

**A Project/Dissertation ETE**

**Report on Hotel Website**

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the award of the degree of*

Program Name with Specialization



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**Under The Supervision of Dr.Vandana Sharma Pro-  
ject Guide**

**Submitted By 1.Shazib Ahmad**

19021040041/ 19SCSE1040040

**2.Saksham Mishra**

19021040026/ 19SCSE1040024

**SCHOOL OF COMPUTING SCIENCE AND EN-  
GINEERING DEPARTMENT OF COMPUTER  
SCIENCE AND ENGINEERING GALGOTIAS  
UNIVERSITY, GREATER NOIDA**

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## Abstract

Abstract of the Project Hotel Website:

The purpose of Hotel Website is to automate the existing manual system by the help of computerised equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Hotel Website, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good

performance and better services for the clients.

- **HTML - instructs the browser on how to display the underlying content. It forms the basic building block of a website.**
- **CSS - provides styles to format the HTML components on the browser. CSS determines the fonts, size, colors, and other static elements of the frontend.**
- **JavaScript - programming language that turns HTML components into dynamic objects. It brings interactiveness to the front end.**

- **Frontend UI frameworks - React, Vue, and Angular are popular UI frameworks that allow you to build on top of existing structures and components.**
- **CSS preprocessors - Extension languages like SCSS, SASS, and LESS. They overcome the limit of CSS.**

The back end, which isn't visible to the end-users, involves business logic, authentication, database management, and synchronizations with the client app. Also known as the server- side, it is made up of a server, database, and applications that run on it.

**Developing the backend requires these web development stacks components.**

- **Operating system**
- **Web server**
- **Databases**
- **Storage**
- **Hosting**
- **Programming language**
- **Web development frameworks**

## 1. JavaScript:-

JavaScript is a text-based programming language used both. on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.

**2. PHP:-** PHP is a server side scripting language. that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages.PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only.

**3. CSS:-** Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs,variations in display for different devices and screen sizes as well as a variety of other effects.

**4. SQL:-** SQL is Structured Query Language, which is a computer language for storing, manipulating and retrieving data stored in a relational database. SQL is the standard language for Relational Database System. All the Relational Database Management Systems (RDMS) like MySQL, MS Access, Oracle, Sybase, Informix, Postgres and SQL Server use SQL as their standard database language.

Also, they are using different dialects, such as –

- MS SQL Server using T-SQL,
- Oracle using PL/SQL,
- MS Access version of SQL is called JET SQL (native format) etc.

**Results and output:-** With more than 60% of people across the world jumping over the internet to book hotels, choose best hotel, Hotel Websites has revolutionized the whole booking experience. It allows people to book, explore things off from the ease of their office chair, home lounge's couch and even while travelling around with just a simple click of their finger! It has become now that easy to book hotel off from anywhere and anytime through an online operating system of Hotel Website. Hotel Website doesn't provide benefits to customers and hotel only, it is a holy grail for the Third party apps as well. With Hotel website they can now expand their business all across the world which otherwise physically is impossible and requires a lot of investment.

**Conclusion:-** Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

**At the end it is concluded that we have made effort on following points.**

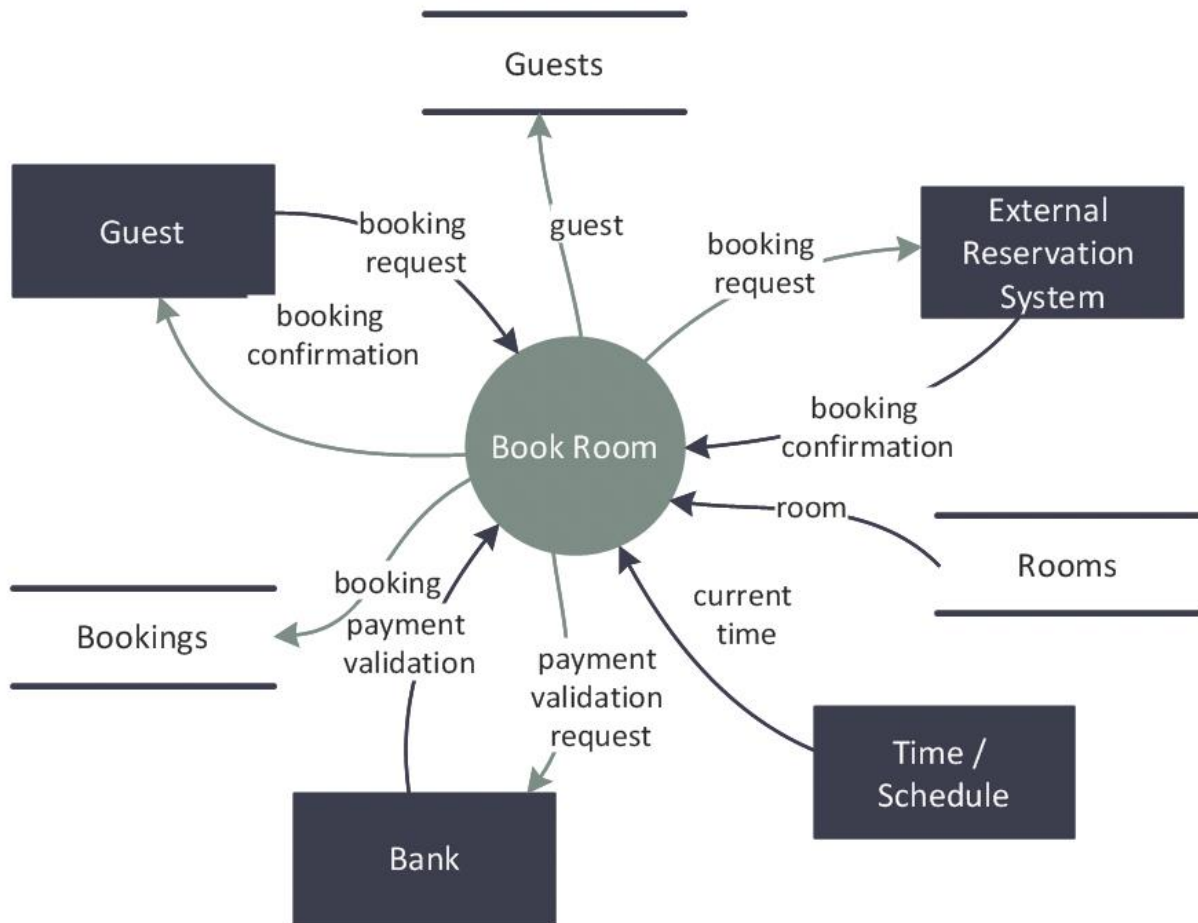
A description of the background and context of the project and its relation to work already done in the area. Made statement of the aims and objectives of the project. The description of Purpose, Scope, and applicability. We define the problem on which we are working in the project. We describe the requirement Specifications of the system and the actions that can be done on these things. We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system. We included features and operations in detail, including screen layouts. We designed user interface and security issues related to system. Finally the system is implemented and tested according to test cases.

**Future Scope:-** In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding:

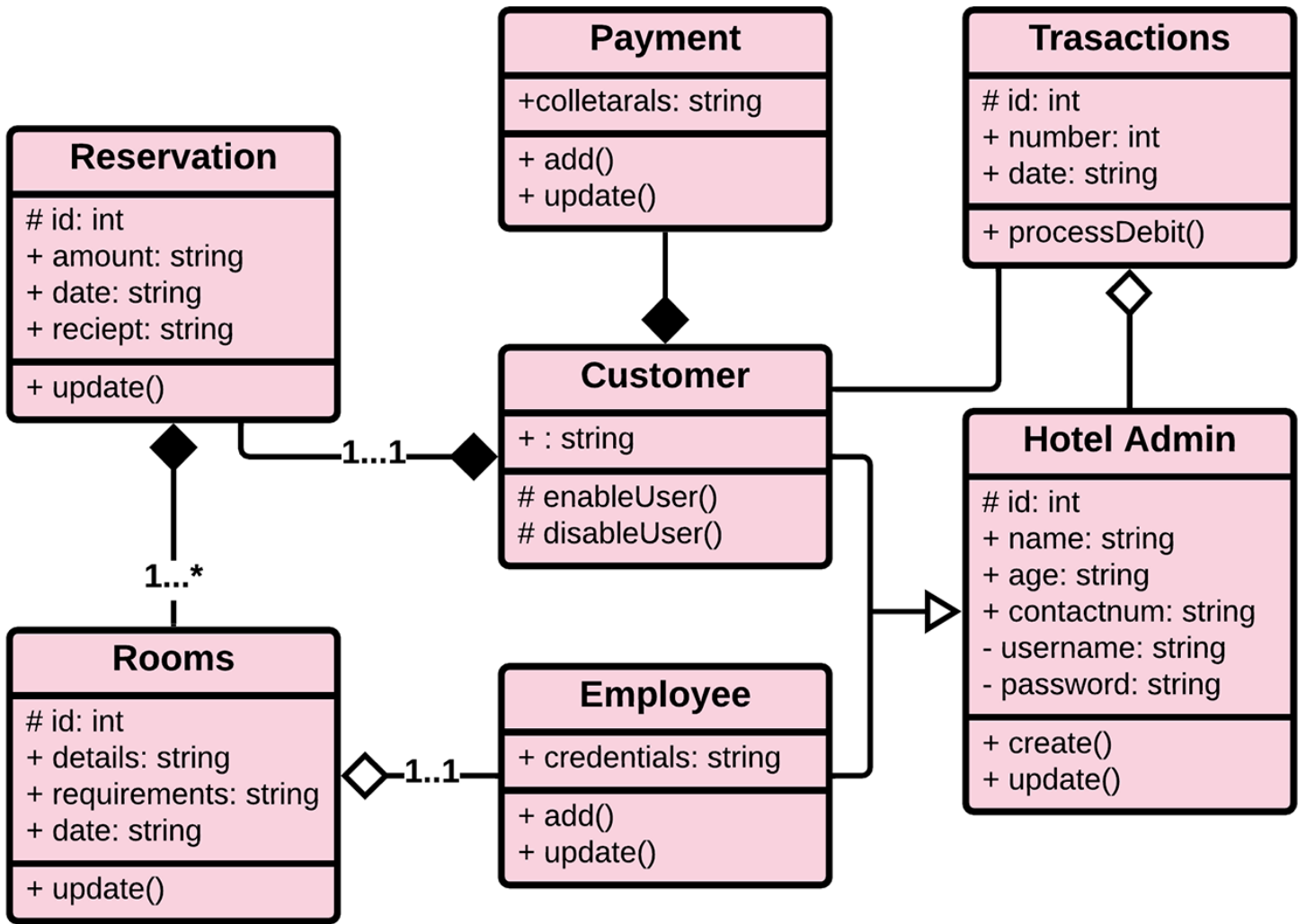
- We can add printer in future.
- We can give more advance software for Hotel Website including more facilities
- We will host the platform on online servers to make it accessible world-wide
- Integrate multiple load balancers to distribute the loads of the system
- Create the master and slave database structure to reduce the overload of the database queries
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers The above mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Hotel and Room. Also, as it can be seen that now-a-days the players are versatile, i.e. so there is a scope for introducing a method to maintain the Hotel Website. Enhancements can be done to maintain all the Hotel, Room, Category, Booking, Facility.

We have left all the options open so that if there is any other future requirement in the system by the user for the enhancement of the system then it is possible to implement them. In the last we would like to thank all the persons involved in the development of the system directly or indirectly. We hope that the project will serve its purpose for which it is developed there by underlining success of process.

**DFD:-**



**UML:-**





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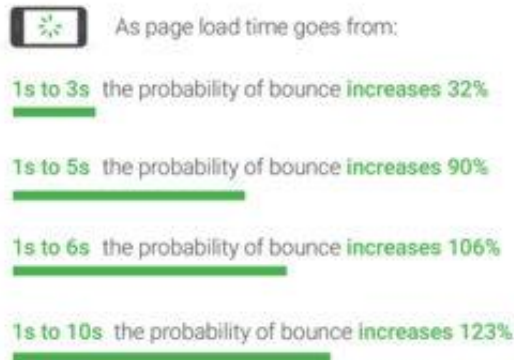
## **CHAPTER 1.1 INTRODUCTION**

The project, Hotel Management System is a web-based application that allows the hotel manager to handle all hotel activities online. Interactive GUI and the ability to manage various hotel bookings and rooms make this system very flexible and convenient. The hotel manager is a very busy person and does not have the time to sit and manage the entire activities manually on paper. This application gives him the power and flexibility to manage the entire system from a single online system. Hotel management project provides room booking, staff management and other necessary hotel management features. The system allows the manager to post available rooms in the system. Customers can view and book room online. Admin has the power of either approving or disapproving the customer's booking request. Other hotel services can also be viewed by the customers and can book them too. The system is hence useful for both customers and managers to portable manage the hotel activities.

## **1.2 Formulation of Problem**

<b>1. Slow</b>	<b>Loading</b>	<b>Time</b>
<p>Website speed isn't only a ranking factor for your SEO but also a huge boost for direct sales. Every second of delay increases the bounce rate and decreases visitors' satisfaction, and therefore your conversion. Even though Google doesn't give a specific number, you can benchmark with Booking.com – it takes 4 seconds for the website to be interactive. To win the conversion game, your website, desktop, and the mobile version should load faster than 4-5 seconds. There are plenty of free tools that can help you check your website's speed and provide you with tips on what to improve. Start with Page Speed Insights by Google or choose Pingdom, GTmetrix, or WebPageTest.</p>		

from Find Out How You Stack Up to New Industry Benchmarks for Mobile Page Speed



Source: Google/SOASTA Research, 2017.

think with Google

thinkwithgoogle.com

## 2. Unclear Call to Action (CTA)

The book button should be the most attractive and visible element on every page. The CTA should be visible at all times, including when the user scrolls and leaves the homepage. Use clear and compelling copywriting, action verbs, and verbs referring to the desired action: Book or Sign In instead of Search or Add email. Make sure that various CTAs are not conflicting with each other on the same page.

## 3. Poorly Made Offers

Good offers increase the value of your website, bad offers leave more questions and result in the user being perplexed. Here are some critical don'ts:

- Don't duplicate promotions from OTAs – if they are not unique, they don't encourage loyalty;
- Don't overload the user with too many options – so don't make it hard to choose;
- Don't forget the CTA – applying for an offer shouldn't be confusing;
- Don't make it hard to book. For example, by adding a complicated Reward Program Sign In;

- Make offers consistent and logical, not contradicting with each other;
- Don't forget to update the website regularly and delete inactive offers.

#### **4. Website Not Being Responsive and Not Optimized for Mobile.**

Guests are checking your mobile website: more than a third of all bookings come from mobile devices and more than half use multiple devices (mobile, tablet, desktop). These numbers are growing. Be sure to have a seamless mobile process and mobile-first booking engine, don't scare your guests away!

#### **5. Bad Design: No Style Guide**

Obsolete, cluttered, inconsistencies on a website page repel guests. Your design should reflect your hotel's style, target audience, and be aligned with your marketing strategy. For example, if the hotel has been renovated and you want to promote the modern new rooms, an old-school webpage design doesn't transmit the right message.

#### **6. Confusing Navigation and Menu**

Do you know why guests visit your hotel website? To find information about the rooms and promotions and to make a booking. Be sure your main menu serves that purpose.

- The header should contain information that users need. For example, we're hiring can be placed in the footer;
- Avoid placing too many items on the menu – don't hide the important sections;
- Choose a standard, horizontal design and put it in the standard place (top of the page) – so users won't spend any extra seconds looking for it;

- Make it descriptive: About Hotel instead of About us, Conference Hall or Restaurant instead of Services;
- Use links, not buttons. Buttons load slower, it's harder to adapt them to mobile. They decrease your website speed and they are not SEO friendly.

## 7. **Low-Quality Visuals**

Images and videos are the only way your visitors can 'feel' your hotel. If your leading image is bad, you probably won't have a chance to make a second impression.

Try to avoid the bad quality visuals, unappealing images or video, and irrelevant visuals targeting wrong audiences.

## 8. **Generalized Marketing Strategies**

As well as for visuals, the content should be target-specific. Know your audience, focus on identifying guest personas, and adapt your website accordingly. There's quite a difference between selling to families compared to business travellers!

## 9. **Poor Language Use**

Check and recheck your website for mistakes, typos, and bad translations. Especially translations! It is better to have fewer language versions made properly than too many versions that you can't update and ensure the quality of the translations.

## 10. **Too Much Information**

Don't overwhelm guests with too much text, but keep balance by providing all necessary information (rates, conditions, rooms description, etc). Be consistent

with the style of writing throughout website pages, social media, and other communication platforms. Know the message you want to share and find proper wording.

## **11. Disparity!**

Your digital sales strategy should always be focused on the Best Rate Guarantee principle. Good channel managers and OTAs' control tools (disparity alert) can help you to ensure OTAs don't undercut your price. To automate control of online travel agencies, use Price matching. For example, Rate The comparison widget by 123COMPARE.ME automatically offers a discount in case a disparity with the OTA was detected.

### **1.2.1 Tool and Technology Used**

In this Section we will do Analysis of Technologies to use for implementing the project.

## **FRONT END**

### **1. HTML**

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

## **2.CSS**

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

CSS information can be provided from various sources. These sources can be the web browser, the user and the author. The information from the author can be further classified into inline, media type, importance, selector specificity, rule order, inheritance and property definition. CSS style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used; for example, the screen version can be quite different from the printed version, so that authors can tailor the presentation appropriately for each medium. The style sheet with the highest priority controls the content display. Declarations not set in the highest priority source are passed on to a source of lower priority, such as the user agent style. The process is called cascading. One of the goals of CSS is to allow users greater control over presentation. Someone who finds red italic headings difficult to read may apply a different style sheet. Depending on the browser and the web site, a user may choose from various style sheets provided by the designers, or may remove all added styles and view the site using the browser's default styling, or may override just the red italic heading style without altering other attributes.

## **3. JavaScript**

JavaScript is a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it. As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype-based) programming styles. It has APIs for working with text, arrays, dates, regular expressions, and the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities. It relies upon the host environment in which it is embedded to provide these features.

Initially only implemented client-side in web browsers, JavaScript engines are now embedded in many other types of host software, including server-side in web servers and databases, and in non-web programs such as word processors and PDF software, and in runtime environments that make JavaScript available for writing mobile and desktop applications, including desktop widgets.

The terms Vanilla JavaScript and Vanilla JS refer to JavaScript not extended by any frameworks or additional libraries. Scripts written in Vanilla JS are plain JavaScript code. Google's Chrome extensions, Opera's extensions, Apple's Safari 5 extensions, Apple's Dashboard Widgets, Microsoft's Gadgets, Yahoo! Widgets, Google Desktop Gadgets, and Serence Klipfolio are implemented using JavaScript.

## **BACK END**

### **1. PHP**

PHP is a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension ".php".

The term PHP is an acronym for PHP: Hypertext Preprocessor. PHP is a server-side scripting language designed specifically for web development. PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP with client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser.



PHP: Hypertext Preprocessor (or simply PHP) is a general-purpose programming language originally designed for web development. It was originally created by Rasmus Lerdorf in 1994. PHP code may be executed with a command line interface (CLI), embedded into HTML code, or used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in a web server or as a Common Gateway Interface (CGI) executable. The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control.

## 2. MySQL

MySQL is an open source relational database management system (RDBMS) based on Structured Query Language (SQL). It is one part of the very popular LAMP platform consisting of Linux, Apache, My SQL, and PHP. Currently My SQL is owned by Oracle. My SQL database is available on most important OS platforms. It runs on BSD Unix, Linux, Windows, or Mac OS. Wikipedia and YouTube use My SQL. These sites manage millions of queries each day. My SQL comes in two versions: My SQL server system and My SQL embedded system.

### RDBMS

### TERMINOLOGY

Before we proceed to explain MySQL database system, let's revise few definitions related to database.

- **Database: A database is a collection of tables, with related data.**
- **Table: A table is a matrix with data. A table in a database looks like a simple spreadsheet.**
- **Column: One column (data element) contains data of one and the same kind, for example the column postcode.**
- **Row: A row (= tuple, entry or record) is a group of related data, for example the data of one subscription.**
- **Redundancy: Storing data twice, redundantly to make the system faster.**

- **Primary Key:** A primary key is unique. A key value cannot occur twice in one table. With a key, you can find at most one row.
- **Foreign Key:** A foreign key is the linking pin between two tables.
- **Compound Key:** A compound key (composite key) is a key that consists of multiple columns, because one column is not sufficiently unique.
- **Index:** An index in a database resembles an index at the back of a book.
- **Referential Integrity:** Referential Integrity makes sure that a foreign key value always points to an existing row.

## CHAPTER 2

### LITERATURE

### SURVEY

**A literature review is a research on the topic. Hotel Website:**

Definition of Website Quality According to Chang and Chen (2008), website quality can be regarded as “users’ evaluation of whether a website’s features up to standard and expose the whole performance of the web site”. It presents the importance of customers in judging website performance (Bai et al., 2008). There are two factors reveal the usefulness and effectiveness of hotel websites: functionality and usability (Au Yeung and Law, 2004). The functionality refers to the viewpoints of right content, while usability reflects whether or not the website is efficient and pleasurable for the displaying products/services (Wang et al., 2015). The hotel’s website system usually performs two functions. First, is to provide information to customers to make their purchasing decisions online. The efficiency of the information provided may influence customer’s satisfaction leading to loyalty towards the website. Second, it facilitates the purchase of products offered (Crnojevac, Gugić, & Karlovčan, 2010). From a consumer’s point of view, online booking creates by providing useful information at no cost. From a manager’s perspective, the main aim

of operating a website is to collect revenue via online businesses. Online exchanges between customers will benefit hotels as more customers will be attracted to the website. Importance of Utilizing Website for Hotel Business Through the development of Internet, organizations can distribute their products through channeled networks, as well as other direct channels of distribution. Shifting focus to the hotel, and tourism industry, travel intermediaries (online-travel agencies) and search engines distribute both dynamic and static information including hotel availability

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and pricing rates. The use of websites for online reservation may result in an expensive and complex distribution chain due to the number of intermediaries involved. Consequently, more hotels consider using Internet marketing and their websites to save cost (Sanchez-Franco & Rondan-Cataluña, 2009). According to a survey on the use of Internet marketing by hotels, many of hotel businesses in the year 2009 stated the use of online marketing was more cost effective in generating returns (Sanchez-Franco & Rondan-Cataluña, 2009). However, lack knowledge and organizational resources were the major challenges facing the use of Internet marketing to its potential. Online booking has become a popular alternative for travelers owing to the nature of the travel business. Consumers are now able to access accurate and reliable information on hotels, make reservations in the shortest time, at lower costs with little inconveniences encountered. The development of information communication technologies particularly the Internet led to the emergence of new crop of tourists who were less interested in mass tourism packages. They are more sophisticated and independent utilizing different tools to plan their itineraries. With the primary aim of satisfying their needs, these tourists will utilize hotel reservation system, social media platforms such as Twitter and Facebook, search engines including Google and destination managing systems (Hashim, Murphy, & Law, 2007). Moreover, portals such as Trip Advisor and Wynn are used to compare services and prices for different hotels. Online business transactions will have mutual benefit between hoteliers and their clients. The hotel's management will have the opportunity to regulate their operation costs. As opposed to hoteliers using central reservations systems (CRS), global

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distribution systems (GDS), and universal switch the use of websites saves on commissions and fees for connection to other intermediaries (Buhalis & Law, 2008). Hoteliers enjoy increased profits by adopting direct distribution networks. Use of online reservation systems results in reduced labor cost. The functions that

would be done by hotel staff including providing information about location and amenities are provided in the website. This reduces the number of employees in the hotel and leads to effective management and distribution of the labor force.

Managers can use hotel websites as a medium for interaction with their customers. This creates an important component to build customer loyalty and trust (Buhalis & Law, 2008). Questionnaires, inquiries and service mails can be used to collect customer opinions about hotel's service enabling managers to re-evaluate their hotel's operational and management strategies.

The consumers, through the use of online booking, they are able reduce costs. They will not have to call hotels to do their reservation. Instead, reservations can conveniently be done with only a few clicks on their computers. Crnojevac, Gugić and Karlovčan (2010) acknowledges that, most customers who plan their travel online claimed to have reduced the number of phone calls and visits to travel intermediaries since they started planning their travel through the Internet. This was the same for individuals who needed to make reservations to hospitality institutions such as hotels, airlines and car rental companies. Through the use of websites, online customers find the best rates available and hoteliers carry out Internet businesses without having to incur high fees and commissions.

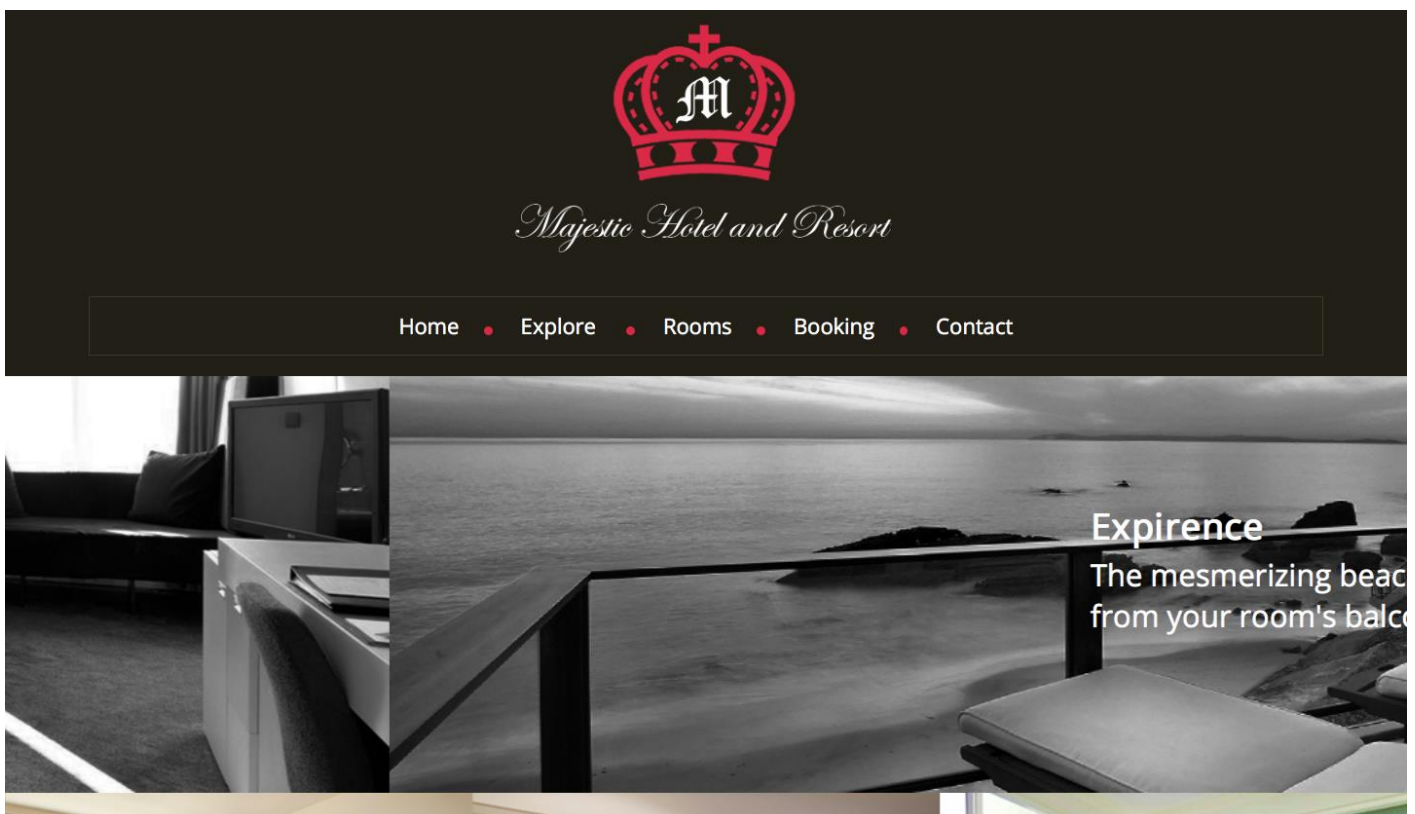
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Moreover, since the web systems are designed to remember a consumer's preferences, customers are able to acquire automated customized services through the search function of the website. Repeat visitors will have the convenience of retrieving their information easily as it is stored in the systems database (Lindgaard et al., 2006).

As a consequence, the use of information technologies in the hotel industry has had several effects to both the consumer and the hotels. The increase in the number of travel websites has led to intense competition. This is attributed to the emergence of third-party intermediaries, specifically online- travel agencies such as expedia.com and hotels.com, selling diverse product offering customers a one stop shopping advantage. In addition to that, customers have become more prices sensitive and less inclined to brand oriented purchasing. Lastly, with the changing shift in power from market suppliers to third-party intermediaries and customers, hoteliers have to handle the risks and utilize opportunities presented in capturing consumers' attention (Lindgaard et al., 2006).

## Results

### Home Page:-



## Explore

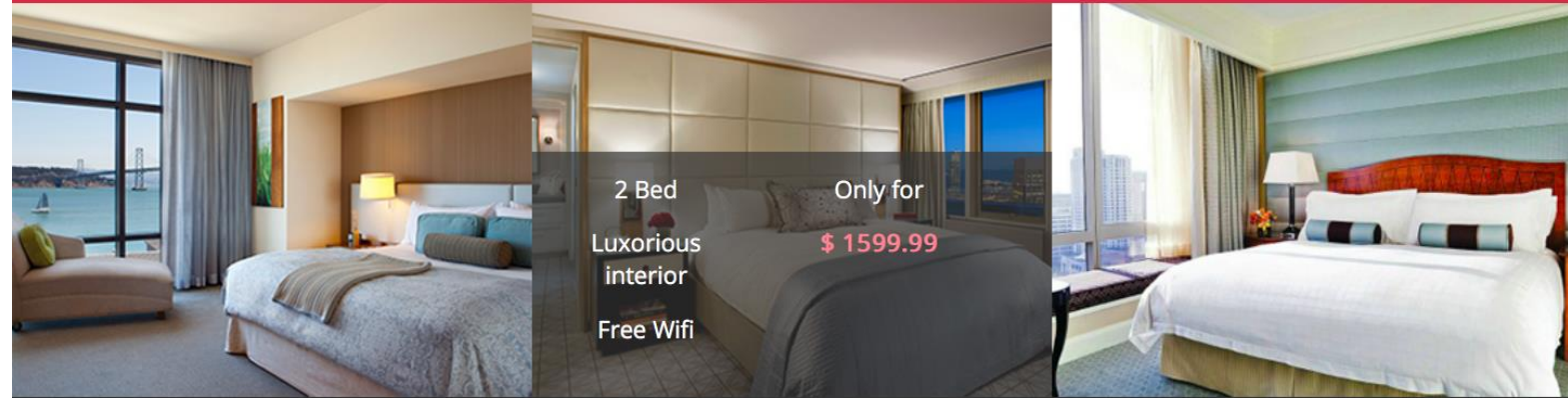


Luxurious and  
Spacious Rooms



**Explore:-**

## Rooms



The image displays three hotel room options. The first is a 'Luxury Suite' with a large window overlooking a bay and a bridge. The second is a 'Delux Suite' featuring a large bed, a desk, and a view of a city skyline at night. The third is a 'Premier Suite' with a large bed, a desk, and a view of a city skyline. A semi-transparent overlay on the 'Delux Suite' image contains the following text: '2 Bed', 'Luxurious interior', 'Free Wifi', and 'Only for \$ 1599.99'.

Luxury Suite

Delux Suite

Premier Suite

**Rooms:-**

## Booking:-

Home • Explore • Rooms • Booking • Contact

# Booking

Rooms

Luxury Suite

Number of Rooms

- 1 +

Number of Guests

- 1 +

Visiting Dates from Arrival to Departure

10 May-22 to 10 May-22

Proceed




## Contact:-

*Majestic Hotel and Resort*

Home • Explore • Rooms • Booking • Contact

# Contact

We are situated over here 



Oops! Something went wrong.

This page didn't load Google Maps correctly. See the JavaScript console for technical details.

## **Conclusion:-**

Hotel management system now-a-day have the advantage of modernisation. Computer have done the work more easy. Computer is playing a important role in management. Reports are made on daily basis for every customer check in or check out which can easily be seen by the management. Hotel management system has also primary purpose is to provide facilities to customers. A software for computers makes the things many times easy, these are made as user friendly and to keep an check and balance in hotel management and accounts as well. So ,these things are important.

## **Future Scope:-**

At present this website does not contain Credit Card facility. We can make this website as online so that we can reserve the tables and do the online payment. So as the demand increases we can add these modules as a future scope.