment, highly efficient to meet their needs and most of all simple, easy to use system.

**Foreign Related Studies**

**Online Hotel Reservation System**

Richard Bemile, Akwasi KYERE Achampong, Emmanuel Danquah

(November 2014)

The Hotel industry is a business venture for the owner and a solace for the traveller and/or tourist. A costumer can get stranded in the quest to secure a hotel room to pass the night if he has not made adequate plans by the existing of the system. Through this study it was realized that for a costumer to be guaranteed a room. He or She has to physically come to the Hotel since the attendance paid more attention. He could also send a friend or relative who lives around the neighbourhood of the hotel to do the booking for him. There is nothing to bond the hotel and the costumer in person that he has indeed booked for a room. This study took Hansonic hotel as its case. It looked at creating an online reservation system to enable customers choose the room they wanted after a virtual tour to guarantee him a room.

**Local Related Studies**

**Lan-Based Reservation System for Hacienda Gracia Resort and Hotel**

Lagman

(September 2012***)***

A resort is a place use for relaxation or recreation, where visitors are being attracted to take their holiday or vacation. It refers to places, towns or sometimes commercial establishments operated by a single company. On the other hand, a hotel is differentiated as an establishment that provides paid lodging on a short term basis. Computer Programmers are continuously developing a system application to better serve resort or hotel guests because some hotels and resorts are becoming fully automated.

The researchers introduce a “LAN-Based Reservation with Billing System for Hacienda Gracia Resort and Hotel” to improve its reservation and billing system. The advent of new technology gave rise to easy and hassle-free interaction between and among humans. This is why most hotel and resorts prefer to employ computerization in their business.

As a conclusion, their system is a lan-based system so we generate their system a online system for some to organize and developed system is appeared to be more attractive, efficient, and dynamic.

**Foreign Literature and Local Literature Synthesis**

The Foreign and local literature mentioned above are related to our proposed system in terms of using Computerized Reservation System. The system can keep records past or current event. Fastest and easy to access by the client. It is also time consuming and the client can choose the best and comfortable rooms, Foreign Literature explain that Hotel reservation system allows the client to do their booking through call they can also check the availability of the rooms, the cost of every stay. Final confirmation with the detail of booking and the guests can review and cancel the booking.

While the Local Literature explain that the current problem observed is the manual guests records. The manual reservation of guests, the manual booking of rooms for the guests, which takes a long time to accomplish. Therefore we make a system so that the costumer easily to reserved or book the best and comfortable rooms.

**Foreign Studies and Local Studies Synthesis**

Foreign and Local Studies are focusing on how they can serve their guests effectively and to lessen the burden. By using essential qualities of customer satisfaction, and fulfillment. Foreign Studies create an online reservation system to enable costumers choose the best and comfortable rooms they wanted with a virtual tour to guarantee him/her a room. And it far more better than a manual reservation, it less hussle and much easy.

While Local Studies are continuously developing a system application to better serve resort or hotel guests, to improve its reservation and billing system. The advent of this technology gave rise to easy and hassle-free interaction between and among humans. Much prefer to employ computerization in their business to appeared more attractive, efficient and dynamic.

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**CHAPTER III**

**TECHNICAL BACKGROUND**

Hotel Reservation System (HRS) minimum and maximum requirements and specifications are given at this chapter.

**Software Specification**

The following software’s are recommended in the use of the study.

* HTML

Short for Hypertext Markup Language, the authoring language used to create documents on the Word Wide Web HTML is similar to SGML, although it is not a strict subset. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. The correct structure for an HTML document starts with <HTML><HEAD> (enter here what document is about) <BODY> and ends with </BODY></HTML>. All the information you’d like to include in your Web page fits in between the <BODY> and </BODY>tags.

* CSS

Short for Cascading Style Sheets, a new feature being added to HTML that gives both Web site developers and users more control over how pages are displayed. With CSS, designers and users can create style sheets that define how different elements, such as headers and links, appear. These style sheets can then be applied to any Web page. The term cascading derives from the fact that multiple style sheets can be applied to the same Web page.

* PHP

Self-referentially short for PHP: Hypertext Preprocessor, an [open source](http://www.webopedia.com/TERM/O/open_source.html), [server-side](http://www.webopedia.com/TERM/S/server_side.html), [HTML](http://www.webopedia.com/TERM/H/HTML.html) embedded scripting language used to create dynamic [Web pages](http://www.webopedia.com/TERM/W/web_page.html). In an HTML document, PHP script (similar [syntax](http://www.webopedia.com/TERM/S/syntax.html) to that of [Perl](http://www.webopedia.com/TERM/P/Perl.html) or [C](http://www.webopedia.com/TERM/C/C.html) ) is enclosed within special PHP tags. Because PHP is embedded within tags, the author can jump between HTML and PHP (similar to [ASP](http://www.webopedia.com/TERM/A/Active_Server_Pages.html) and [Cold Fusion](http://www.webopedia.com/TERM/C/Cold_Fusion.html)) instead of having to rely on heavy amounts of code to output HTML. And, because PHP is executed on the server, the [client](http://www.webopedia.com/TERM/C/client.html) cannot view the PHP code. PHP can perform any task that any CGI program can do, but its strength lies in its compatibility with many types of databases. Also, PHP can talk across networks using [IMAP](http://www.webopedia.com/TERM/I/IMAP.html), [SNMP](http://www.webopedia.com/TERM/S/SNMP.html), [NNTP](http://www.webopedia.com/TERM/N/NNTP.html), POP3, or [HTTP](http://www.webopedia.com/TERM/H/HTTP.html).

* XAMPP

XAMPP is an open-source web server package that works on various platforms. It is actually an acronym with X meaning “cross” platform, A for Apache HTTP server, M for MySQL, P for PHP, and P for Perl. XAMPP was designed to help webpage developers, programmers, and designers check and review their work using their computers even without connection to the web or internet. So, basically XAMPP may be used to [stand](http://www.qwhatis.com/what-does-hvac-stand-for/) as pages for the [internet](http://www.qwhatis.com/what-is-internet/) even without connection to it.

**Hardware specification**

The following hardware’s are recommended in the use of the study.

* CPU

Pronounced as separate letters, CPU is the abbreviation for central processing unit. Sometimes referred to simply as the central processor, but more commonly called [processor](http://www.webopedia.com/TERM/P/processor.html), the CPU is the brains of the [computer](http://www.webopedia.com/TERM/C/computer.html) where most calculations take place. In terms of computing power, the CPU is the most important element of a [computer system](http://www.webopedia.com/TERM/C/computer_system.html).

* Keyboard

External [input device](http://www.businessdictionary.com/definition/input-device.html) used to type [data](http://www.businessdictionary.com/definition/data.html) into some sort of [computer system](http://www.businessdictionary.com/definition/computer-system.html) whether it is a mobile device, a personal computer, or another electronic machine. A keyboard usually includes alphabetic, numerical, and common symbols used in everyday transcription. Keyboards for [personal computers](http://www.businessdictionary.com/definition/personal-computer-PC.html) are connected to the machine through serial or USB [plugs](http://www.businessdictionary.com/definition/plug.html).

* Mouse

The mouse is one of the primary [input devices](http://www.techterms.com/definition/inputdevice) used with today's computers. The name comes from the small shape of the mouse, which you can move quickly back and forth on the mouse pad, and the cord, which represents the mouse's tail.

* Monitor

Alternatively referred to as a video display terminal (VDT) and video display unit (VDU), a monitor are a video display screen and the hard shell that holds it. In its most common usage, monitor refers only to devices that contain no electronic equipment other than what is essentially needed to display and adjust the characteristics of an image.

**Program Specification**

Hotel Reservation System is divided into 3 categories; Admin, cashier, and the User. Each category has its own function. The Hotel Reservation System functionality focused on booking and reservation of hotel rooms, Check In and Check Out of the guests, and to know the availability of the hotel rooms.

**Testing Plan**

A testing plan is a systematic and methodological approach to testing a system. It can be effective in finding errors and flaws in system.

The proponents will use the following testing method:

**Functionality Testing**

Functionality testing is performed to verify that a software application performs and functions correctly according to design specifications. During functionality testing we check the core application functions, text input, menu functions and installation and setup on localized machines.

**Scope**

The scope of the study is the costumers can easily book a room or plan an event

Through online giving them more easy way and hassle-free reservation, with a user

friendly interface. As for booking/planning an event, user will have the ability to manage

and choose the rooms they need and allow them to set the date and time depending on

it’s availability.

Table 3.1 Features.

Below are the features of the system and their meaning or definition.

|  |  |
| --- | --- |
| **Feature ID** | **Name/ Description** |
| 1 | ADMIN ACCOUNTS  -An account for the administrator so that he/she can edit, add, delete and update the rooms. |
| 2 | FRONTDESK/CASHIER ACCOUNTS  -A verified account set as default for the user so that he/she can only book rooms. And share it with the registered user. |
| 3 | GUESTS  -An account as a user that can check in and check the availability of rooms, to check and choose the best and comfortable rooms. |
| 4 | DETAILS OF ROOMS  -To provide amount of rooms and quantity of rooms to users and registered users. |

1. **Acceptance Testing**

A testing technique performed to determine whether or not the software system has met the requirement specifications. The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it is has met the required criteria for delivery to end users.

1. **Load Testing**

Load testing is the process of putting demand on a system or device and measuring its response. Load testing is performed to determine a system’s behavior under both normal and anticipated peak load conditions. It helps to identify the maximum operating capacity of an application as well as any bottlenecks and determine which element is causing degradation. When the load placed on the system is raised beyond normal usage patterns, in order to test the system's response at unusually high or peak loads, it is known as stress testing. The load is usually so great that error conditions are the expected result, although no clear boundary exists when an activity ceases to be a load test and becomes a stress test.

1. **Evaluation procedure**

It is given our testing involves significant from our users. We work with our user’s right from the requirement stage to effectively participate and manage the user acceptance process. The following formula was used to measure user acceptance of the system. The rating used below will also show the acceptability of the system.

**Formula:**

**Mean = ∑FX**

**N**

**Rating:**

**5 – Excellent**

**4 – Very good**

**3 – Good**

**2 – Fair**

**1 - Poor**

**CHAPTER IV**

**METHODOLOGY**

### The proponents used the php development process as a project development method in creating the Hotel Reservation System. This method was used throughout the development of the system and provides efficiency and consistency of the task. This stage is design to refine the project with amount of attention to the customer/clients needs and preference. The first process of the model is data gathering. Here we gather information about basic hotel system functionalities.

We ask about their expectation in online hotel reservation system and some of them had a hotel reservation system but they want some improvements they would have wanted to add in the system such as implementing an attribute information.

After gathering all the information form customers/clients can proceed with the next step which is analyzing of data and problem solving and after adding all the requires components, proceed to the final step which is system debugging that both individual components and the integrated whole are methodically verified to ensure that it is error-free and fully meet the requirements.

**Hotel Reservation System Organizational Chart**

GUESTS

CASHIER

ADMIN

**Hotel Reservation System Context Diagram**

Admin

Check the availability of the rooms and all the facilities and details.

Can edit, delete, and update

Cashier

Manage

The Booking

Rooms and facilities

Log in to the system

Guests

**DATA FLOW**

Hotel Website

Log In

Filling out a registration form to reserve room in advance.

Search

Check Available Rooms

Available rooms that is not occupied by the other customer and by choosing the best and comfortable rooms.

Guaranteed confirmation to the customers after choosing the room

Confirm Booking

Store Information

The information has been added

**Hotel Reservation System Conceptual Framework**

Inputs Process Output

Gantt chart

Data flow diagram

Context diagram

Perform Functional test

Perform Acceptance System

Perform Load Testing

Hotel Reservation System

System Layout

Software specs

Hardware specs

System Features

The Hotel Reservation System serves as its backbone in order to process the logic behind the website. The Process shows how Hotel Reservation System works and its limitations.

The Specs or the software specs of the website serves as the requirements for this website to function. The specs of HRS are the programming languages and web design tools the researchers have used.

**Hotel Reservation System Decomposition Chart**

Log in

Log in

Cashier

Guests

Admin

Hotel Reservation System

Reservation of rooms

View Home page

Manage the Booking

Can add, delete and update the rooms and facilities

Can also view and update the rooms.

Can check the validity of rooms

Can view reports