Database normalization and hotel reservation website essay sample



#### 1 Introduction

Technology has transformed many aspects of life in this generation, including the way many of us make reservations. Traditional ways of reserving through telephones, cellular phones and walk-in can't cope up the with other customers who have a busy schedule that are in need of faster way to reserve and pay. In this matter, it is in higher advantage to develop a fully functional website which provides online reservation. The benefits of such system are as follows: it can gain international exposure and also be an effective online brochure that is available to everyone in the world; it can also expand target market, leading to increased occupancy levels. Increase profits, stay competitive, control tour marketing.

#### 1. Statement of the Problem

The Grand Astoria hotel is suffering with slow procedure on indirect reservations with insufficient data given by the guest when reserving through phone calls and emails. Also, it has no assurance that the guest will surely pay through credit. They have no views of information of different rooms and facilities found in the establishment.

# 2. Current State of the Technology

The emerging need of high quality based technology is a must in different industries including the tourist attraction spot such as hotels. In the case of Grand Astoria Hotel, the expansion of customer reach is low because they are not provided with a website that connects to other potential customers internationally. The current state of their technology when reserving are as

follows: 1. ask details check in and check out time; 2. information about the guest; 3. choose what kind of room; 4. check if it is available; 5. if the room is unavailable, check for other rooms that is available; 6. reserve and confirm the reservation to occupy.

### 3. General Problem

The main problem of this study is the inaccurate reservation of the customer.

- 1. Specific Problem
- 1. Low in security
- 2. Less data integrity
- 3. Time monitoring
- 4. Difficulty in searching and retrieving files
- 5. Possible loss of records and retrieving files
- 6. Difficulty in finding the availability of rooms and facilities
- 7. Lack of Generating Reports
- 4. General Objectives

The study aims to solve the problem that the hotel encountering and to change their way of reservation in their system.

### 1. Specific Objectives

- 1. To increase security between management and staff
- 2. Highly integrate data
- 3. To lessen time consume
- 4. To spend less time in searching and retrieving of files
- 5. To create a backup files in every successful transaction
- 6. To become easier to find the availability of rooms and facilities.
- 7. Provide generating reports
- 5. Scope and Limitations

The scope of the study only covers the transaction of reservation of rooms and facilities that can hotel give to the customer.

Hotel Reservation System is fully scalable and designed to provide extensive flexibility and varied choices. Typical hotel reservation and ecommerce hotel system software reservation solutions currently in place and available today are technically designed to achieve only one objective function, which is to connect buyer to seller.

Chapter 2

THEORETRICAL FRAMEWORK

2. 1 Introduction

The proponents proposed a hotel reservation website with which is the Grand Astoria Hotel Reservation Website with standalone system is easier to use and a secured database to reduce data redundancy.

#### 2. 2 Database

The proponents used a database that serves as a collection of organized information of the reservation details that can easily be accessed, managed, and updated with the usage of MySql relational database management system.

### 2. 3 Normalization Theory

The normalization theory provided a great advantage to the proponents due to its process of organizing the fields and tables of relational database to minimize redundancy and dependency that usually involves dividing large tables into smaller tables and defining relationships between them. The proponents normalize the database from the First Normal Form to Boyce Codd Normal Form.

First Normal Form (1NF)

The columns in our table are already in its atomic value and there was no duplicating of columns with associated data.

Second Normal Form (2NF)

Third Normal Form (3NF)

Boyce Codd Normal Form (BCNF or 3. 5 NF)

### Chapter 3

#### GRAND ASTORIA HOTEL RESERVATION WEBSITE

#### 3. 1 Introduction

This chapter presents the research design, research setting, research instrumentation, data gathering procedures, system design specification and software and hardware requirements.

#### 3. 2 Research Method

The descriptive method of research was used in this study. This method has been employed in this study wherein the researchers gathered information about the present condition and proposed a way to enhance if not eliminate the conditions that affects the performance of the present existing way on how the reservation being done.

### 3. 2. 1 Research Design

The descriptive research is also called statistical research. The main goal of this type of research is to describe the data and characteristics about what is being studied.

### 3. 2. 2 Research Setting

This study has been developed for GRAND ASTORIA HOTEL which started during the 1st semester of the school year 2012-2013. The proponents developed this system and it will take place at the front desk personnel.

#### 3. 2. 3 Research Instrument

The research instruments used in gathering data from the respondents are researcher – made interview questionnaires.

The researchers made questionnaire regarding the process, transaction and reports with in their department. The researchers proposed system which includes the user's reports and ability to retrieve data from the database.

### 3. 2. 4 Data Gathering Procedures

The researchers conduct interview techniques and make use of the system.

The researchers conduct one on one interview to the manager and set interview questions to him.

### 3. 2. 5 System Design Specification

The proponents will use a sequential design process, in which progress is seen as flowing steadily downward through the phases of Planning, Analysis, Design, Coding, Testing also known as the waterfall model. As shown in the diagram below:

Planning Phase- the proponents discuss what system to construct, schedule the interviewee of target respondents, gather information to the respondent and assign task to each proponents regarding the documents.

Analysis Phase- the proponents inspect or examine the flow of the system to implement, specify objectives, general problems, identify its scope and limitation and normalize the database.

Design Phase- the proponents verified the version of the graphical representations of the architectural design in which this phase relies on the previous two stages for its proper implementation.

Coding Phase-the proponents ensures that the actual coding of the software is carried out. A proper execution of the previous stages ensures a smooth and easier implementation of this stage.

Testing Phase-the proponents will test the system after having verified the previous three stages.

### 3. 2. 6 Software Requirements

The software requirements will include Windows, Apache, MySql, Php- server, Dreamweaver CS3, Windows 7 Ultimate or Windows XP.

## 3. 2. 7 Hardware Requirements

The hardware requirements will include a Computer that has a Pentium to Core iSeries, 1GB (32 Bit) RAM or 2GB (64 Bit) RAM, 4GB of available Hard Disk space, DirectX 9 capable video card running at 1024×786 or higher-resolution display.