

FYBA – FIND YOUR BEST APARTMENT

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Abstract - Now a days, searching for a rental house has become an energy draining task for all the people, since they should physically go and visit each and every place and check if there is any house available for rent. In order to reduce the effort, put by a person to find a house we came up with an idea of developing an android application which will be useful for the tenants who are in search of houses to relocate. This application will serve as a platform for tenants and owners. This app the contain all the details of the apartments present in a particular city. In this application the users will be able to search for the houses as per their preferences. All they need to do is just to fill up the preferences and submit and they will be given multiple options which match their preferences. The Owners module will be having an update option so that they can modify the details of the house whenever the house is available for rent. The tenants are provided with the options like call owner which make a phone call to the owner of a particular house from the app itself. They also have an option such as get location which locates the house on the google maps. Hence, this application will be useful for both the owners and tenants in many ways and will reduce their effort in searching for houses.

Key Words: Rental Houses, Tenant, Owner, Preferences, Call Owner, Get location.

1. INTRODUCTION

Imagine yourself in a city which you are not familiar and you need to search for a house to live in and will have to visit each and every area and check if there are any houses for rent. Just think how much effort you have to put in such an energy draining task. What if you are able sit in one location and can find all the houses that are available for rent, only those which match your preferences and be able to contact the house owner in case of queries and get the exact location of the house. How effortless it was!! Yes, it is possible with this android application.

This application contains details of all the houses that are available for rent in a particular city. It will be useful for both the owners and tenants. It helps to reduce the effort put by people to search for house. By just setting the preferences of the house the user will be able to get details of all the houses within fraction of seconds. This application can also be extended with the details of the commercial buildings for

rent in the city along with the residential houses. Hence people need not waste their time to visit the particular location and search for houses. They can do it easily with this application.

1.1 Motivation

Considering the problem faced by the people to search for rental houses in a city we thought of developing a mobile application for both the owners and tenants which serves as an intermediary platform between them. This application reduces the issues faced by owners of the house in renting their houses and henceforth there will be no house vacant in a city and tenants can get rid of the energy draining task of searching for a house physically visiting each and every location and check if there are any houses vacant.

1.2 Scope

The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between companies (services provider) and their customers of which Real Estate/House Rentals industry is not left out. This House Rental System is developed to provide the following services:

- **Enhance Business Processes:** To be able to use internet technology to project the rental company to the global world instead of limiting their services to their local domain alone, thus increase their return on investment.
- **Online House Searching:** The tools through which customers can search available House/Apartment online instead of walking around and asking for a vacant house.
- **Customer's registration:** A registration portal to hold customer's details, and their house details so that they can update the details whenever the house is vacant and available for rent.
- **Rentals Notice and Blog:** A tool where customers can see and view the details of nearby available House for rent/sale, and also able to contact the house owner via the app and can have access to google maps to get the exact location of the house.

1.2 Applications

One of the main applications of our app is to reduce the effort of house owners in renting their houses as well as to reduce the energy draining task of the tenants to go around in search of houses. Here the tenants can easily find the houses which matches their preferences and select the house which suits them the best.

2. LITERATURE SURVEY

2.1 Government Strategy and the Rental Control Act

The Government of India passed the Rent Control Act with the motive of controlling rent charges as well as to safeguard the tenants' rights in terms of unauthorized eviction. This law is determined by the state government but is formed on the foundation of certain rights that tenants and land owners enjoy.¹⁰ Laws that every tenant and owner in India must know:

1. A Written Agreement

It is essential to have a written agreement between tenants and owners for the law to safeguard the interests of both the parties. An oral agreement is not legally binding, and no one should ever settle for it.

2. Maintenance of the property

In the case that the tenants refuse to pay for the repairs, the amount can be deducted from their security deposit and if the owners refuse to pay, the amount can be deducted from the periodic rent.

3. Un inhabitable conditions

If the price of maintenance crosses 50% of the agreed rent, the house is considered to be 'uninhabitable.' If the owner refuses to act upon it, the tenant(s) have the right to vacate their premises with a 15-day written notice to the lessor. They can also approach the local Rent Authority to act upon the matter.

4. Damage of property after tenancy commences

Once the tenants occupy the house, they are responsible for maintaining the original conditions (again, except for the minimal, normal wear and tear). They cannot intentionally or negligently damage the property and if in the cases that such damage does occur, they must notify the owner immediately.

5. The landlord or landlady cannot enter the premises without prior notice.

Whether it is to carry out repairs, check the conditions of the house or any other reason stated in your rental agreement,

the owner cannot enter your premises without a 24 hour prior intimation.

6. Essential supplies

Essential services like the supply of water, electricity, parking, communication links, sanitary services etc. are the basic rights of tenants. These services cannot be cut off or withheld by either the tenants or the owners—even in the case of non-payment of dues.

7. Eviction of tenants

Tenants may be asked to vacate the premises if they fail to pay their full rent for two consecutive months. If the tenants fail to do so within the specified time, the landowner is entitled to double the monthly rent as compensation.

8. Death of the tenant

If the tenant passes away, the right of tenancy for the remaining time period (according to the rental agreement) goes to his/her successor in the following order: Spouse - Sons / unmarried daughters - Parents - Daughter in law (who is the widow of a predeceased son)

9. Rent Payable

In the case of a new tenancy, the landowner and the tenant have to agree upon the payable rent as stated on the written agreement. If the rent is revised, the landowner must inform the tenants three months in advance.

10. Security Deposit

Once the premises are vacated, the owner must refund the security deposit to tenants within one month. They can deduct the liable amount from this (after discussion with the tenants and agreement by both parties) before refunding the amount.

3. PROPOSED SYSTEM

The proposed solution, to achieve the above defined primary objective, is to develop "mobile application" which shows the information about the rental houses. The application will be view in different for the tenants and owners of the house. The house owners will have their logins so that they can update about the availability of their houses. The tenants will be able to search houses based on their preferences.

3.1 Process Flow

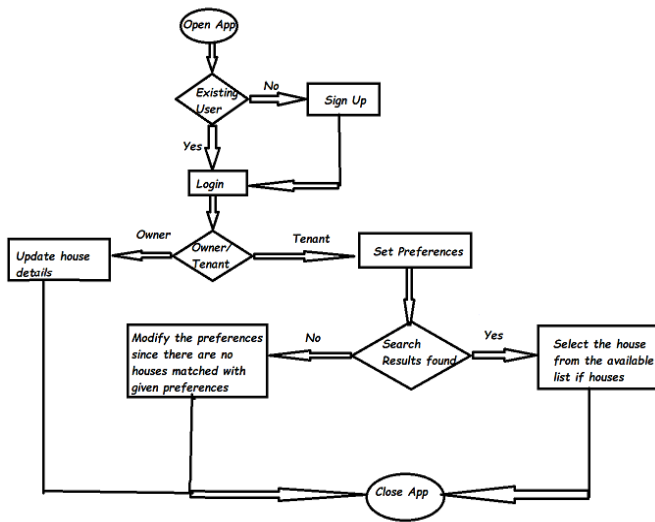


Fig-1: Process Flow Diagram

4. METHODOLOGY

In our app we have two modules:

1. Owner Module
2. Tenant Module

4.1 Tenant Module:

In this module the tenants have to be registered with their email and then login whenever they wish to access the portal. They need to set the preferences of the house and on clicking the search button a list of all the houses which match their preferences will be available. They also have access to make a call to the house owner from the app. In addition to that they are directed with google maps to the exact location of the house.

4.2 Owner Module:

In this module the owners have to be registered with their email and then use their credentials to login here after. They need to update the details of the house so that from then their house will be visible to the tenants who are in search of houses.

4.3 Use Case Diagrams

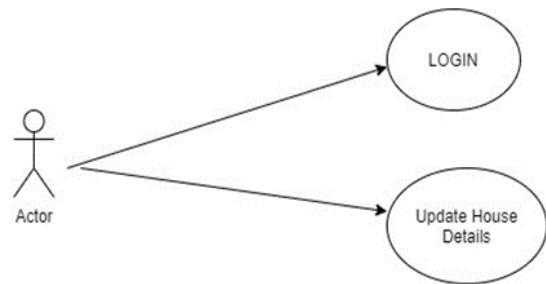


Fig -2: Use case diagram for Owner

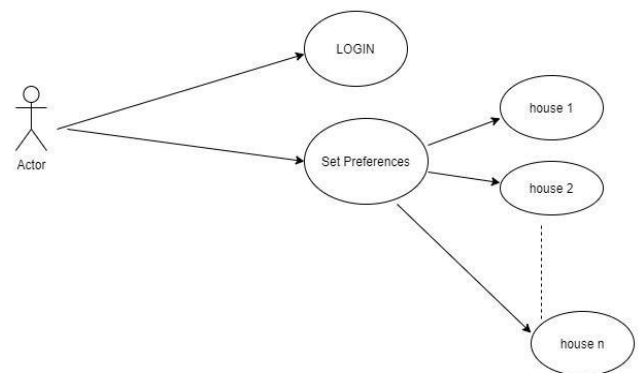


Fig -3: Use case diagram for Tenant

5. DEVELOPMENT ENVIRONMENT

This application has been developed using Android Studio which is the Androids official IDE. The programming language used for developing is Java.

Version: Android Studio 3.5.3

Android SDK Tools 26.1.1

Android Platform Version AP1 29: Android 10.0(Q) revision4

The database used to store the details is firebase real time database which is a cloud hosted

No SQL database that lets you store and sync data between the users in real time.

As mentioned above in the description the entire application is divided into two module's they are user's module and owner's module.

5.1 User Scenario:

1. Sign Up/Register
2. Login with the valid credentials
3. Set the Preferences

4. Search for the house from the available list of houses

5.2 Owner Scenario:

1. Sign Up/Register
2. Login with the valid credentials
3. Update the details of the house
4. Upload the images of the house

6. IMPLEMENTATION

The Output Screens of the Mobile Application are as follows:



Fig -4: Home Page

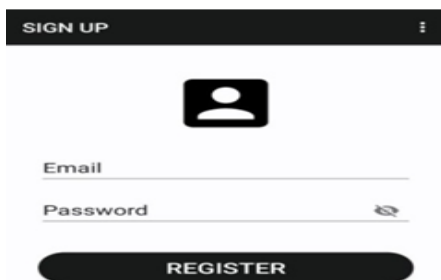


Fig -5: Sign Up Page

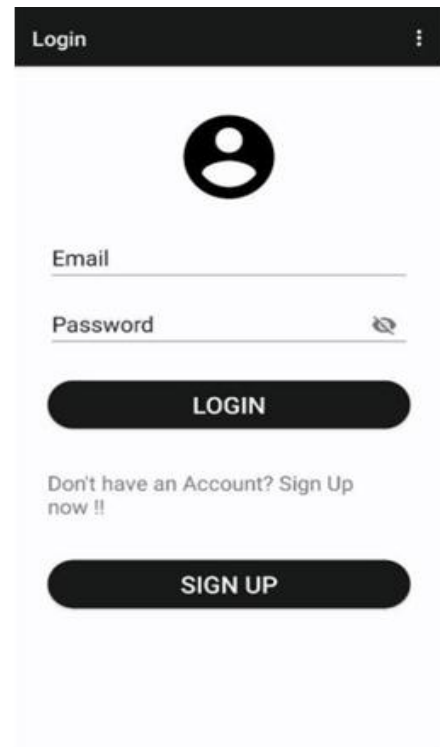


Fig -6: Login Page

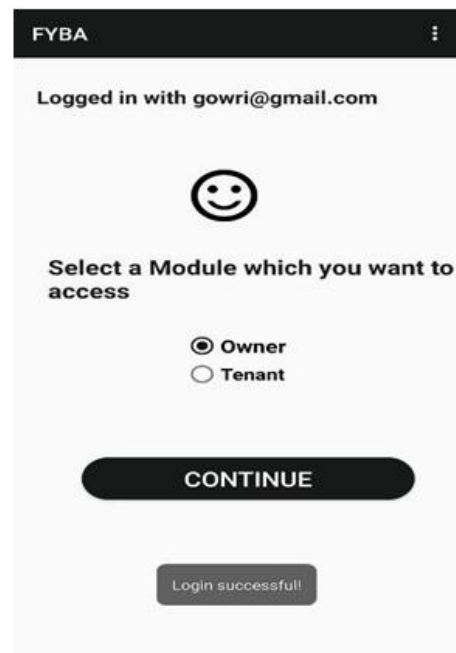


Fig -7: After Login Page

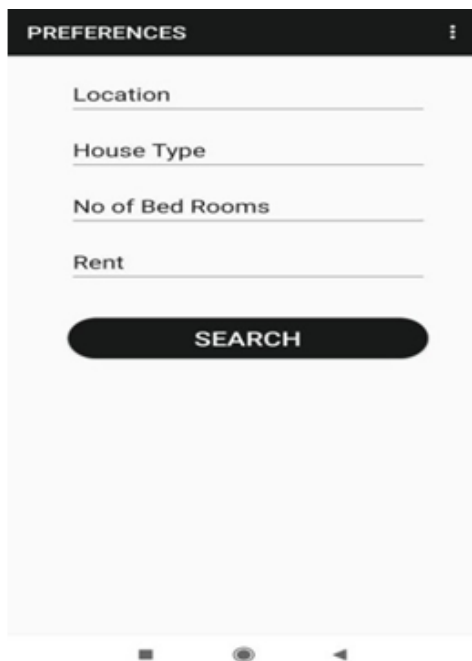


Fig -8: Set Preferences

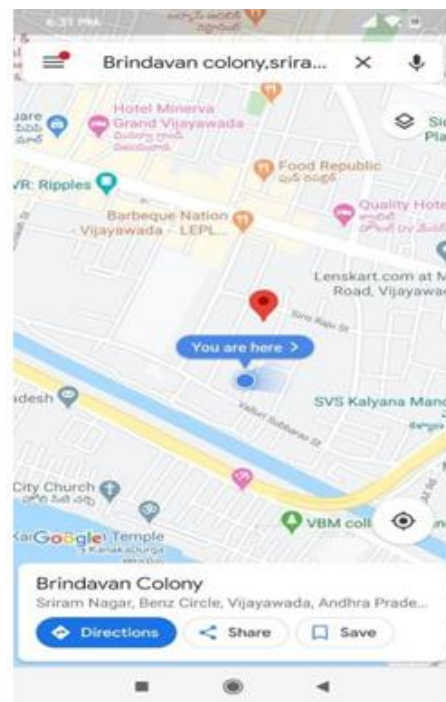


Fig -10: Location of particular house

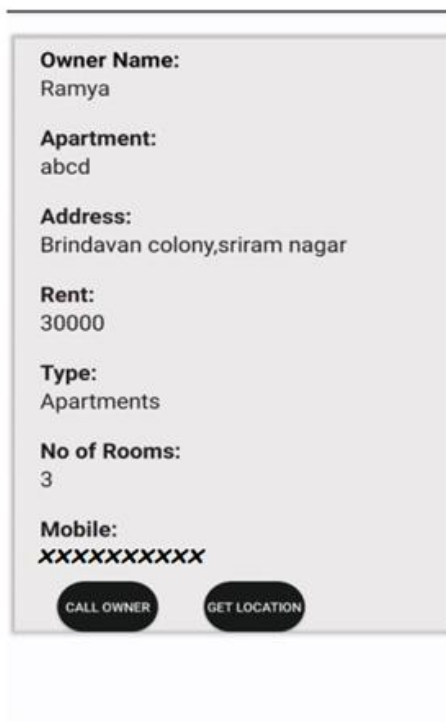


Fig -9: Available Houses List



Fig -11: Call Owner Option

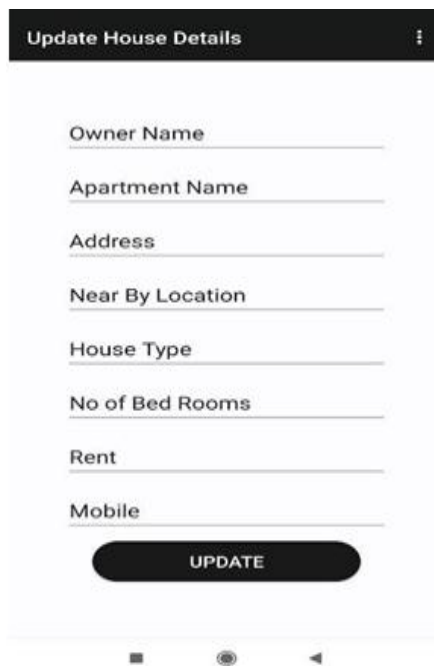


Fig -12: Update House Details Page

7. RESULTS AND ANALYSIS

The output of the project is a mobile app where the tenants will be able to search houses based on their preferences. The above are the screenshots of the implementation of the app. The users will have an option to contact the owner with a call button and can also access the exact location by using google maps. The application is tested by registering multiple users and updating the house details. The registered tenants are able to search the houses based on their preferences.

8. CONCLUSION AND FUTURE WORK

In order to reduce the effort and time put by the people in searching rental houses, this android application has been developed. It is designed in such a way that each and every one can easily understand the working of the application. This application is very much useful for both the tenants and the owners. The tenants need not waste their time in visiting each and every place and check if there are rental houses. They can accomplish it within a fraction of seconds with this application. It is even useful for the house owners because they need not worry about the house being vacant and the count of people visiting the house each and every day. And there will not be any confusions in rent agreement because we make sure that details mentioned in the portal are correct so the tenants and owners should bind with the details mentioned in the application.

9. ACKNOWLEDGEMENT

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10. REFERENCES

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