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Implementation & Development of an Application for Room Searching

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Abstract: ***The room rental issue is one of the elemental parts of society. Nowadays, it is extremely difficult to find suitable accommodation in city areas if people search for it physically. An online common platform can play a vital role in this case. The purpose of the study is to develop a common web-based online platform for both tenants and room owners so that both tenants and room owners will mutually benefit from the system. Our website helps the people to find a budget friendly and mid-range room by area, location, price and other criteria. They can view photos of rooms before renting and also share rooms with other people to save money on rent and utilities. It also provides a mess service, where students can get mess services located within the area, also our website provides information about the Restaurant in each area. The mess service is a convenient way for people to get their meals delivered to their rooms.***

In our website, the chat app services features for both room owner and users, so they can communicate with each other. Instead of relying on emails or phone calls, users can instantly chat with room owners to clarify questions, negotiate specifics. This improves responsiveness and reduces communication delays. A new era of education and research based on chatbots. A chatbot can be a valuable asset for room searching, in this chatbots can answer frequently asked questions about rooms, this can be time saving. The Google Geolocation help the users, so they easily find the rooms, mess services and even connect with the people travelling on similar routes. Overall, Room Dhundo is a valuable resource for people who are looking for a place to stay in India. The website is easy to use, affordable, and offers a number of features that are specifically designed for peoples.

I. INTRODUCTION

Room Dhundo is an innovative online platform that caters to the accommodation needs of people in India, and the best part is it eliminates troublesome brokerage charges. In today's fast-paced world, finding affordable and suitable rental rooms, flats, or PG accommodations has become a top priority, making Room Dhundo an invaluable service. To get started, individuals looking for accommodations can use the user-friendly Room Dhundo website. They'll be prompted to provide some important information like their preferred rental dates, the type of accommodation. They are looking for, and where they'd like to stay. Once these details are provided, they'll need to provide a valid identification card, ensuring a safe and reliable rental process. Room Dhundo offers a wide variety of rental options, including modern homes, colonial-style residences, apartments, and more. This diversity empowers customers to choose accommodations that fit their budget and personal preferences. The availability of these options may vary depending on when you book, giving you some flexibility in your choices. With a strong commitment to making the rental process convenient and cost-effective, Room Dhundo is an invaluable resource for those searching for rental pg. 2 accommodations in India. It streamlines the entire process, efficiently connecting tenants with the living spaces they desire while also eliminating the complexities of brokerage charges.

In a world that's constantly changing, Room Dhundo is a symbol of efficiency. It not only provides a platform for finding accommodations but also offers a path to a more seamless and affordable housing solution. Its user-focused approach and dedication to enhancing the tenant experience make it an essential tool for anyone in India looking for rental accommodations. Room Dhundo's user authentication system plays a crucial role in ensuring user privacy, security, and a smooth user experience. The most common method is used here account creation requires your email address, a strong password for security, and optionally, a username and full name for personalization. Allow users to login with their registered email address and password. Users can request a password reset link sent to their registered email address. This link should lead to a secure page where they can create a new password. Integrating a chat app into Room Dhundo offers valuable features for both users and landlords, fostering a more interactive and efficient experience. Users can directly communicate with landlords to clarify questions about rent, amenities, or viewings, significantly reducing waiting times compared to email. Landlords can pre-qualify potential tenants through chat, saving time and effort in the screening process. Additionally, Room Dhundo's review system allows users to leave feedback on rooms, creating a more transparent and informative platform for everyone.

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Chatbots are your new best friends for finding the perfect place. Chatbots answer your questions in a flash, saving your lot of time. Landlords, upload high-quality photos and videos of your rooms along with the location, rent, and a detailed description.

Room Dhundo now has an "Add Item" feature! People interested in selling furniture, appliances, or other items like coolers can list them alongside their room. Food is the most necessary thing for the survival of the living beings, it gives energy, help in development and maintaining of life or stimulating growth. It plays a key role in the growth of human body and affects our physical and mental health. As the people are moving towards the cities due to their economic and social infrastructure development, with the motive either to get education or employment. Therefore, they have to live away from their home, for doing their study or preparing for competitions or doing their job and do not get enough time to prepare food for themselves. Since readily available street food (Junk Food) often compromises health, mess services offer a convenient solution. This website helps you find mess services and restaurants near your room and throughout the city. Room Dhundo now uses map magic to help you discover nearby rooms, food options, and even connect with fellow travellers. Room Dhundo simplifies room searching for users, making it an easier and more convenient way to find their perfect place without dealing with brokers. Traveling often means finding good food too. Room Dhundo doesn't stop at rooms – it uses maps to show you mess services and restaurants close by, saving you time searching and letting you focus on exploring. Room Dhundo connects you with other users exploring the same area, allowing you to find travel companions, share tips, or simply make new friends on the go.

II. OBJECTIVE

Room Dhundo is on a mission to redefine the rental accommodation experience in India by addressing key objectives tailored to meet the needs of its users:

1) Provide affordable accommodation listings in India without brokerage charges.
2) Implement strong user authentication for a safe and seamless user experience.
3) Display detailed information about accommodations, including photos, reviews, and amenities.
4) Enable users to add, edit, search, and delete data from the dataset.
5) Introduce a new "Add Items" feature for users to list furniture, appliances, and other items within their rooms.
6) Include a built-in chat app for easy communication between users.
7) Integrate a Chatbot for quick answers, generated from AI technology.
8) Connect users with convenient dining options through mess service listings.
9) Facilitate travel connections by using geolocation to find friends on similar routes or staying nearby.

III. PROBLEM STATEMENT

Finding a good place to live is really tough for people. It's even harder now because there are more people looking for housing. The current ways of finding housing are not working well anymore. Students have to deal with a lot of stress and confusion because there are so many options, and they have to decide quickly. This rush is made worse by a lack of clear information about the rooms, facilities, and whether the landlords can be trusted. Because of this, students in their early college years can't focus on their studies or personal growth. This housing problem is causing big issues. Students feel a lot of pressure and frustration, and it's affecting their studies and emotional well-being. It's really important to fix this problem to make sure students have a good experience while studying. It will help students feel more confident, allowing them to focus on their studies and personal development without worrying about finding a place to live.

IV. LITERATURE SURVEY

K. Aminuzzaman et al [1], a web-based homestay or rental service called Home Sharing would be available for Bangladeshi tourists. Our website will serve as a platform to match individuals looking for a place to stay with those ready to rent out their rooms. None of the properties will be owned by our platform. Our website will be specifically designed for tourism purposes and will be responsive and user-friendly. Our website was created using HTML, CSS, Bootstrap, JavaScript, and CSS for the front-end and PHP and MySQL for the backend. For individuals who are travelling somewhere for the first time, our website will be much more useful as they may use it to find the best available home stay at a reasonable price.

In the paper [2] Sahreen Afzal et. al This will include Baseline Study Methodology and Software Design Methodology. 1. Baseline Study Methodology: Landlords will upload the data regarding their property and the tenants can check the available rooms according to their comfort. Structured Query Language (SQL) and PHP will be used to collect data and store in databases. 2. Software Study Methodology: The software/website will be developed for common users by using web designing languages like html, CSS, bootstrap etc. It consists of 3 parts: Client Web Server Database Server.

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Arora [3] found in this study that tiffin service is an emerging sector of the economy and plays a significant role in the current scenario. Visionary people are entering this sector due to its increasing demand and they are perceiving the wants of consumers due to their hectic lives. The finding of this empirical research suggests that the success of tiffin service depends on varied factors like quality food at a reasonable price and timely delivery of tiffin. Tiffin service provider must promote their services very effectively.

Ganapathy [4] conducted an empirical study to determine the feasibility of introducing the dabbawalla delivery service model of Mumbai in Bengaluru and found that there is need and demand for homemade food is growing but the exact replication of the dabbawalla delivery system is not possible due to cultural and infrastructural difference between them.

The famous taxi-hire application “Taxifares” [5] on the Android platform is the first car sharing application that took the initiative and introduced Carpooling for “Vacationers”. i.e. for those who are on vacation and want to spend less on traveling to save their pocket. They started it for some routes only like “Chandigarh-Delhi”, “Mysore-Manali” etc. and they are looking forward to reaching out to the masses in the coming future.

In 2019, "Designing and deploying a real-time web-based chat server" by Diotra Henriyan, Devie Pratama Subiyanti, and Rizki Fauzian [6] and published by the International Conference on Engineering and Technology (ICSET). This research paper contains that chat apps should be a real-time forum and multi-site for use by many users. The programming language used to build the Node.js server with a clear framework and MongoDB website.

In 2020, Jhalak Mittal, Arushi Garg, and Shivani Sharma [7] published "Online Chat Request" in the International Journal of Research in Engineering, IT, and Social Sciences (ISSN 2250- 0588). The research paper focuses on enhancing the security of speech requests using modern techniques and XSalsa20 encryption, ensuring message privacy even if the device is compromised. It offers high security, performance, and battery life, making it ideal for mobile phones.

In 2020, “an Intelligent Chatbot System based on Entity Extraction using RASA NLU and Neural Network” by Anran Jiao [8]. This paper focuses on designed a chatbot to answer questions on finance based on recognizing the intent by using the RASA NLU framework along with integration of neural networks.

Rohit Tamrakar and Niraj Wani in [9] conduct a detailed review of the history and different types of chatbot technology along with the processes detailing the design and development of chatbots while presenting the general architecture used.

In this paper, user authentication [10] that verifies the identity of the user of a computing device or an online service. User authentication to verify the identity of the user, is essential in the digital world so as to protect the user’s personal data stored online and on personal devices and to also enable customized services in smart spaces.

In 2016, Mohammed Farik, Nilesh A. Lal, Shalendra Prasad [11] published a “Review of Authentication Methods” in International Journal of Scientific & Technology Research. This paper focuses on user authentication, which is the process of granting a user access to an information system by validating their identity. It is a crucial aspect of Room Dhundo, a Python-based application designed for finding rooms and connecting with roommates.

V. FLOWDIAGRAM

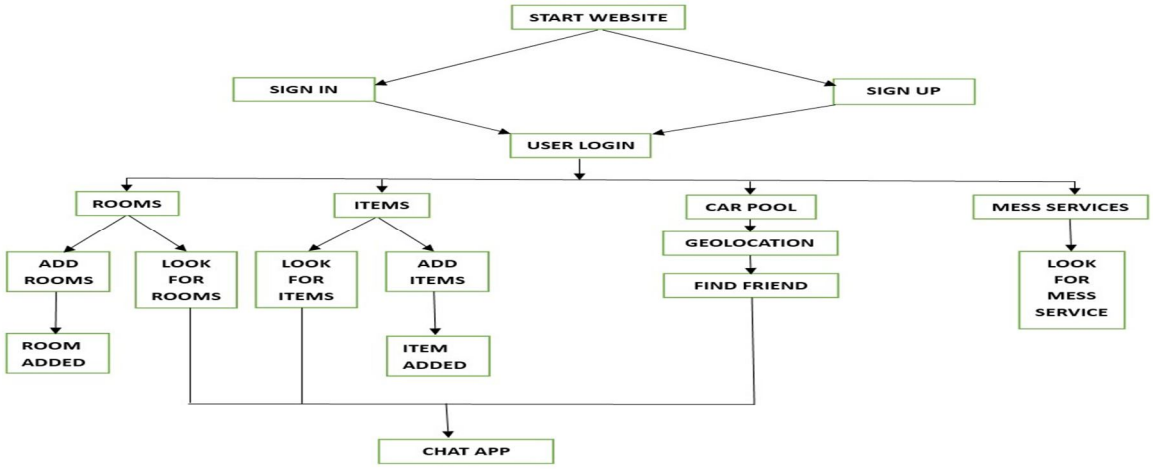


Fig.1 Flow diagram

VI. FUTURE SCOPE

Room Dhundo can reach more people by opening in new cities and countries. This helps them find new customers and grow their business. They can offer different types of places to stay, like cheaper options for budget-conscious travellers and fancy places for those who want a luxury experience. By having a variety of accommodations, Room Dhundo can attract different kinds of travellers with different needs and budgets. This way, more people can use their services, and the company can stay competitive in the global hospitality industry. Room Dhundo aims to be a welcoming platform for travellers all around the world, offering diverse options to suit everyone's preferences and pockets.

VII. RESULT

The Room Dhundo website is a helpful online tool for people looking to rent rooms. It's user-friendly, making it easy for tenants and landlords to connect and book rooms smoothly. The website has a large selection of available rooms, and more and more people are using it. This has made the process of renting a room much easier and transparent. Room Dhundo benefits both tenants and landlords by creating a convenient platform. Tenants can easily find suitable rooms, and landlords can fill their vacancies efficiently. The website not only simplifies the room-searching process but also fosters good relationships between renters and property owners. It's a valuable resource for anyone searching for a room to rent or landlords looking to rent out their spaces.

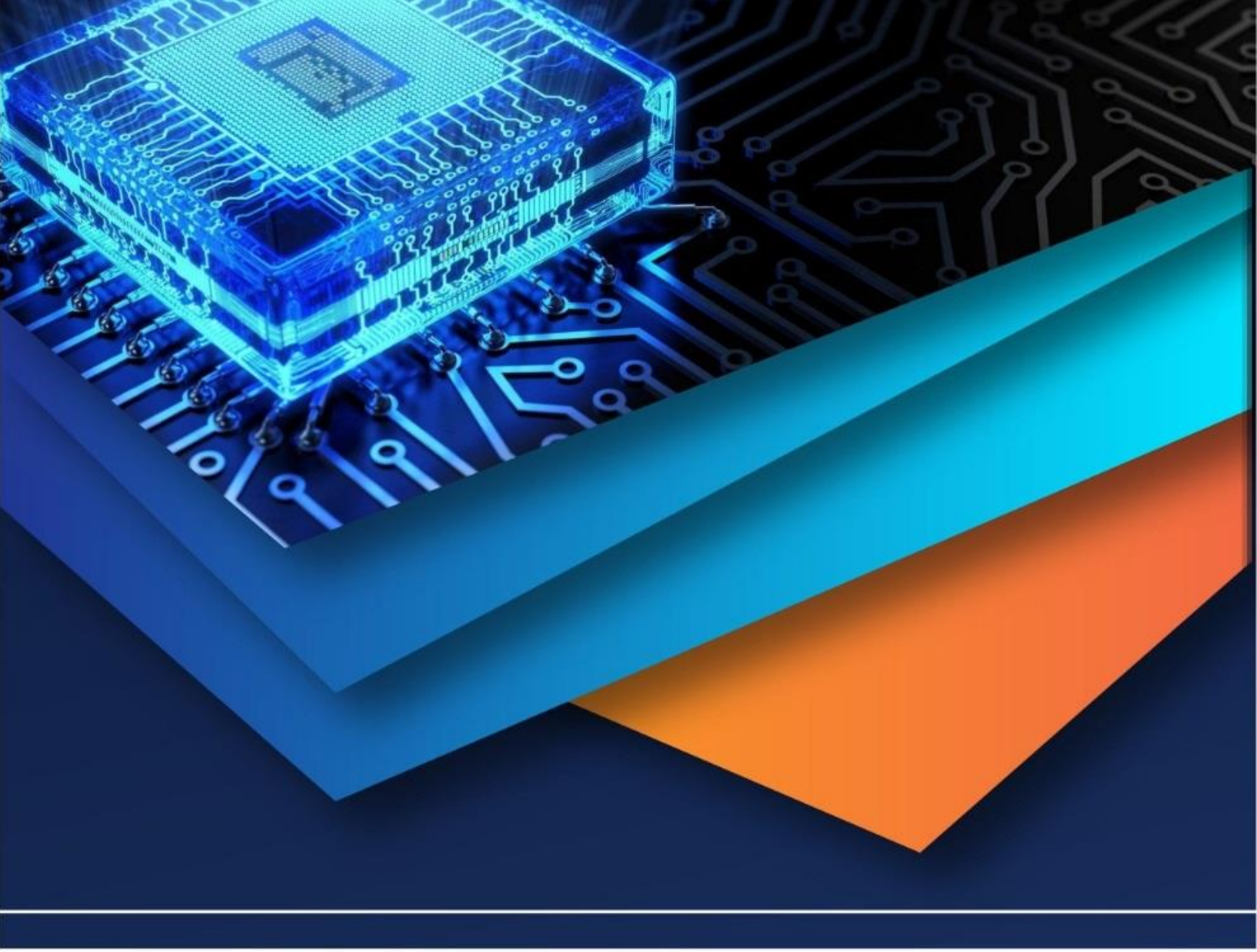
VIII. CONCLUSION

Room Dhundo transforms the student experience by making academics, personal growth, and real friendships a top priority. We go beyond just providing housing; our mission is to be deeply committed to sustainability, nurturing a welcoming and inclusive community, and promoting the well-being of all our residents. In our quest to achieve this vision, we want to give students the tools not only to do well in their studies but also to grow as individuals, becoming more resilient and discovering themselves. We create an environment where students can build lasting connections through support, teamwork, and a sense of belonging. Sustainability is a fundamental part of our approach, as we work to reduce our impact on the environment and inspire others to be eco-conscious. Our goal is to establish a complete, sustainable space where students can excel academically and personally while forming lifelong bonds in a caring and forward-thinking community.

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