

RentoAxis: Android App for Paying Guest Management

¹Murahari Prithvi Yash, ²Chinmay Choudhary, ³Akanksha Lakra, ⁴Swati Dewangan
¹U.G Student, ²U.G Student, ³U.G Student, ⁴Assistant Professor
¹Department of Computer Science and Engineering,
¹Bhilai Institute of Technology, Durg, India

Abstract: With the rise in the mobility of the people from various locations in need of better job, study, standard of living, etc. there has been a major concern for managing a housing society and its functioning. Outsiders in a region requires a management system that may allow to relocate quickly with a better housing choice offering flexibility in transaction, rent and other daily need services. The mobile technology and apps are the latest buzzword today that can be used to create, manage and exchange information in this accommodation field. This paper presents the design and implementation of an Android based Paying Guest (PG) management app naming RentoAxis. The proposed system comprises of an android application where (i) the PG owners can advertise the PG details by registering into the application. (ii) the user (common people) can search for the PG, apartments, houses all over Durg and Raipur. (iii) the customers can also search the PG information based on some parameters such as nearby colleges, market, etc. In other words, this application will help PG owners to improve the management of their community and the tasks related to it.

Keywords: Android application, Paying Guest (PG), PG Owners, App.

I. INTRODUCTION

Since PG (Paying Guest) has become an essential part of living Management of Paying Guests and Apartments is a major challenge in any region. As the functionalities of renting PG are completely based on manual procedures, most PGs are left rent less due to lack of communication and unawareness. There is a need to develop a system that may allow the PG Owner to maintain their work and Customers to relocate easily using the rental management system. With the use of technology in every field across modern world, computers and mobile devices are affecting human lives in one way or the other. Despite the many inherent benefits of mobile, websites and mobile apps are becoming very popular. This is because majority of the consumers now basically browse the internet using their mobile phones or tablets. To overcome the problems occurring due to this time lagging manual system, an automated system needs to be developed to reduce the human efforts. There are numerous applications that come up for this accommodation domain. This system mainly focuses on the PG owners as well as the common users who are in search of PGs who come from different places to study as well as to work. The project work proposes "RentoAxis" a new Android based platform to help people meet their needs for relocation. It enables the common people (user) to search for the Paying Guest (PG) and accommodation all over Durg and Raipur. a. The PG owners can advertise the PG details by registering into the website which is based on Admin side. Once the admin verifies the details and authenticate the login, the owners will be able to login and can also able to upload the PG details into the application. The users can view those details and make use of this information to search for the PGs according to their needs. This application will help the users to view the PG details, the facilities in the PG. The users can also search the PG's information based on some parameters such as nearby colleges, markets, shops, internet connectivity, etc. This application will be useful to anyone who is in search of a place to stay. RentoAxis is a valuable tool for the modern business. The process of house hunting is simplified with the introduction of the RentoAxis. the pain of unnecessarily spending some amount of money on the housing brokers is also reduced to a certain level with the introduction of this app. It will benefit the community of students, working people, outsiders as it seamlessly connects and interacts with everyone using the app. This app offers a flexible housing choice to adapt to changing financial circumstances-including the need to relocate quickly. This app mainly focuses on the PG and apartment owners, as well as the common users who are in search of PGs who come from different places to study as well as to work.

This paper is divided into the following sections: Section I introduces the concept and functions of the application. Section II describes the aim of creation of this application. Section III presents the literature review of some of the technologies that were developed for a similar purpose, their strengths and weaknesses have been illustrated as well. Section IV gives the system design and methodology used in the development of the application. Implementation is described as in section V. Section VI mentions the conclusions.

II. LITERATURE SURVEY

The number of educational institutions and job offerings have increased rapidly in the past few years. Thereby the number of accommodation requirements by students and workers has also increased in the city. There is much strain for the PG owners to maintain and allot the PG adopting manual procedures. In this context the technology can be used to enhance the services and facilities for the PG owners and the customers. In the existing systems the search for PG completely manual labour which in turn wastes money, time and human power. Identifying the drawbacks of the existing system this project work focusses on designing an Android based application which is more user friendly and beneficial for PG owners. There is no android application which can facilitate to find out accommodation and PGs all over Durg and Raipur. People coming from different places to study and to work find it very difficult to search for the PGs to stay. This application provides a detailed information about all the PGs and apartments around Durg and Raipur and also, they are all sorted according to the area, price and amenities so that search can be made easy, there are no specific application on this domain. In our application, we are providing facilities like Google Map - which can specify current location and guide the users to the specified location where the PGs and apartments are located.

III. PROPOSED APPROACH

The proposed system focusses on development of an Android based application that targets people looking for accommodation in the city. The proposed RentoAxis App is a customized and user-friendly system that allows to store and hare information about the PG accommodation services across the city. It provides facilities such as enquiring about PG, Address, Rent and other daily need services. Managing committee as well as the residents will install the same application on their phone. They will register themselves on the application and this information will be stored for that particular housing society. The users will thus be able to access the services provided by the application. The proposed application is developed using the two component: An Android studio as front end and Android - SQLite Database as backend. The overall system is divided into the following modules:

Administrator Module:

- Manages all the information and has the access rights.
- Check the details of the PG owner as well as customer.
- View/Delete the details related to PG, owner and user.

Owner Module:

- The PG Owner will follow registration procedure by using identity proofs.
- They can easily add details of the Apartment, Rooms, Paying Guests and can update or delete the details according to the need.

User Module:

- The user will also register by their unique ID.
- Users can search for hostel rooms, paying guests etc. and get the room details, room rent, address of the room, pictures of the room etc. across the city.

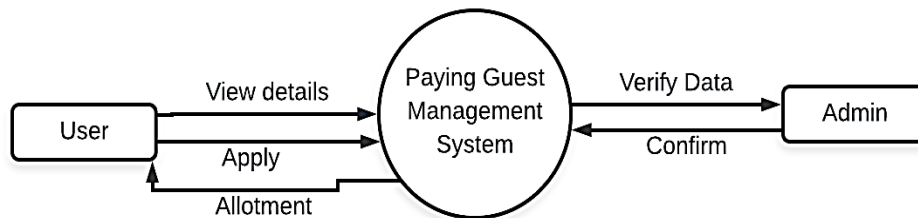


Fig. 1. Admin Module

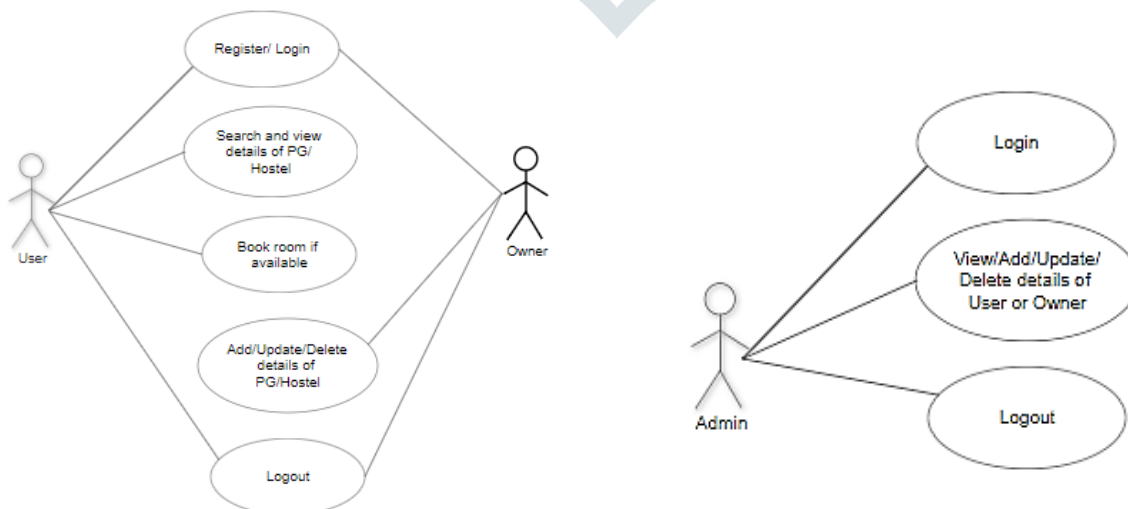


Fig. 2. User Module

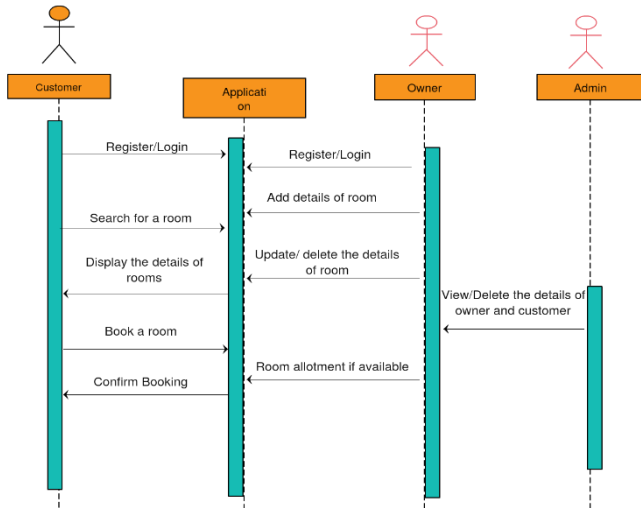


Fig. 3. Sequence Diagram

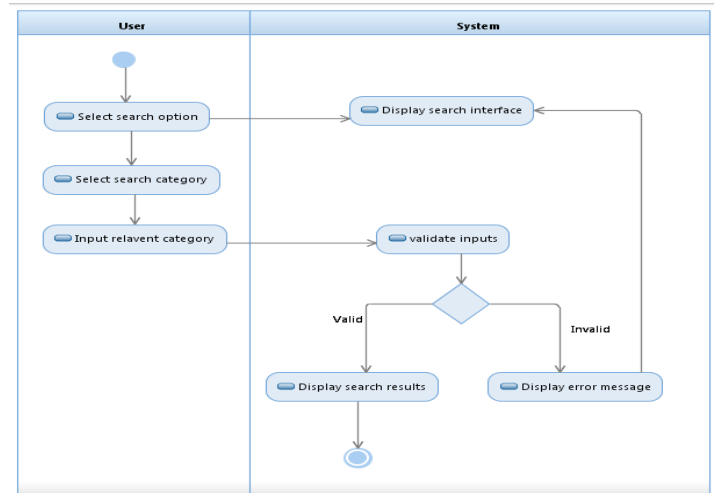


Fig. 4. Activity Diagram

IV. RESULTS AND DISCUSSIONS

To simplify the work of the PG Owner, so that all their work can be efficient and effective, the Paying Guest Management Application RentoAxis is developed which is based on the Owners and the Customers. The Owner updates the Apartment, Room details about Room space, Room rent, Pictures of room and the Address Details also. The Paying Guest Management System is best suitable for the Owners because it saves time and there is no need to explain the room details. The Paying Guest Management System is used to easily identify the suitable place and saves time and cost also. The Paying Guest Management System is best way to search the hostel, Apartment and Paying Guest. The system will be able to handle many services to take care of all customers in a quick manner. Safety, easiness of using and most importantly the efficiency of information retrieval is some benefits the development team is going to present with this system. The system should be user appropriate, easy to use and have an overall end user high subjective satisfaction. In the last this system will improve the management work in the hostel.

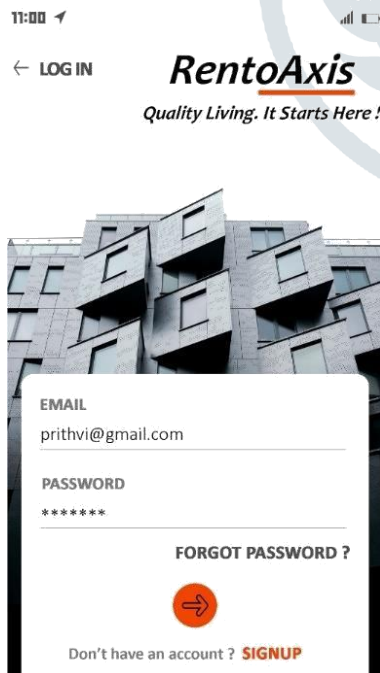


Fig. 5. RentoAxis: Login Screen

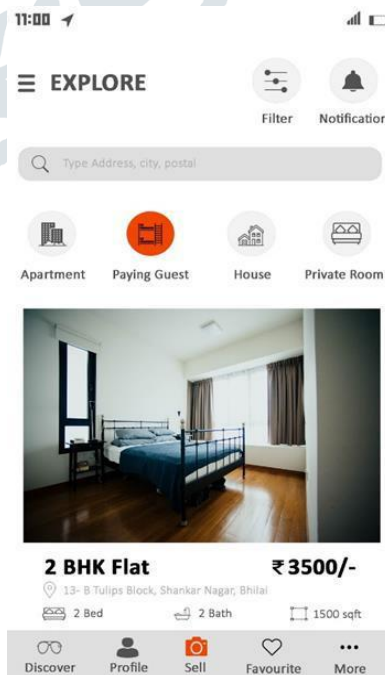


Fig. 6. RentoAxis: PG list

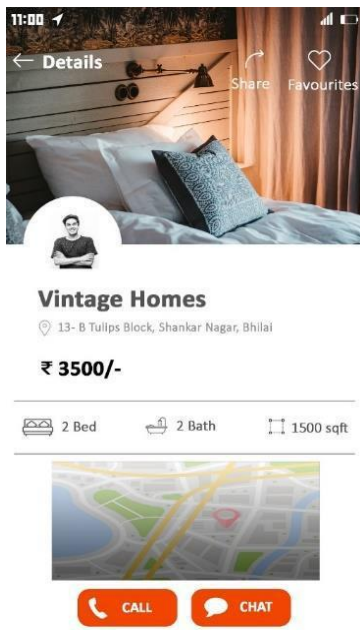


Fig. 7. RentoAxis: Accommodation Details

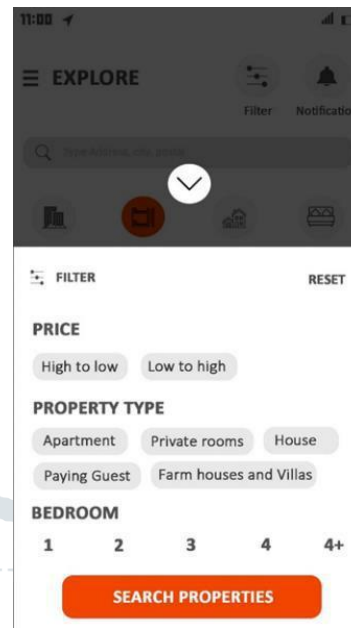


Fig. 8. RentoAxis: Filter Option

V. CONCLUSION AND FUTURE SCOPE

RentoAxis is a user-friendly app which enables the people to easily locate authorized PGs and apartments in Durg and Raipur and also, they are all sorted according to the area, so that search can be made easy. Time has been an important factor in everyone's life and when people move to different places to study or to work, they definitely have to waste time in searching for accommodation. Thus, we have integrated a lot of features in one app. We have designed our app "RentoAxis" on android platform. In future, we will try to make such an app which can implement on every platform. Google Map location of PGs can be made available across all the cities and payment services can be added.

REFERENCES

- [1] Baldwin TL, inventor; TIPPLY Inc, Tiplly Inc, assignee. Service productivity and guest management system. United States patent application US 14/315,310. 2015 Feb 12.
- [2] Bugiel, S., Davi, L., Dmitrienko, A., Heuser, S., Sadeghi, A.R. and Shastry, B., 2011, October. Practical and lightweight domain isolation on android. In Proceedings of the 1st ACM workshop on Security and privacy in smartphones and mobile devices (pp. 51-62). ACM.
- [3] Singh O, Lakhan A, Gupta J. Implementation of an Android Application for Management of a Housing Society. International Journal Of Engineering And Computer Science. 2015 Jun 12;4(06).
- [4] Akshatha.M1, Bhavya .B. , PG Locator, International Journal of Engineering Science and Computing, June 2017 IJESC, Vol 7 Issue 6, 2017.
- [5] Henry Peter Gommans *, George Mwenda Njiru **, Arphaxad Nguka Owange , Rental House Management System ,International Journal of Scientific and Research Publications, Volume 4, Issue 11, November 2014, ISSN 2250-3153
- [6] Lydia Antony, Dilip V, Fifie Francis, Rohini . GO CITY – A SURVEY International Research Journal of Engineering and Technology (IRJET) Volume: 02 Issue: 08 | Nov-2015, ISSN: 2395-0056
- [7] Rahul Bhagwat1, Aashay Bharadwaj2, Vivek Harsode3, Anurag Chawake4, Mrs. Deepali Bhanage, Society Management Application on Android, International Research Journal of Engineering and Technology (IRJET), Volume: 05 Issue: 05 | May-2018
- [8] Krishna Rajput1, Nimisha Shah2, Kalyani Adwadakar SMART PG (Paying Guest). International Journal of Advance Engineering and Research Development Scientific Journal of Impact Factor (SJIF): 4.72 Special Issue SIEICON-2017, April - 2017 ISSN : 2348-6406