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Room Rental Application

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Abstract :

In our fast-paced world, as we all know, it can be challenging to manage time for your everyday demands. In this situation, there is a pressing need for technical change and a need to embrace and value the power of cutting-edge technology. There is a critical situation to handle because everyone needs a shelter or home to survive. In some cities, it can be tough to find an appropriate rental time if you don't know anyone and wish to rent a house. Therefore, it is necessary to create a house rental management app that will make it easier for tenants and rental managers to complete all of their tasks quickly and effectively.

For the owner and property managers, it can be challenging to locate the renter in a timely manner. This app will give you all the information you need about rental homes. The renter will find it simple to research house locations, room needs, and other information. The landlords even have the option to upload or amend their property details at any time using this app.

Introduction:

Since it creates new opportunities and encourages the development of business rentals with wholly new contents and services to benefit the community, the rise of content and services related to information technology is currently inevitable. Searching a rental home has become a difficult task. However, these duties can be simplified with the aid of mobile application websites that can assist people in their home search. Because mobile apps can make this task simple in the age of smart phones. These smart phone applications make it simpler to look for a rental or a home to purchase.

Fortunately, the suggested technique can assist a tenant in identifying neighboring rooms as well as saving time and effort when looking for rental properties. By simply uploading images of their apartments, the programme could assist apartment and home owners in marketing their residences. The purpose is to create a room rental system for finding and searching accommodations. The community, especially students, can use this mobile, android-based app to conveniently find single rooms or entire flats, and it is accessible from anywhere. This application must have to be used with an internet connection.

It is simple to add the properties (room/s, flat/s), as well as tenant information, to the application. In a similar vein, upgrading the details is simple to do. All property owners using this programme must register in order to add and maintain a record of their properties and tenants. The home or property owner can log into the system using their registered email address and password after registering in the application. Additionally, it can aid property owners in business promotion. It encourages the use of smart technology.

Literature Survey:

S. R. Manalu et al [1], Traditionally, if someone needs to find a boarding home or other type of room rental, they will call the management of the boarding house and then visit the location. It takes time and effort to do this. Android applications are created to streamline the procedure and make it simpler. The application's chat capability and push notifications are crucial components that allow users to obtain more and current information from management. But as of right now, there isn't a smartphone application for renting a room or a house that has push notifications and built-in messaging. To provide information about boarding places and evaluate it, this study aims to create a smartphone application with chat and push notification features. Login, see boarding rooms list, view detail, review, view map, chat, and broadcast information are among the features designed for this application. An analysis reveals that the app is helpful for communicating between room searchers and building managers and for providing information about boarding houses.

K. Aminuzzaman et al [2], 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 back-end. Home sharing-like websites do not yet exist in Bangladesh. Although they have not yet reached most of the country, Airbnb is currently moving closer. 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.

Q. Zhou et al [3], the value chain of the conventional hotel sector is being rebuilt by Airbnb, a recently launched internet accommodation service that enables home and apartment owners to rent out their properties to transient tenants like tourists. It functions as a platform that links hosts and guests and enables their engagement and communication. Understanding the sharing economy from a user-centric standpoint may be made easier by researching this service. In this study, we compile the online reviews that 43.8 million Airbnb users have left and analyse those reviews. We employ a review graph to simulate how Airbnb users interact with one another, and we look into their reviews to learn more about their travel habits.

M. Abdar et al [4], travelers frequently use the sharing economy, which has grown to be the most well-liked platform worldwide. One of the most popular websites for short-term lodging rentals across the globe is Airbnb. Through the use of statistical data analysis and the Rating Matching Rate (RMRate) techniques, the primary goal of this study is to examine crawling data pertaining to the nations with the most listings on various continents. The country, room type,

and property type have been chosen as the three primary factors in the current work that are related to the number of stars and location. With the exception of the United States and Spain, we discovered that the three main property categories are apartments, houses, and bed-and-breakfasts.

Andy A. Lapada et al [5], the goal of this project was to create a website that will help the consumer locate lodging options such as rooms, boarding houses, and apartments for rent. This website allows users to add new accounts, compare accommodation rates, and receive real-time updates on the status of room availability. Planning, analysis, design, and implementation are the different steps of Rapid Application Development (RAD), which was used. The system was assessed using the software development usability scale from IBM. Both 4.63 and 4.64, the results of expert testing and end-user testing, can be considered as highly useable. The use of this system is therefore advised in light of the findings.

Rupali Burde et al [6], the current situation necessitates the creation of a single platform with lodging options. Individual entrance to any lodging facility is highly challenging. The proprietors and users of this website, Eatstay.in, may communicate through it. In this project, we're going to create a website that allows individuals to book accommodations online. Hostels, mess areas, and rooms/apartments are provided as amenities. Anyone can read the facilities' details, but only registered users are able to provide feedback, such as comments or ratings, making it impossible to falsely disparage any institution. With the owner's contact information, he or she can speak with them directly. Only registered users are able to make comments in order to prevent defamatory publication.

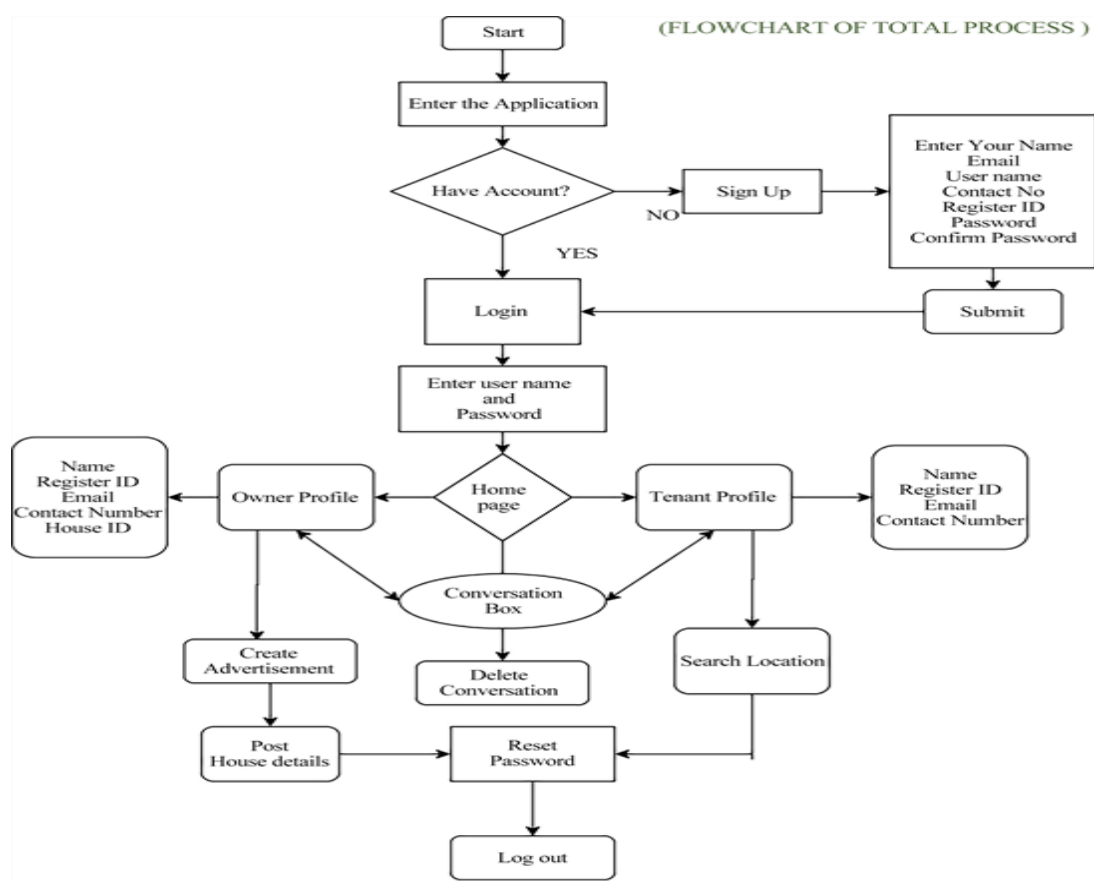
Existing System :

Currently the most property managers manage property and tenants details on papers. Once customers finds a vacant house, they can call or email manager of the houses indicating the size of the house they would like rented to them. The property manager can email them back giving them all the details about the house they are requesting. The details include; Rent per month Deposit paid Terms and conditions to follow acceptance. With the current system recording the details of various activities of user is completely manual and entails a lot of paperwork. The existing system only provides text based interface which is not as user friendly as Graphical user interface. Since the system is implemented manually, the response is very slow.

Disadvantages of Existing System:

1. Inconsistency in data entry, room for errors, miss keying information.
2. Large ongoing staff training cost.
3. System is dependent on good individuals.
4. Reduction in sharing information and customer services & Lack of security.
5. Time consuming and costly to produce reports.

Proposed System Block Diagram:



House Owner Panel:

In this panel, the house owner can see all the houses that he has put on the app for rent. He can also add new houses on the app. He has to add the basic details of the house like location and rent and number of rooms. Also he can add a new member (users) to a particular house that he has rented and can also see all the members.

User Panel:

In this panel, the user can see all the houses that are available on the app for rent. The user can click on any house to see more details of the house. He can also see all the members that have taken the house on rent right now. He can contact the owner and message him and also view the location of the house on the map.

Admin Panel:

In this panel, Admin can add or delete unnecessary data from the app, manage payment method and other settings.

Technology Used :

- Android Studio - It's a software to build android apps.
- Java – Java is an Object-oriented programming language.
- XML – XML is a designing language used for designing screens.
- Firebase – Firebase is a no-SQL storage device that will be used for storing the data.

Benefits of this Application :

- Cost: If you opt to rent a single room as opposed to an entire home dwelling, be that a townhouse or an apartment, you'll pay a lot less. The cost savings make renting a single room an ideal choice for students as well as others that are on a tight budget.
- You Can Afford to Live in a Great Location: When you rent a single room you can decide to live in a place that otherwise you'd be hard-pushed to afford. Perhaps the neighbourhood is regarded as being premier standard, because of its high standing, the cost of renting an entire home will likewise be premium. When you opt to rent a room you'll avoid that high cost.
- Relocate with Relative Ease: Homeowners must sell their homes prior to relocating. There are times when this process can take well over a year. For the most part, people that rent property may be locked into a year-long lease. Or the lease may be a whole lot shorter than that. Again, for the most part, a renter can escape the lease simply by providing the property owner advance notice of a month.

Conclusion :

Development of an online App based smart house renting system has been developed in this project. The system can provide an app that allows managers to conduct reasonable transactions within a limited time frame. This system is meant to satisfy the needs of rental house owners. Several user-friendly interfaces have also been adopted. Also, the location tracing system will be a major advantage for users as it will be easy to find the location of the house on a map. In addition, for the concern of security, this system has optimized secure and private data storage and verification system. This package will prove to be very powerful in satisfying all the requirements of the users.

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