FULL STACK PROJECT

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Project Report



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Declaration

I/we hereby declare that the work which is being presented in the Bachelor of technology. Project "OPULENT-Resort Website", in partial fulfilment of the requirements for the award of the *Bachelor of Technology* in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of my/our own work carried under the supervision of Mr. Pankaj Kapoor, Technical Trainer, Dept. of CEA,GLA University.

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

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Certificate

This is to certify that the project entitled "OPULENT-Resort Website", carried out in FullStack Project – I, is a bonafide work by Ashita Goyal, Bharti Gautam, Naina Agrawal and Nandani Bansal and is submitted in partial fulfillment of the requirements for the award of the degree Bachelor of Technology (Computer Science & Engineering).

Signature of Supervisor:

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ACKNOWLEDGEMENT

The satisfaction which accompanies the successful completion of the project is incomplete without the mention of a few names. I take this opportunity to acknowledge the efforts of the individuals who helped me to make this work possible.

We owe special debt of gratitude to Mr. Pankaj Kapoor, Technical Trainer, for his constant support and guidance throughout the course of our work. His sincerity, thoroughness and perseverance have been a constant source of inspiration for us. He has showered us with all his extensively experienced ideas and insightful comments at virtually all stages of the project & has also taught us about the latest industry-oriented technologies.

We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and cooperation during the development of our project. Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

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ABSTRACT

We have created a Resort System Website which is based on user interface that is front end project which can be used by the customers to access the different types of rooms according to their needs and other facilities of the resort which includes banquet hall, restaurant service, rooftop pool service, etc .Resort Website, as described above, can lead to error free, reliable and accessible website. In our website we have included all the relevant details that user wants to access while searching for a resort, it has all valuable data or information. Also if user has any query regarding any service they can send us the message for the website. No formal knowledge is needed for the user to use this website. Thus by this all it proves it is user-friendly. In our project, the website that we have made is fully responsive which helps user to access it on any device or at anytime, anywhere. This application will help to improve services for tourists and also improve the revenue source for our resort.

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INTRODUCTION

This project is aimed at developing an online static website for a Resort which can be used by customers to get the detail of the resort, reserve rooms according to their choice, order food from our resort's restaurant, contact details, address, images and other facilities online. The website is based on html, CSS, Bootstrap and JavaScript. This will help user to avail the all the facilities of resort at any time and place. Users can see the required articles or Customer's feedback about the resort on the homepage and can know every detail about the resort before even arriving there. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Our Resort website can lead to error free, reliable and accessible. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy users who are always on the go, our systems come with access features, which will allow you to manage your workforce anytime, anywhere. This system ultimately allows you to better manage resources.

Our website will contain Home page where all the basic information about the resort and images of our resort will be available. And various other pages are linked to the website i.e. About Us page, Facilities Page, Faqs page and Contact Us page, Blog Page. This Responsive site is easy to operate and user friendly.

Motivation:

In the present time there is a great rush in Resorts, as these have become necessity for everyone in the society. People travel a lot, stay in hotels and resorts, goes to the hotels for functions, meeting and refreshment. Our project is developed keeping in mind the general needs of the customers when he goes to the resort. We cannot deny that we are now in much more technologically improvement and especially for business, shifting from manual process to online. The motive of our project is to control various activities performed. From the beginning, the important thing in our mind is that we should concentrate our project work on a subject that is easy to understand and is according to the user need. By keeping this in mind, subject chosen by us is Resort System website

Objective:

Providing customer satisfaction is the main objective of our project. And we have also been taking care of the expectations of the users when they search for some resort for their holiday or any other event. It focuses on giving the costumer all the information about the resort, photos of resort and also help them to see various room in the resort and book them in advance ,various other pages are About Us page, Facilities Page, Faqs page and Contact Us page, Blog Page. If any customer is willing to come to the resort, he/she can see the facilities available and can know cost effectiveness of the resort online. This will also save time of our customer as well as management by booking online instead booking at spot. The resort system project main idea is to develop an online web based application which is accessible for all and to create a scope for visiting tourists from different geographic locations. This project intends to introduce more user friendliness in the various activities.

Advantages of Proposed System:

- Saves time of customers in quickly reserving all the facility of resort.
- The ability to book rooms anytime, from anywhere with Internet access.
- Provides the information about resort facilities.
- User friendly interface.
- No Convenience fees.
- Total features of resort are accessible.
- Direct communication to the resort (not through 3rd party websites).
- Accessible in every area where internet is present.
- Very secure and requires less resources.
- Easy to use and simple to understand.
- Quick and save lots of time.

Limitations of the System Proposed:

Besides the above achievements, we still feel the project has some limitations, listed as below:

- Limited information provided by this system
- Since it is an online project, customers need internet connection
- People who are not familiar with computers or using online websites can't use this software
- Heavy traffic leads to failure or long wait issues

TECHNOLOGY USED

Web Development:

Web programming, also known as web development, is the creation of dynamic web applications. Examples of web applications are social networking sites like Facebook or e-commerce sites like Amazon.

Web development is a specific field of software engineering that focuses on building web pages. Web pages, or web apps, are codebases that are downloaded and run in our web browser (e.g., Google Chrome) each time a user navigates to the website address. This differs from other software which is usually downloaded once and run as a standalone application on your computer or phone. We can also think of web development as being split into two main categories: front end and back end.

Front end is what we see when we open a web page or app. Code is downloaded from a server and is rendered to the screen by a web browser. What happens when we interact with the code is also considered front end. This is often referred to as the 'Presentation Layer' or 'Client' in software development terms.

The front end is built out of three languages: HTML, CSS, and JavaScript.

TOOLS AND LANGUAGES:

<u>HTML</u>: Hyper Text Markup Language is the standard language for creating documents for the World Wide Web. An HTML document is a text file, which contains the elements, in the form of tags that a web browser uses to display

text, multimedia objects, and hyperlinks using HTML; we can format a document for display and add hyperlinks to other documents. The user interface has been designed in HTML hence can be browsed in any web browser.

HTML code ensures the proper formatting of text and images so that your Internet browser_may display them as they are intended to look. Without HTML, a browser would not know how to display text as elements or load images or other elements. HTML also provides a basic structure of the page, upon which Cascading Style Sheets are overlaid to change its appearance. One could think of HTML as the bones (structure) of a web page, and CSS as its skin (appearance).

<u>CSS</u> (<u>Cascading Style Sheets</u>): 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 colour of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colours are used, layout designs, and variations in display for different devices and screen sizes as well as a variety of other effects.

CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

Advantage of CSS

CSS saves time – We can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.

Pages load faster – If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.

Easy maintenance – To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

Superior styles to HTML – CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.

Multiple Device Compatibility – Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.

Global web standards – Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

BOOTSTRAP: Bootstrap is a web framework that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of colour, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark colored tables, page headings, more prominent pull quotes, and text with a highlight. Bootstrap also comes with

several JavaScript components in the form of jQuery plugins. They provide additional user interface elements such as dialog boxes, tooltips, and carousels. Each Bootstrap component consists of an HTML structure, CSS declarations, and in some cases accompanying JavaScript code. They also extend the functionality of some existing interface elements, including for example an auto-complete function for input fields.

JAVA SCRIPT (JS): JavaScript often abbreviated as JS, is a high-level, interpreted programming language that conforms to the ECMAScript specification. It is a programming language that is characterized as dynamic, weakly typed, prototype-based and multi-paradigm.

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.

Although there are similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design. JavaScript was influenced by programming languages such as self and Scheme.

VISUAL STUDIO: Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js and C++. It is based on the Electron framework, which is used to develop Node.js Web applications that run on the Blink layout engine. Visual Studio Code employs the same editor component (codenamed "Monaco") used in Azure DevOps (formerly called Visual Studio Online and Visual Studio Team Services).

Instead of a project system, it allows users to open one or more directories, which can then be saved in workspaces for future reuse. This allows it to operate as a language-agnostic code editor for any language. It supports a number of programming languages and a set of features that differs per language. Unwanted files and folders can be excluded from the project tree via the settings. Many Visual Studio Code features are not exposed through menus or the user interface, but can be accessed via the command palette.

Visual Studio Code can be extended via extensions, available through a central repository. This includes additions to the editor and language support. A notable feature is the ability to create extensions that add support for new languages, themes, and debuggers, perform static code analysis, and add code linters using the Language Server Protocol.

SOFTWARE DESIGN

A software design document (SDD) is a written description of a software product, that a software designer writes in order to give a software development team overall guidance to the architecture of the software project. An SDD usually accompanies an architecture diagram with pointers to detailed feature specifications of smaller pieces of the design. Practically, a design document is required to coordinate a large team under a single vision. A design document needs to be a stable reference, outlining all parts of the software and how they will work. The document is commanded to give a fairly complete description, while maintaining a high-level view of the software.

System Requirement

Computer System is made up of units that are put together to work as one in order to achieve a common goal. The requirements for implementation of the new system are:

- The hardware
- The software

Hardware:

• Processor: Intel i5

• RAM: 8 GB

Hard disk: 256GB

Software:

- Microsoft Windows 7/8/10 or Linux
- Vs Code or any other text editor
- Chrome or any other browser

SOURCE CODE AND LIVE LINK

The source code of our project is available at the following link:

https://github.com/naina2910/FullStackProject

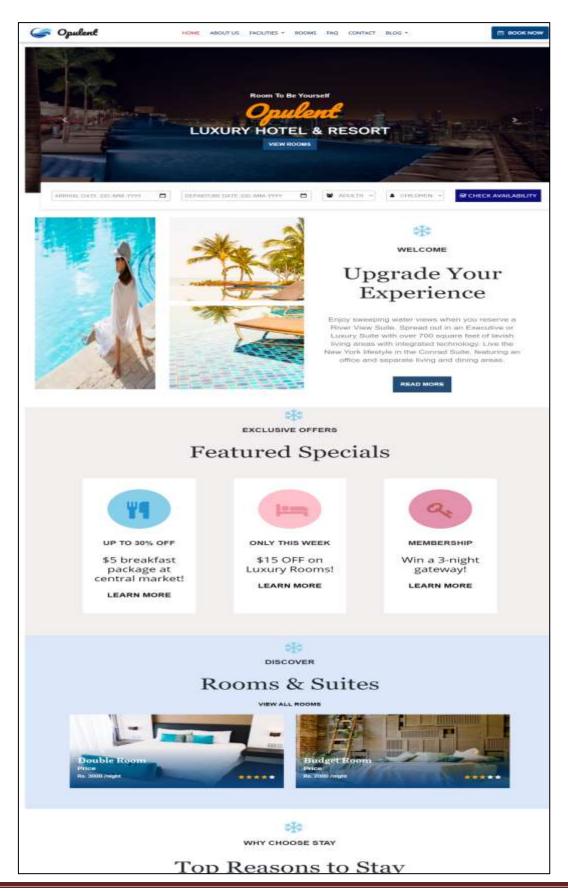
The live link of our website is:

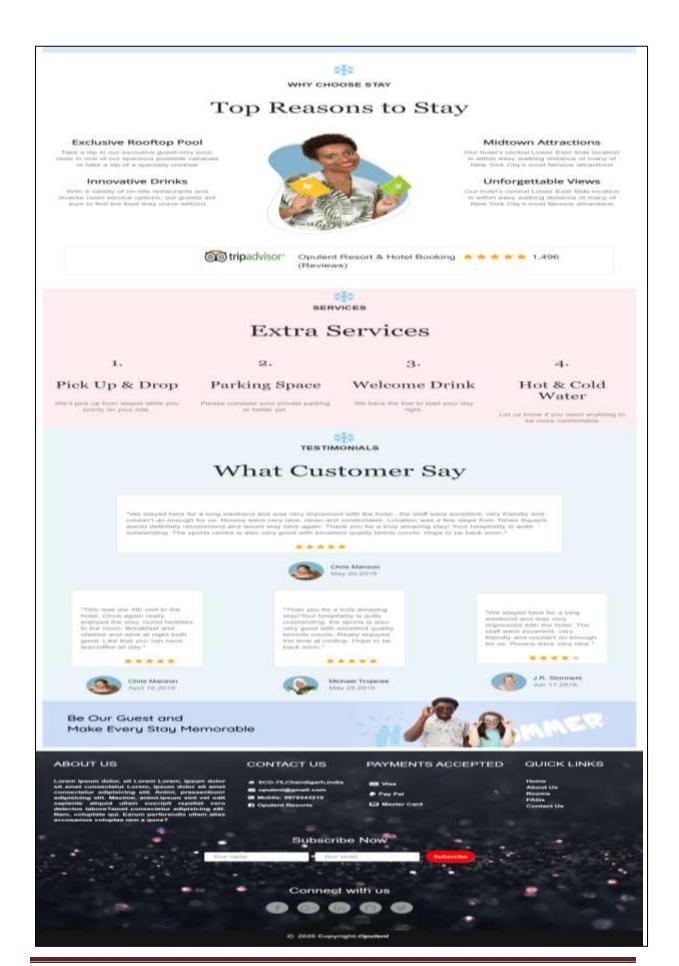
https://naina2910.github.io/FullStackProject/

IMPLEMENTATION AND USER INTERFACE

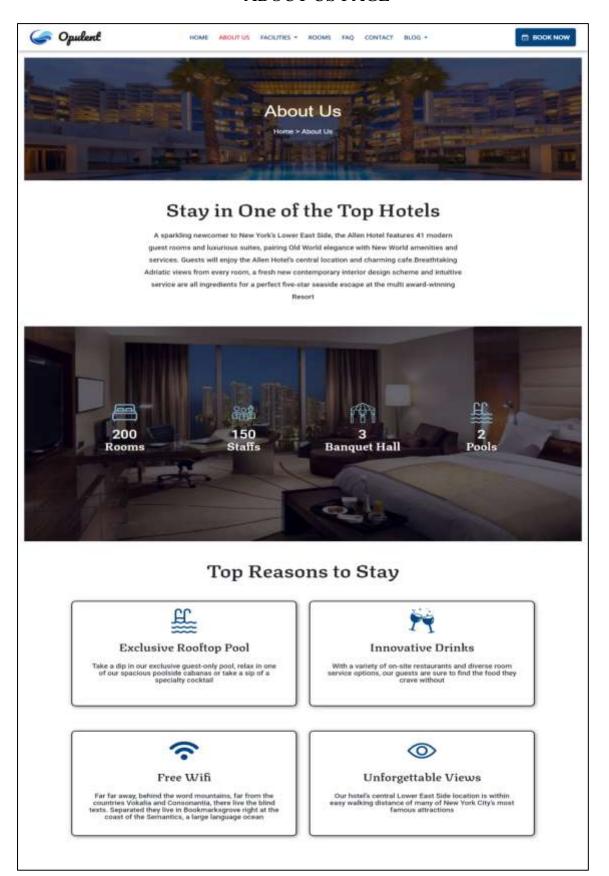
The user interface design was one of the core tasks in this project. The aim of UI design is to make the application to be accepted and used easily by users. The main UI will be shown next.

HOME PAGE





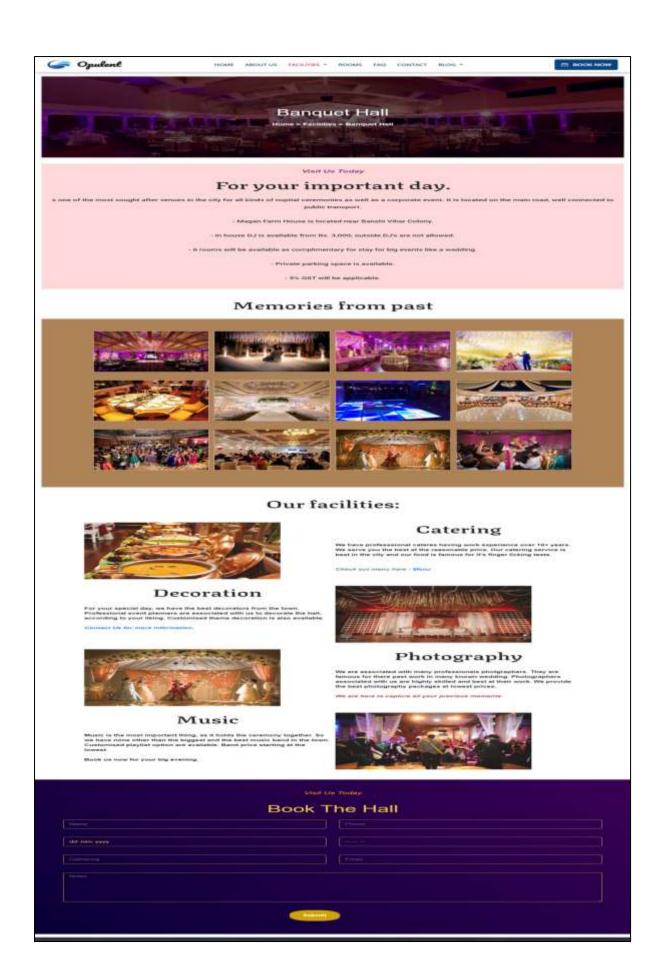
ABOUT US PAGE



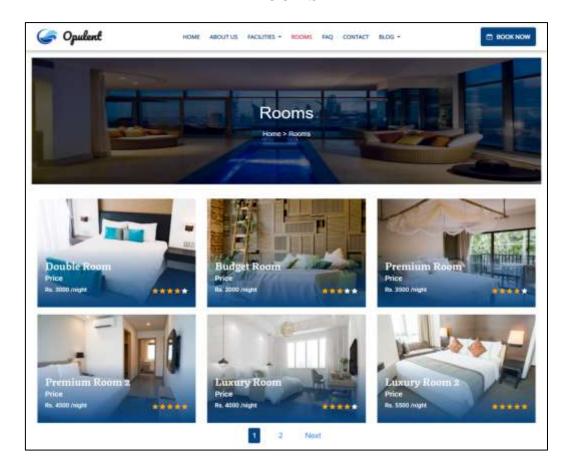
FACILITIES



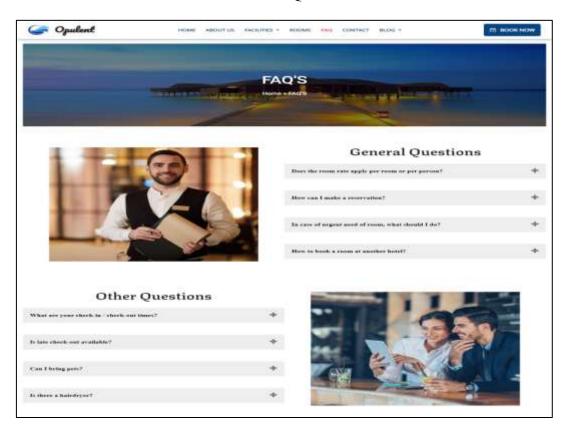




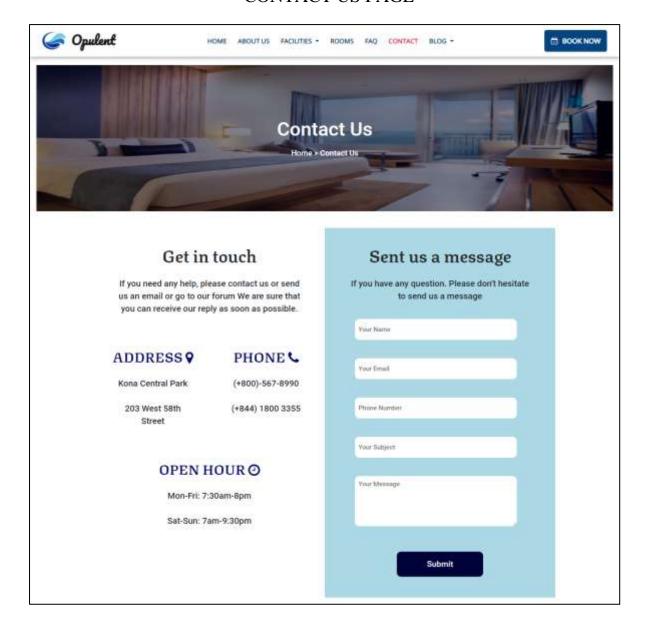
ROOMS



FAQ

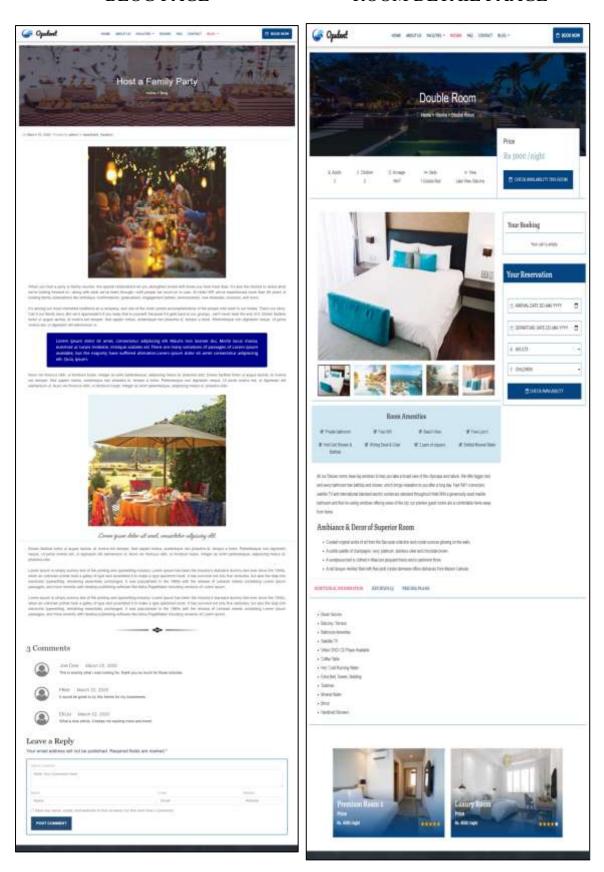


CONTACT US PAGE



BLOG PAGE

ROOM DETAIL PAAGE



FUTURE WORK

Every project has some scope for future work. Hence, some of the tasks that can be done in future to make our website more efficient and advanced are as follows:

- Adding Back End for proper functioning of the website.
- Expanding the project in different location around the globe.
- Keep on changing User Interface to make it look more attractive with time.
- Making servers more powerful.
- Transforming this to a mobile application for better portability.
- Expanding the databases for storing more customers information.

CONCLUSION

We have prepared a full-fledged working website on named Opulent – Luxury Resort in Mathura. It is a website based on Resort Management system and displays various facilities and services offered by the resort. We have displayed various features of our resort like hotels, rooftop, spa, swimming pool, banquet hall, etc.

The central objective of our website is to provide online facility for accessing all the services of our resort. We have created a platform where customers can directly communicate with us and can overcome with the problems of manual system and third party platform issues.

This software aims at reducing paper work and provides multiple facilities to user with less effort. User can access the portal according to choice and availability.

REFERENCES

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- https://getbootstrap.com/
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