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**Design and Implementation of a Web Based
Reservation System for a Hospitality Industry in
Paragon Hotel**

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ABSTRACT

This system has mainly been made for online reservations of a Hotel. The system has been designed with the front end as Html/PHP/ javascript and the back end as My Sql. The project Online Reservation System for Hospitality Industry manages and maintains the records of guests and rooms in the hotel. The rooms have different categories such as Single Rooms, Executive Twin, Executive Deluxe, Executive Suites Apartments etc. So their charges and records will be maintained accordingly. This system has been made in a wither-friendly interface so that the guests can easily make reservations online, Receptionist can view all the reservations made and can as well make feedback to Guests if necessary, and the Administrator can view, Delete and Assign Reservations. A reservation is the end result of the decision process, but to better understand the value of an online reservation system, getting to that end result, this study investigates the pre-purchase decision thinking of guests. It evaluates the effectiveness of the system to all guests looking at how purchase decisions were made within other industries relating it back to the hospitality industry.

Keywords: Hotels, Online Reservation Systems, Pre-Purchase Decisions, Executive Suites Apartments, Administrator.

INTRODUCTION

Paragon Hotel began as one of the first hotels in Kampala's spectacular West Shore. Never had anyone built on Busaabala. However, Mr. Balondemu James the Ugandan owner, had only great success over the ensuing 16 years with the newly burgeoning tourist trade of visitors who wished to stay in close proximity to the island's famed pink sands. In 2002, Balondemu James sold his guesthouse to Mr Ogwambi Kenneth, who realized he was purchasing the finest hotel site near the island, Mr. Ogwambi Kenneth renamed the hotel Paragon Hotel and over the next twelve years he reinvested his earnings to eventually expand the hotel to 200 rooms, adding two wings and the front entrance area. Guests, who then arrived by ship, disembarked at the nearby Busaabala landing site and were transported to Paragon Hotel by private cars or public taxis. Due to its ideal location and magnificent beach (Busaabala), Paragon Hotel was also the place to be during College Weeks from the 90s through the 2000s. Thousands of students came to the hotel over the holiday breaks to enjoy live music, a beauty pageant and to socialize. Today, Paragon Hotel Kampala is an intimate luxury hotel. Guests enjoy personalized service and privacy is assured. Paragon Hotel has recaptured the spirit of when it was the grand dame of Kampala, a quality hotel with a sense of place and history with the most modern operations. Paragon Hotel overlooks the sparkling blue waters of South Shore and is within close distance of Busaabala beach. Paragon Hotel is a brilliant assemblage of 98 rooms and suites spread amongst 50 acres of lush manicured gardens that gently slope down to a signature pink sand beach. Guests will be delighted to find that the newly refurbished 98 guestrooms are gracefully arranged

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along paved paths that wind through a tamed jungle of subtropical flora, exotic plants and manicured green lawns. The guest rooms and suites herald distinct Rose flowers with pastel interiors, tile and wood floors, open-beamed ceilings and private patios. Nestled around the temperature-controlled 25-metre swimming pool, the fitness room, Kid's Club and spa inhabit the Garden level of the hotel. The newly renovated gift shop, new Desmond Fountain Art Gallery and business center are directly behind the majestic lobby. Paragon Hotel, now managed by Paragon Hotels Group, lies in Kampala central. Paragon Hotel is thirty-five minutes from downtown Kampala's capital, and one hour thirty minutes from the airport in Entebbe [1].

It is also of great important to have a steady light in the paragon hotel for effective web base functionality. The web based implementation in paragon hotel needs an alternative power supply for its robustness and durability. A solar power plant is so necessary to be used as an alternative means of power supply in the hotel. A solar photovoltaic power plant will be used as an alternative renewable source of energy (power) supply for effective implementation of this proposed web design. A comprehensive review, design, fabrication and optimization of solar photovoltaic energy has been implemented by many authors and that will help in the incorporating solar energy in the hotel [2-11] [12-17].

Statement of Problem

Based on the research conducted, the proponents (us) found out the problem of this study is: How will this system help the management and the staff of Paragon Hotel to have an accurate service and at the same time to monitor the records of the Guests? When starting new hotel, owners need to build their business. As a potential customer, there are hundreds of hotels to choose from, just miles from your doorstep. More and more hotels have turned to online reservation systems as a way of getting their name out into the market faster (Online reservation). Systems have become popular to independent hotels and upscale chains. For both categories of hotels, you get access to a way of getting your name out there, as well as table management software to run your business successfully [1][18][19]. However, chain hotels have an advantage over an independent hotel, in that chain hotels have an established brand name and brand image attached to their location. Guests have an idea what to expect before walking in the door or doing an information search on the particular company/hotel. New chain hotels enter the market with brand recognition. Most potential customers in their target audience know what to expect from the hotel already. Chain hotels already have allocated money to marketing, public relations, advertising; all ways of reaching potential customers. Pre-decisions are based on better information, customer preference, and consumer's control [20][2][7][4]. Customers rarely rely on one source as a means for making decisions. This raises the question, with all ways of reaching potential customers, are online reservation systems profitable for chain hotels? This study will investigate customer's pre-purchase decision in choosing a hotel and then booking a reservation. Studies have been conducted on customer's pre-purchase decision making; however, few studies have looked at what factors go into a guest's decision in booking a reservation at a specific hotel.

Aim

The purposes of this study are to propose and test a theoretical model to find out if chain hotels should utilize online reservation systems to attract new customers and regain the old customers. This study is conducted looking through the customer's pre-purchase decision making process; the specific objectives of this study are to:

Specific Objectives

- I. To investigate how, guests make a decision in making a reservation for a hotel.
- II. To examine the impact of online reservation systems in the customer's decision process.
- III. And to determine why guests choose a particular reservation method.

Research Questions

- What is the impact of online reservation systems in the customer's decision process?
- How do guests make a decision in making a reservation for a hotel?
- Why do guests choose a particular reservation method?

Justification

Hotels spend thousands, possible millions of dollars a year trying to reach potential guests, depending on the hotel or hotel chain. With all of this money that goes into reaching potential new guests, or bringing back old guests, what really works? Online reservation systems have combined two issues that hotels face into one. Online reservation system industries configure the information technology aspect of managing reservations and a way to market your hotel out to the public. Online reservation systems are not just a place to book a reservation, but a search database for potential guests to find the right hotel for the occasion, in the right location, and at the right time.

METHODOLOGY
Supporting tools analysis

In the process of system analysis, models are constructed to give an overview or stress on aspects of the whole system [20][3][5]. This enables analyst to contact users in the best way and when users' need is changed, it is possible to modify or construct a new model. Two important modelling tools used in system analysis are:

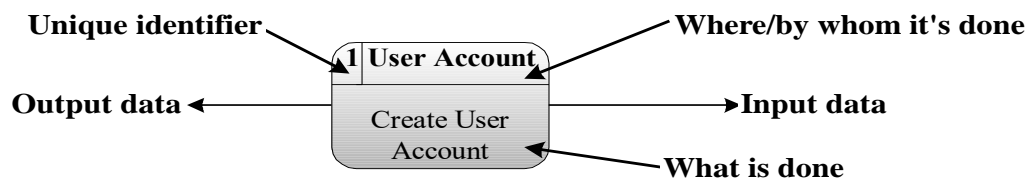
Data flow diagram (DFD)

A data flow diagram describes the information flow in the system. There are different sets of symbols available for data flow diagrams, depending on accepted conventions.

Process

A process is an organised set of activities which transforms inputs to outputs. The symbol for a process is a rounded rectangle.

Figure 1: Process symbol



Data flow

A data flow is a path for data to move from one part of the system to another. A data flow is shown as a directed line on the diagram.

Figure 1: Data flow symbol



Data store

A data store represents data that is retained for later processing. A data store is shown as an open-ended rectangle.

Figure 2: Data store symbol



As with external entities, it is common practice to have duplicates of data stores to make a diagram less cluttered.

Figure 3: Duplicate data store symbol

Duplicate data store



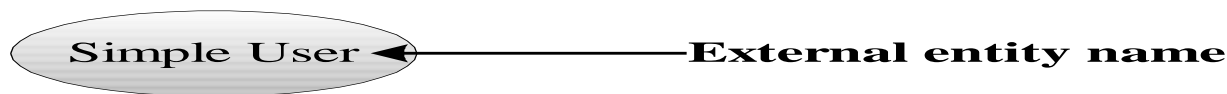
External entity

An external entity represents a person, organization, or other system that provides data or receives output from the system. An external agent is depicted by an overlapping rectangle.

Figure 4: External entity symbols

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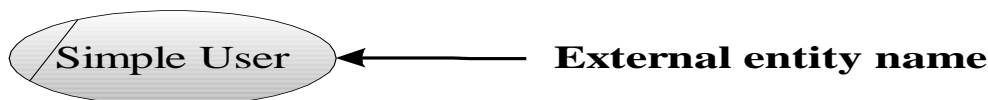
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It is common practice to have duplicates of external entities in order to avoid crossing lines, or just to make a diagram more readable.

A duplicate external entity

Figure 5: Duplicate external entity symbols



Entity-Relationship Diagram (ERD)

An Entity-Relationship diagram is a network model that describes stored data of a system at a high level of abstraction. ERD has a major benefit: it highlights the relationship between data stores on DFD which would otherwise only be seen in the specification process [21][6][8]. The main components of an ERD include:

Entity

An entity is a subject, a duty, or an event that has a significant meaning to the future system and is displayed by a rectangle with round corners. Each entity has its own name.

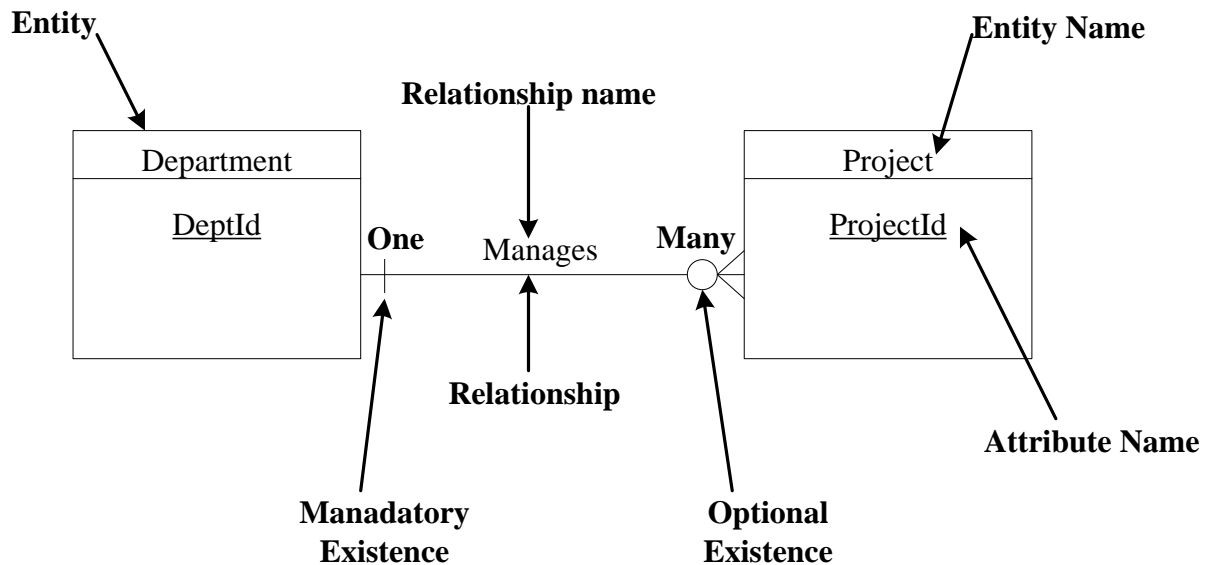
Attribute

Attributes are the characteristics of the entity displayed by fields or columns of a table.

Relationship

A relationship shows connections among the system's entities. These connections are displayed by triangle headed arrows. There are four major types of relationship used in ERDs: One - one relationship, One - many relationships, Many - One relationship, Many - many Relationship.

Figure 6: Entity Relationship Notations



Advantages of Structured Analysis

- I. Structured method is understandable.
- II. Powerful and expressive notations.
- III. Data flow diagrams and data dictionaries are good for communicating with users.
- IV. The method is complete—it covers architectural design to low level design.
- V. Modularization criteria are part of the method.

Disadvantages of Structured Analysis

- Little guidance for creating data flow diagrams or refining structure charts
- Poor for algorithmically intense systems with little data, e.g. mathematical systems

Methods and Technical

There several mainstream process models

Seat-of-pants, do-it-, or adhoc

This is no plan at all and no organization or serious developer would admit to using such an approach.

Prototyping

It is the practice of building an early version of a system which does not necessarily reflect all features of the final system, but rather those which are of interest.

Waterfall model

It is a popular version of the systems development life cycle model for software engineering. Often considered as the classic approach to the system development life cycle, the waterfall model describes a development method that is linear and sequential.

Spiral model

This combines different features of waterfall model and those of prototyping. The main feature of the spiral model is the recognition that there is often enormous uncertainty at many stages during a software development project [22][8][10][12]. In this study, the methodology used is the linear sequential model or waterfall model which is a standard model for development systems. In "The Waterfall" approach, the whole process of software development is divided into separate process phases. The phases in Waterfall model are: Requirement Specifications phase, Software Design, Implementation, Testing and Maintenance. All these phases are cascaded to each other so that second phase is started as and when defined set of goals are achieved for first phase and it is signed off, so the name "Waterfall Model". The stages of "The Waterfall Model" are:

i. Requirement Analysis and Definition

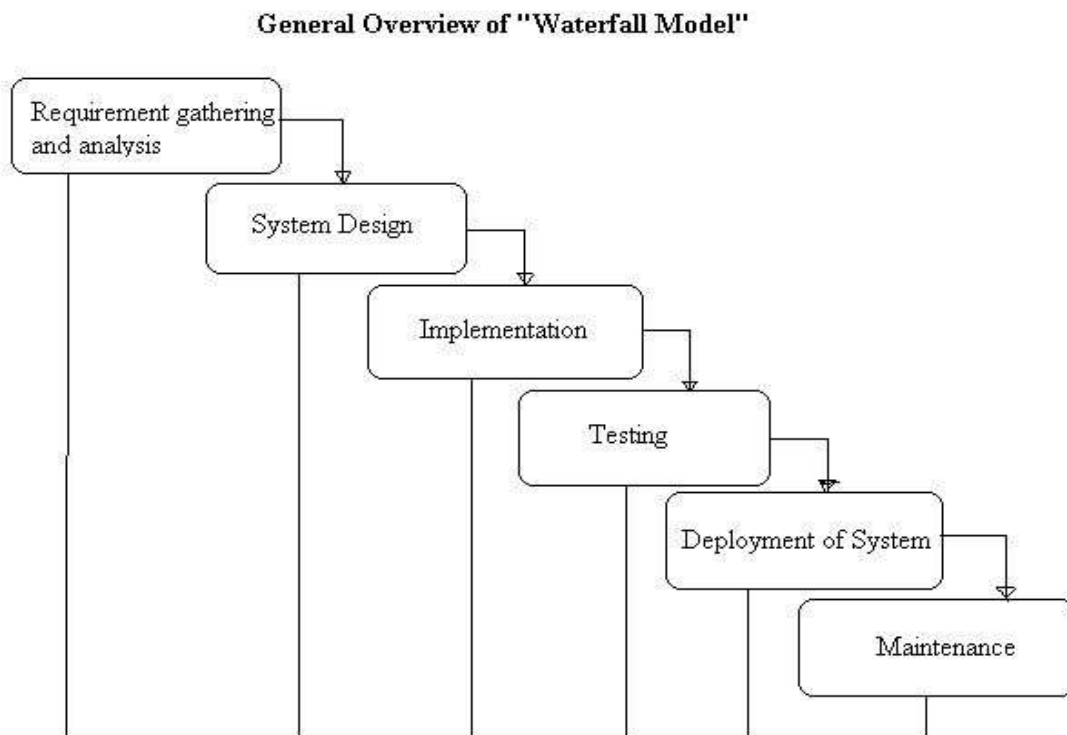
All possible requirements of the system to be developed are captured in this phase.

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- ii. **System and Software Design**
Before a starting for actual coding, it is highly important to understand what we are going to create and what it should look like? The requirement specifications from first phase are studied in this phase and system design is prepared.
- iii. **Implementation and Unit Testing:** On receiving system design documents, the work is divided in modules/units and actual coding is started.
- iv. **Integration and System Testing:** As specified above, the system is first divided in units which are developed and tested for their functionalities.
- v. **Operations and Maintenance:** This phase of "The Waterfall Model" is virtually never ending phase (Very long). Generally, problems with the system developed come up after its practical use starts, so the issues related to the system are solved after deployment of the system. We can summarize the waterfall in analysis and design, coding and tests of a system. Among this model, the great part of study is covered at the time of the analysis and systems design.

Figure 8: General overview of Waterfall Model



Database Concepts

Data

Data are distinct pieces of information, usually formatted in a special way. Data can exist in a variety of forms as numbers or text on pieces of paper, as bits and bytes stored in electronic memory, or as facts stored in a person's mind. Strictly speaking, data is the plural of datum, a single piece of information. In practice, however, people use data as both the singular and plural form of the word.

Database

A database is an organized collection of logically related data. The term organized means that data are structured so as to be easily stored, manipulated, and retrieved by users [9][11][23-31]. The term related means that the data

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describes a domain of interest to a group of users, and that those users can use the data to answer questions concerning the domain.

Database Management System

Database Management System (DBMS) is a collection of programs that enables you to store, modify, and extract information from a database [24] [15][17][32-38]. There are many different types of DBMSs, ranging from small systems that run on personal computers to huge systems that run on mainframes. The database management system manages user requests. In handling user requests, the DBMS ensures the integrity of the data and security. The most popular DBMS are MS access, Oracle, Sql Server, and MySQL.

There are two essential parts in database management system:

- The database
- The database management system
- Three objectives always drove the development and evolution of database technology:
- The need to provide greater independence between programs and data thereby reducing the maintenance costs.
- The desire to manage increasingly complex data and structures and types
- The desire to provide easier and faster access for users who have neither a background in

programming languages nor a detailed understanding of how data are stored in databases. Database technology was developed largely to overcome the limitations of file processing systems. The database is processed by the DBMS, which is used by both developers and users, who can access the DBMS either directly or indirectly via application programs. In a database system programs uses DBMS to access the stored data, all the application data is stored in a single facility called the database. An application program can ask the DBMS to access stored data. With well-structured database processing, the duplication is minimal. For example, for a customer's number, name, telephone, and address in any given database for any given customer, they are stored only once and whenever these data are needed, the DBMS can retrieve them, and when they are modified, only one update is necessary [22][24][27]. Because data are stored in only one place, data integrity problems are less common.

Data Base Processing

Database processing reduces the dependency of programs on file formats. All record formats are stored in the database itself and they are accessed by the DBMS, not by application programs. A database contains four main elements:

- i. **User data**
Database represents user data as relations. A relation is taken as a table of data. The columns of the table contain fields or attributes, and the rows of the table contain records for particular entities in the business environment.
- ii. **Metadata**
A database is self-describing, which means that it contains a description of its structure as part of itself. This description of the structure is called metadata. Since DBMS product are designed to store and manipulate tables, most products store the metadata in the form of tables, called system tables.
- iii. **Index**
It is a type of database data that improves the performance and accessibility of the database.
- iv. **Application metadata**
An application metadata is the final type of data that is stored in a database system, which is used to store the structure and format of user forms, reports, queries and other application component.

Tools, Techniques and Languages Used

Internet

The term "Internet" was originally coined in the 1970s and refers to the global network of public computers running Internet Protocol. The Internet supports the public WWW and many special-purpose client/server software systems. Internet technology also supports many private corporate intranets and private home LANs.

Client/Server Architecture

Client-server architecture is network architecture in which each computer or process on the network is either a client or a server. Servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers), or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients on server for resources such as files, devices, and even processing power. Shortly after computers were used in business, programmers realized that most business applications had three distinct components:

- i. The User Interface.

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Publications

- ii. The Business Logic.
- iii. The Data Management.

Client/Server systems are those computer applications that are developed with a conscious effort to identify the three components above and to determine where these components reside in a system of networked computers [25][20][23][37][33][39-42]. Client and Server often have two meanings in the same context. The client can be both a computer type and the software that contains the user interface code. The server can mean a computer type or the software that provides services.

RESULTS**The Proposed System**

The new system will be a dynamic web based system that will help Guests, System administrator and other stakeholders to access the information on web based hotel reservation system; the information of this new system will be from basically any computer and the server computer through the web browser and internet connection. The guests who will visit the system for the purpose of viewing the current amount or reserving a room in the hotel shall be given full information about the rooms available for reservation and their specification. The System administrator will be able to view the transactions of the Guests.

System Actors

An actor is a person, organization, or external system that plays a role in one or more interactions with a determined system. The WBRSHI has two categories of the system users. They are:

- Administrator
- Guests

Actor Glossary of Wbrshi**Figure 9: Actor glossary**

TERM	DESCRIPTION
Administrator	Staff in charge of administering the hotel reservation system. He reserves the right of: <ul style="list-style-type: none"> ☞ Modification of password ☞ View Guests transactions ☞ Print the report
Guests	Guests who have reserved with Paragon hotel. They reserve the right of: <ul style="list-style-type: none"> ☞ Reservation request ☞ Cancel the reservation request ☞ Print his/her transactions or status

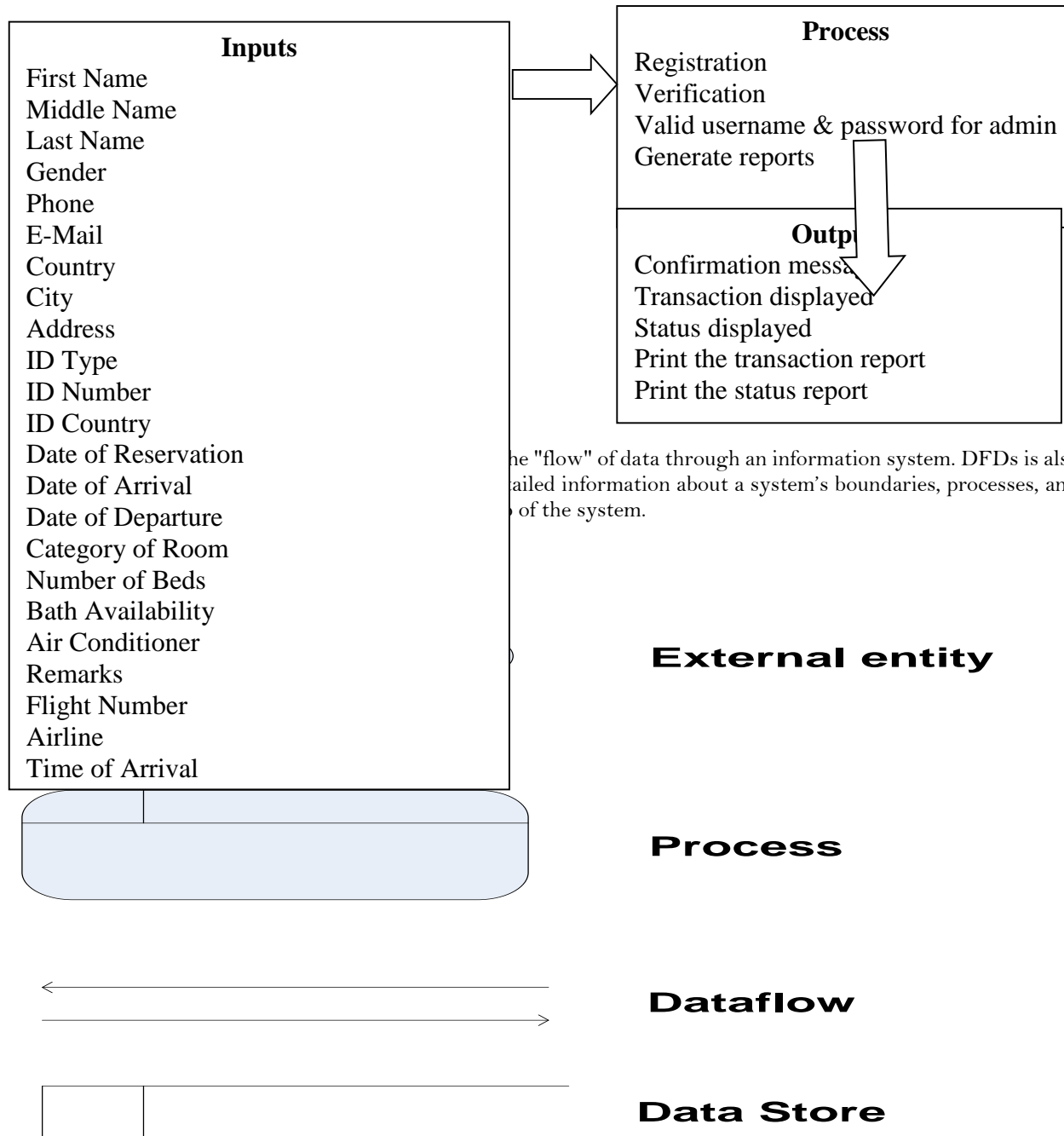
Source: Own Drawing

Figure 10: System outline

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System Outline of Wbrshi



The "flow" of data through an information system. DFDs is also called information about a system's boundaries, processes, and components of the system.

Source: Owner Drawing

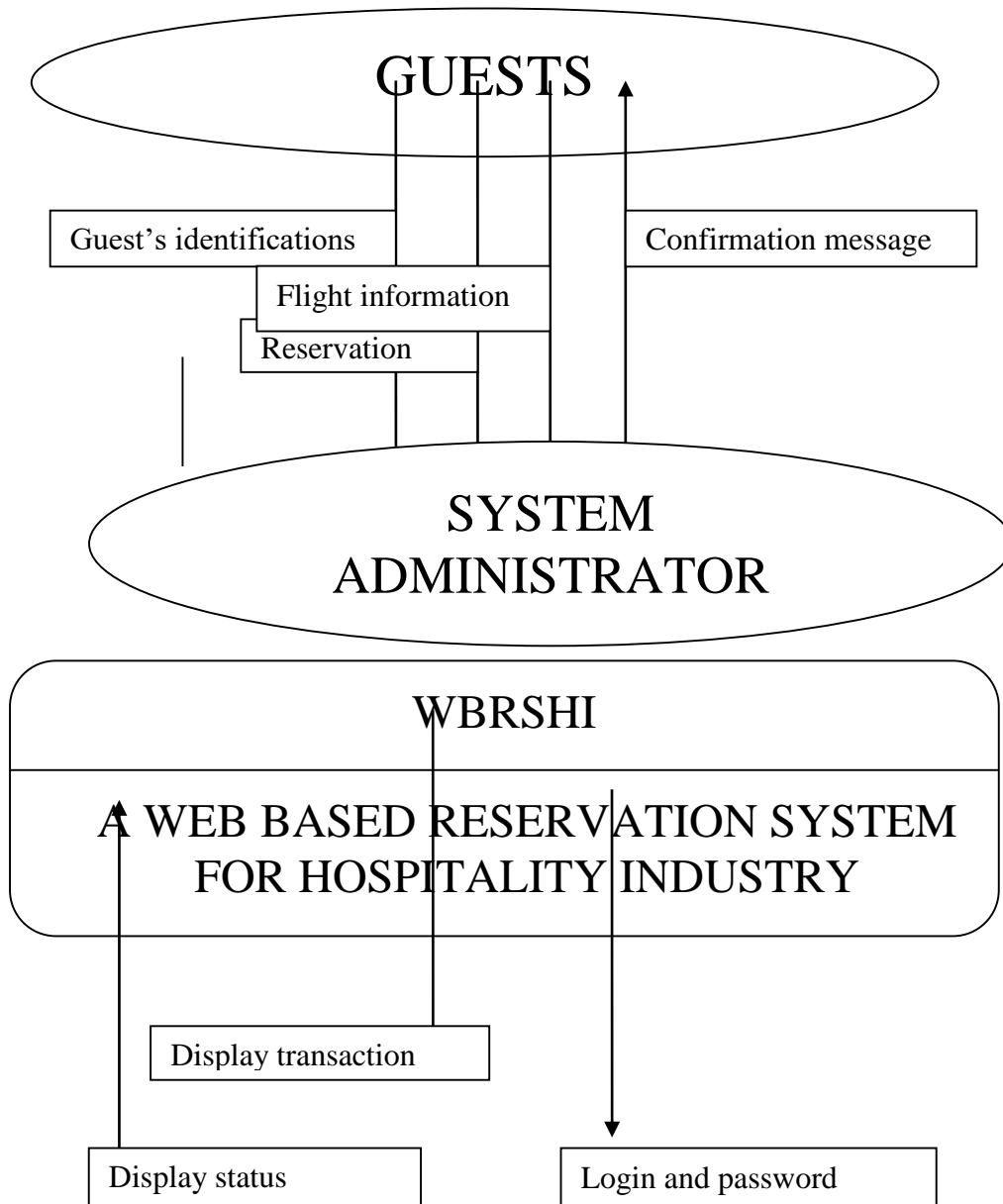
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Data flow Diagram

The context diagram represents the entire system under investigation. It is used to clarify and agree to scope of the investigation the system under investigation is represented as a single process, connected to external entities by data flows and resource flows. On the following pages detailed higher level DFDs are elaborated in PMAS logical system.

Figure 12: Level 0 Data flow Diagram



Source: Own Drawing

ENTITY RELATIONSHIP DESIGN

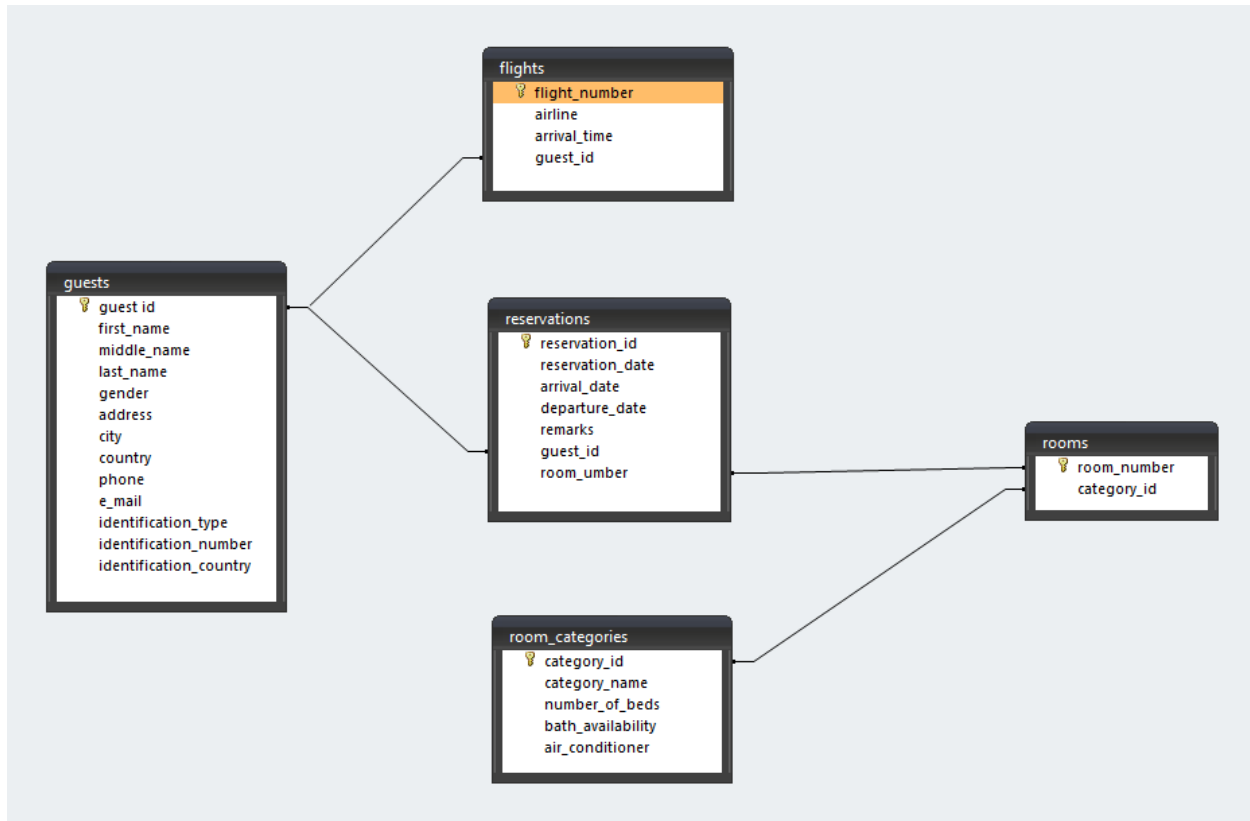
The entity-relationship model is mainly used as a language for conceptualization of the structure of information systems applications. Conceptualization of database or information systems aims in a representation of the logical

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and physical structure of an information system in a given database management system (or for a database paradigm), so that it contains all the information required by the user and required for the efficient behavior of the whole information system for all users. Furthermore, conceptualization may target to specify the database application processes and the user interaction. Description of structuring is currently the main use of the entity-relationship model.

Figure 13: Entity Relationship Model of WBRSHI



Source: Own drawings

Data Dictionary

Data dictionary is an organized listing of all data elements pertinent to the system, with precise, rigorous and definitions. The following table shows both Guests and system administrator a common understanding of all inputs, outputs, and components of WBRSHI.

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Figure 14: Administration table for a web based reservation system for hospitality industry

Server: localhost > Database: paragon_hotel_database

administrators

Table comments: InnoDB free: 11264 kB

Field	Type	Null	Default	Comments
user_name	varchar(30)	No		
password	varchar(30)	No		
first_name	varchar(30)	No		
last_name	varchar(30)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 15: Flights table for a web based reservation system for hospitality industry

flights

Table comments: InnoDB free: 11264 kB; ('guest_id') REFER ('paragon_hotel_database/guests') ('guest')

Field	Type	Null	Default	Comments
flight_number	varchar(15)	No		
guest_id	int(10)	Yes	NULL	
airline	varchar(30)	No		
arrival_time	varchar(30)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 16: Guests table for a web based reservation system for hospitality industry

guests

Table comments: InnoDB free: 11264 kB

Field	Type	Null	Default	Comments
guest_id	int(10)	No		
first_name	varchar(30)	No		
middle_name	varchar(30)	No		
last_name	varchar(30)	No		
gender	varchar(9)	No		
address	varchar(30)	No		
city	varchar(30)	No		
country	varchar(30)	No		
phone	varchar(30)	No		
e_mail	varchar(35)	No		
identification_type	varchar(15)	No		
identification_number	varchar(30)	No		
identification_country	varchar(30)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 17: Receptionists table for a web based reservation system for hospitality industry

receptionists

Table comments: InnoDB free: 11264 kB

Field	Type	Null	Default	Comments
user_name	varchar(30)	No		
password	varchar(30)	No		
first_name	varchar(30)	No		
last_name	varchar(30)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

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Figure 18: Reservations table for a web based reservation system for hospitality industry

Field	Type	Null	Default	Comments
reservation_id	int(8)	No		
guest_id	int(8)	Yes	NULL	
room_number	int(8)	Yes	NULL	
reservation_date	varchar(30)	No		
arrival_date	varchar(30)	No		
departure_date	varchar(30)	No		
remarks	varchar(30)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 19: Room Categories table for a web based reservation system for hospitality industry

Field	Type	Null	Default	Comments
category_id	int(4)	No		
category_name	varchar(35)	No		
number_of_beds	int(5)	No		
bath_availability	varchar(5)	No		
air_conditioner	varchar(5)	No		

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 20: Rooms table for a web based reservation system for hospitality industry

Field	Type	Null	Default	Comments
room_number	int(5)	No		
category_id	int(15)	Yes	NULL	

Source: a web based reservation system for hospitality industry (WBRSHI)

Requirements Specifications

Software and hardware requirements for the proposed system

On the server-side

- ❖ Windows operating system (XP, Windows Vista, Windows 7)
- ❖ A windows-based server application that is responsible for accepting HTTP requests. The package must include: Apache 2.2.6, MySQL 5.0.45, PHP version 4 or 5.
- ❖ PHP My Admin version 2.10.1 for database management.
- ❖ Ethernet Card and internet connection.

On the client –side

- ✚ Windows or Linux operating systems;
- ✚ Web client;
- ✚ Ethernet card and internet connection.
- ✚ Antivirus

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Hardware Requirements for the System

Computer Pentium 4 processor of at least 1.8 GHZ

- I. Random access Memory (RAM) at least 516MB.
- II. Hard disk drive (HDD) at least 40 GB.
- III. CD ROM drive and writer.
- IV. Monitor
- V. UPS unit and stabilizer

Functional Requirements

Functional requirements refer to the features that must be included in the system to satisfy the business needs and be acceptable to the users.

WBRSHI reservation system met the following functional requirements:

- The system Allows users (Guests) to browse on the system for the hospitality industry (hotel) in order to know more about the hotel, and make reservations.
- The system Allows the Administrator (or anyone who has authorized access) to use the database or accessing information from the database and produce a list of Guests who have reserved and their reservations.

Guests

In this software, a guest is anyone who is intends to make a reservation in Paragon Hotel. He has limited access to the whole system. Before making reservation, the following options are available: Guest's identifications, Reservation, Flight information.

- I. **Guest's identifications:** The Guest can fill in the following information: First Name, Middle Name, Last Name, Gender, Phone, E-Mail, Country, City, Address, ID Type, ID Number and ID Country.
- II. **Reservation:** The Guest can fill in the following information: Date of Reservation, Date of Arrival, Date of Departure, Category of Room, Number of Beds, Bath Availability, Air Conditioner and Remarks.
- III. **Flight information:** The Guest can fill in the following information: Flight Number, Airline, and Time of Arrival.

System Administrator

The system administrator in Paragon Hotel is in charge of administering the system i.e. Ensure all reservation go to their righteous guests there after making that mission accomplished. The administrator will have all privileges. After logging in as the administrator of the system, the following options are available: user name and a password.

Non-Functional Requirements

Non-functional requirements describe the features, characteristics, and attributes of the system as well as any constraints that may limit the boundaries of that system. The following were identified as the non-functional requirements for the reservation system in the department of information technology. The system is reliable and always available. The user interface is consistent throughout the application.

Interface Design (User Interface)

User interface design is the specification of a dialogue between the system user and the computer. The user interfaces were developed as html and Php based interface, with a menu-driven strategy that requires the user to choose an action from a menu or a list of alternatives.



Figure 21: Home page for a web based reservation system for hospitality industry

Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 22: Home page for a web based reservation system for hospitality industry





Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 23: Gallery page for a web based reservation system for hospitality industry.



Source: a web based reservation system for hospitality industry (WBRSHI)

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Figure 24: Gallery+ page for a web based reservation system for hospitality industry.Source: a web based reservation system for hospitality industry (WBRSHI)

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Source: a web based reservation system for hospitality industry (WBRSHI)
Figure 25: Recreation page for a web based reservation system for hospitality industry.



Source: a web based reservation system for hospitality industry (WBRSHI)

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Figure 26: Business Centre page for a web based reservation system for hospitality industry.



Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 27: Reservation page for a web based reservation system for hospitality industry.

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Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 28: Thanks page for a web based reservation system for hospitality industry



Figure 29: Employees page for a web based reservation system for hospitality industry

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Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 30: Employees page for a web based reservation system for hospitality industry

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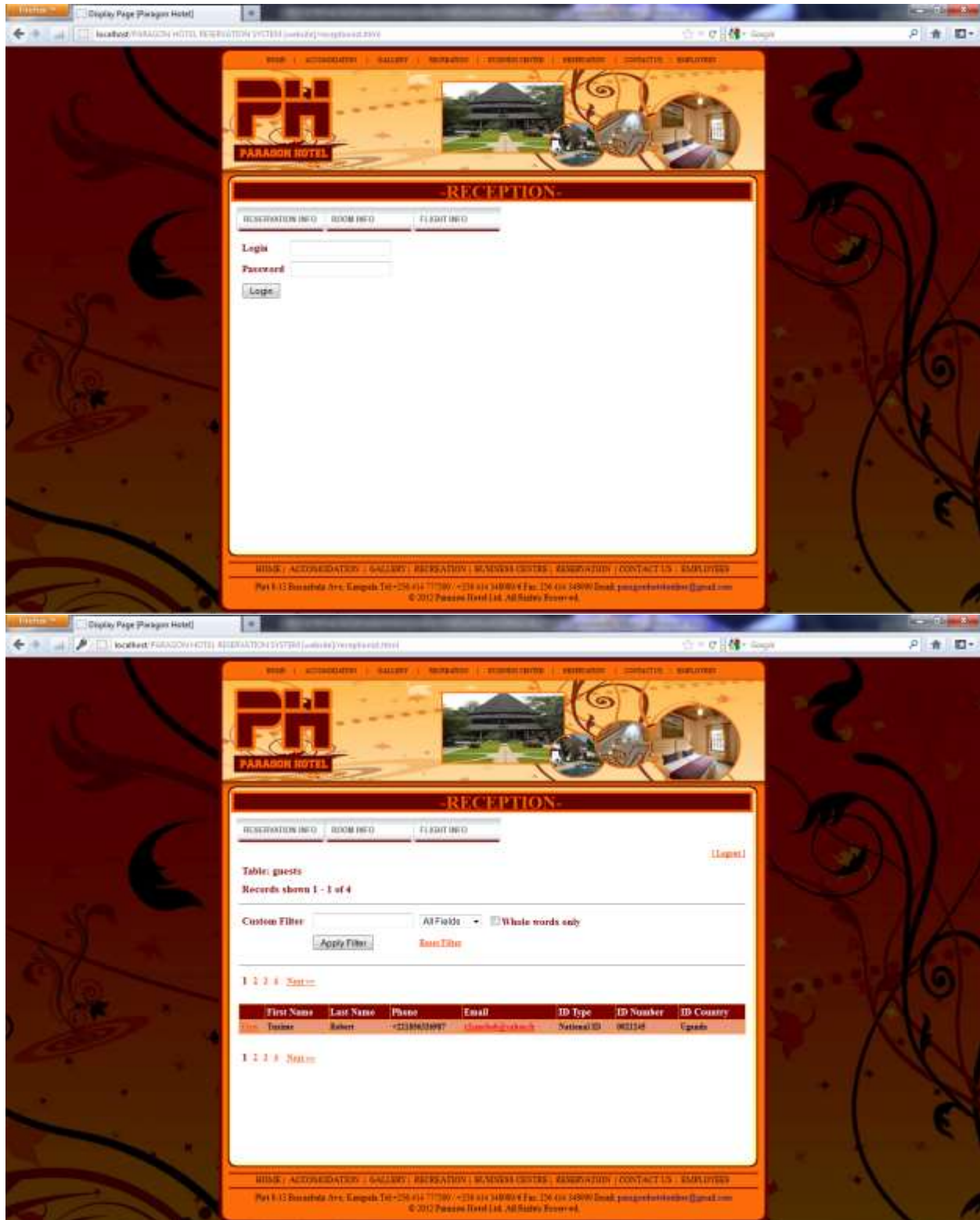


Figure 31: Receptionist page for a web based reservation system for hospitality industry

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Source: a web based reservation system for hospitality industry (WBRSHI)



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Source: a web based reservation system for hospitality industry (WBRSHI)

Figure 32: Administrator page for a web based reservation system for hospitality industry

System Implementation

To implement this application, the apache server is used, along with MySQL as the database server; PHP is a server-side scripting language. WAMP Server is a WAMP software bundle that installs web server services into the windows computer and allows quick-and-easy development of PHP and MySQL on a localhost (also known as 127.0.0.1). Is it possible to develop a web based reservation system for hospitality industry, under the online application to promote good mutual understanding with Guests?

Verification of the Hypothesis

The hypothesis of this project is to make it possible to develop a web based reservation system for hospitality industry, under the online application to promote good mutual understanding with Guests. This will help the Guests and Administrator reserve or cancel through the WBRSHI for the daily activities. The tested and verified software clearly proves that a web based reservation system can be managed online; and also, it demonstrates how every guest reservation can transfer, view status online, access the database and retrieve the needed information about the Guests and their reservations status. The researcher worked hard to make the system efficient, accurate and satisfying to the Hotel management. Thus the hypothesis has been successfully achieved since the results are as the hypothesis expected.

DISCUSSIONS CONCLUSION

The main objective of the current project was to provide a web based application, which will be used by Paragon Hotels in the management of the hotel. We tried to analyze the existing hotel management system offered by Paragon Hotel to its guests, and we clearly showed how the system can migrate from paper-based to a web application system. These objectives had been successfully achieved with a practical solution which shows that using Web based reservation system for hospitality industry is effective. A data-processing tool has been developed for the service of managing Web based reservation system for hospitality industry through a web application. Therefore,

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the Online hotel reservation System came up with various features in which we would attempt to number the following ones:

- ☛ List all guests and their transaction.
- ☛ This work shows that the project with the above features can make the reservation department more effective in order to improve the time saving and quality of services and reduce the wasted paper during the reservation and payment to the hotel.

RECOMMENDATIONS

Based on experiences, investigation carried out and some constraints encountered, to finish this research the following recommendations are mentioned, for the great success of the present system:

- I. The project ended with software product. The wisdom of software engineering teaches that software is never completed. Thus we suggest this software to be considered as product in progress.
- II. Some imperfections must be revised and corrected before the deployment and functionality of Web based reservation system for hospitality industry.
- III. For further research, the researcher is suggesting to use this system which can manage Web based reservation system for hospitality industry such as online transfer, payment among the guests Worldwide.
- IV. Further, object oriented or waterfall models are recommended as the basis of a final deliverable since a prototype is limited in functionality such as involvement of administrator and guests.
- V. For Paragon Hotel, I recommend to implement this software in professional environment of Web based reservation system for hospitality industry.

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