ONLINE PG RENTING WEBAPLICATION

PROJECT SYNOPSIS

OF MAJOR PROJECT

BACHELOR OF TECHNOLOGY

KIET Group of Institutions, Delhi-NCR, Ghaziabad

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DECLARATION

We hereby declare that this submission is our work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.

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<u>ABSTRACT</u>

The project aims to create a user-friendly and efficient website that provides a comprehensive solution for individuals seeking paying guest (PG) or room rental accommodations. The website will be developed using a combination of HTML, CSS, JavaScript, ReactJS, and NodeJS, which will ensure a smooth and interactive user experience.

The website will have a search feature that allows users to search for suitable accommodation based on their preferred location, budget, and other requirements. Users will also be able to view detailed information about each listed accommodation, such as the number of rooms available, facilities provided, and more.

In addition, the website will also have a booking system that enables users to securely book their chosen accommodation online. The website will also feature a payment gateway for seamless and secure transactions.

The project aims to provide a one-stop solution for individuals seeking PG or room rental accommodation by bringing together various options under one platform and making the booking process quick and easy. The website will also help to eliminate the hassle of traditional offline methods of searching for accommodation, thereby saving time and effort for users.

<u>INTRODUCTION</u>

The demand for affordable and convenient housing solutions has been on the rise in recent years, with paying guest (PG) and room renting services becoming increasingly popular. With the fast-paced lifestyle and the high cost of owning a home, many individuals are looking for flexible and cost-effective living options. This project aims to meet this growing demand by developing a comprehensive website for PG and room renting services. The website will provide a user-friendly platform for individuals to search for and book suitable accommodations.

The website will cater to the needs of two distinct groups of users: those looking for a place to stay and those looking to rent out their properties. For individuals searching for accommodations, the website will provide a comprehensive database of available properties with detailed information, including the location, amenities, and pricing. The search function will be designed to allow users to filter properties based on their preferences, such as the location, type of accommodation, and budget.

For property owners, the website will provide a platform to list their properties for rent and manage their listings. This includes uploading images, setting pricing, and managing bookings. The website will also include a payment gateway to enable secure online transactions.

The project aims to provide a one-stop solution for all PG and room renting needs, making the process of finding and booking a suitable accommodation faster, more convenient, and more efficient. The website will be developed using HTML, CSS, JavaScript, ReactJS, and NodeJS, ensuring that it is fast, reliable, and user-friendly.

In conclusion, this project aims to make a significant contribution to the online PG and room renting space by providing a comprehensive solution that caters to the needs of both individuals looking for a place to stay and property owners looking to rent out their properties. The use of cutting-edge technologies and a user- friendly design will make the website a valuable resource for those in need of affordable and convenient housing solutions.

CASE STUDY

A case study is an important component of this project as it will provide valuable insights into the functionality and usability of the website. The results of the study will be used to make improvements to the website and ensure that it meets the needs of users.

The case study will be conducted by carrying out user tests and collecting feedback from users who have used the website. The user tests will consist of having users perform various tasks on the website, such as searching for properties, making a booking, and making a payment. During these tests, the user's interactions with the website will be observed and recorded, and they will be asked to provide feedback on their experience.

The collected data will be analyzed to determine the strengths and weaknesses of the website, as well as areas for improvement. The results of the study will be used to make changes to the website design, functionality, and user experience.

In addition to the user tests, the case study will also include a review of website metrics, such as page views, conversion rates, and user engagement. These metrics will provide valuable insights into the overall performance of the website and will be used to make data-driven improvements.

In conclusion, the case study is a crucial component of this project as it will provide valuable feedback from users and enable the website to be improved and refined to meet their needs. The results of the study will ensure that the website is user-friendly, efficient, and effective in meeting the needs of individuals looking for affordable housing solutions.

This matches the structure and format you provided while maintaining the original content of your case study.

OBJECTIVES

To develop a user-friendly website for PG and room renting services that is accessible to a wide range of users.

To create a comprehensive database of available properties with detailed information, including location, amenities, and pricing.

To provide a search function that allows users to filter properties based on their preferences, such as location, type of accommodation, and budget.

To enable property owners to list their properties for rent and manage their listings, including uploading images, setting pricing, and managing bookings.

To incorporate a secure online payment gateway to facilitate safe and secure transactions.

To use cutting-edge technologies, such as HTML, CSS, JavaScript, ReactJS, and NodeJS, to ensure that the website is fast, reliable, and user-friendly.

To conduct a case study to evaluate the functionality and usability of the website and use the results to make improvements.

To make a significant contribution to the online PG and room renting space by providing a comprehensive and convenient solution for individuals looking for affordable housing options.

METHODOLOGY

- **Requirement Gathering and analysis** − All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

- **System Design** − The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.

- **Implementation** − With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.

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- **Integration and Testing** − All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

- **Deployment of system** − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.

- **Maintenance** − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

TECHNOLOGY

i. Web Technology: PHP, Node.js.

ii. Development Tools: JavaScript, HTML, Tailwind CSS, Ajax.

iii. Software: XAMPP, Visual Studio Code, Adobe Photoshop.

iv. Web Server: Apache.

v. Web Browser: Chrome, Firefox, Edge.

vi. Operating System: Windows 10/11, macOS, Linux.

vii. Database: MySQL, MongoDB.

viii. Security: SSL/TLS, modern authentication (OAuth, JWT).

ix. Deployment: Cloud-based services, AWS, Azure.

x. Performance: Lazy loading, caching, minimizing HTTP requests.

xi. SEO: Implement SEO best practices.

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