

# Multifamily Renting System

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**Abstract---** *The housing domain is careful in facing the challenges by introducing a new strategy that facilitates the comfortable administration of rental flats. A rental management system is required to make the work simple for property managers. So that we decided to develop a system that enables the managers to do their work in an efficient manner. The system facilitates separate login for the property managers and the renters. The managers can add the details about the available flats along with the following details: number of rooms, floors, and rents for the flat, and he also mentions the availability of him so that the users can go to visit the flats accordingly. Users can register with the website by providing the basic details and they can login to view the flat details that were added by the manager. If the user is interested in the flat, then he/she can go directly to view the flats by knowing the manager's availability. Once they reach the place, to get the flat key, the user needs to enter the OTP that is sent to the registered mobile number. Along with the OTP, the user needs to enter their credit card number to debit the amount from the user account if they caused any damage in the flat. After the visit, the user can post their reviews on the website which the manager can view and make any further advancement. With this system, the user can get multiple choices for renting and the manager can increase their customers.*

## I INTRODUCTION

House is a basic need for anyone to live in the world. House can be considered as of social, economic and personal significance. Housing which can be deemed as a key indicator of development, plays an important role in reinvigorating economic growth in any country. According to the universal declaration of human rights, one of the basic human rights is to have a decent standard of living[7]. The main aim of this research project is to fundamentally manage the residence for low rent, medium and high returns households which is otherwise called as affordable housing. The term affordable housing means that the houses should be within the income range of every individual even those who are on the lower-income scale[8]. Many people prefer to rent houses based on their income level and family conditions. Sadly, there may not be quite satisfying quality rental housing for these families. The need for such rental houses is remarkably huge and numerous rental houses should be placed in position. Building rental houses will benefit the landlords by which they can improve their profits from the rent paid by the tenants. When the number of inhabitants and owners increases, the administration might be difficult especially for those who are losing a huge sum of money over renters who evade rent. The above statement justifies the need for the rental house management system to be developed.

The multifamily renting system will assist in the proper administration and control of apartments if it is utilized in its most broad terms. Management is important in any sort of business. Likewise, property managers also need a system by which they can improve and monitor their business with low cost and high efficiency[3]. The multifamily

renting system is the appliance of the customers which helps them to view the houses and add reviews for the houses they visited. The multifamily renting system comprises the processes, methods, and manpower expected to sustain the life cycle of all collected properties as defined above by including acquisition, control, liability, responsibility, support, utilization, and disposition[9]. This software enables us to retain records of the daily transactions of the apartments. It helps in replacing the manual system of storing records with the fashionable computerized system. It'll not only save a lot of time but it also decreases the possibilities of errors and helps to sustain in the business industry[6]. The main idea behind designing software is to help the maintenance of the apartment and its visitor's details. This software helps to trace records of flat details, rent details, photos, and other related issues.

## **II EXISTING SYSTEM**

Currently, most equity administrators handle their investments and tenants' specifications on papers. Once clients obtain a vacant house, they can phone or email the manager of the houses showing the extent of the house they would relish engaged to them. The property manager can email them behind providing them all the particulars regarding the home they are demanding. The features including rent per month, paid amount, Terms and provisions to follow. There are some cloud based systems where the details related to the apartments can be stored online via cloud to provide better storage and maintainability[2].

## **III PROBLEMS OF EXISTING SYSTEM**

The existing system requires the property managers to record all the details in a paper form which leads to a lot of manual work. The details might include the name of the renter, rent for the house, phone number, date of payment and balance amount. Maintaining these details in papers may cause various inconveniences to the owners[6]. There may be damage or loss of data. There are systems that allow the managers to store, access, maintain the details of tenants. These details are hidden from renters. So the proposed system will eliminate the disadvantages of the existing system.

## **IV PROPOSED SYSTEM**

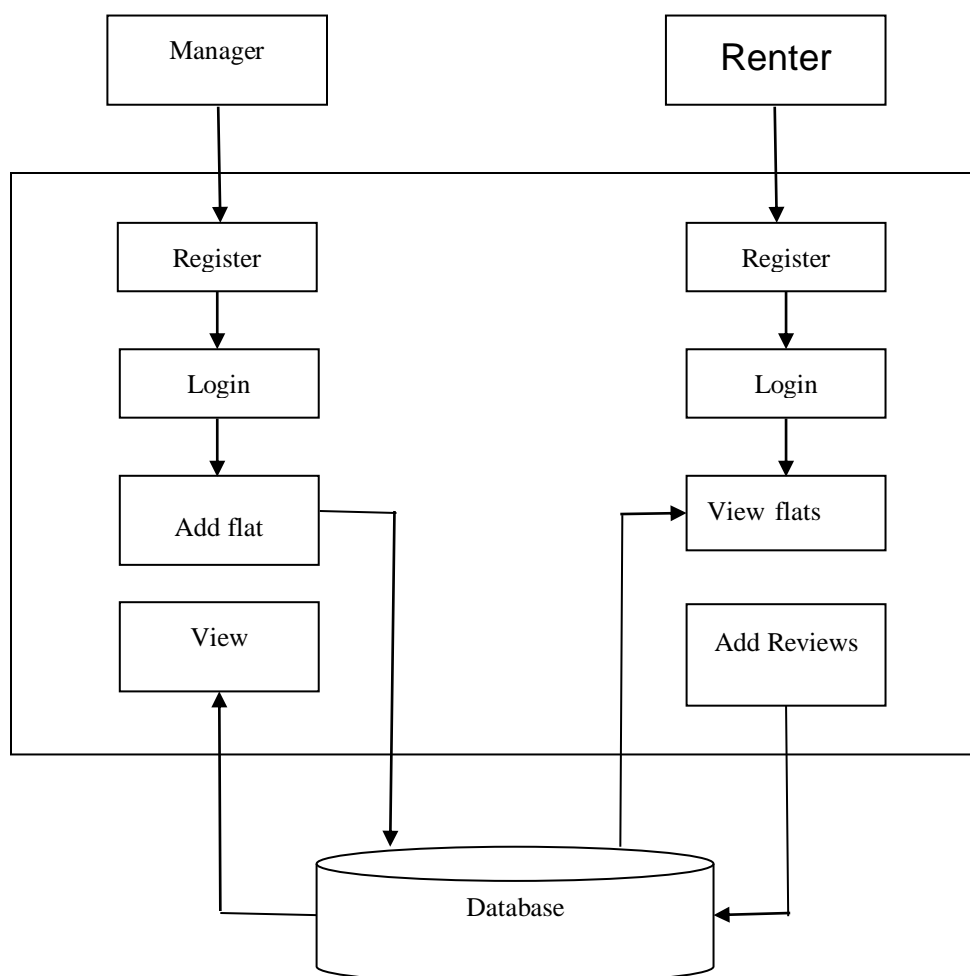
The proposed system rectifies the drawbacks of the existing system by developing the website using ASP.NET and SQL server. Here the manager can add the details of flats by mentioning the address, flat number, the number of rooms, rent, floor, and the occupied status of the flat. The photos of the flats are also uploaded. In addition to the provided details, the manager also uploads the available time in the portal. The renters who are searching for the flats can register into the system in the renter's login portal. The renters can search for the flats with the specifications they want. They will be able to see the details fed by the manager. So it will be helpful for the users to make a judgment of how well the flat suits them. As the renters will be able to know all the details about the flat, the job of searching for a satisfactory resident is made simple for the normal people. If they think that the flat suits them then they can give a request to visit the home in-person to know more about the home. For that, the renters need to book an appointment to complete the process. The users will be provided with the list of available time slots that have been fed by the property manager. From the options, the renters can choose the time that works for them and book an

appointment for the flat at that particular time and no other person will be able to book that time for that flat. The renter can visit the flat and for security reasons, an OTP will be sent to the registered mobile number to get the key for that flat. At the time of getting OTP, the renter needs to provide the credit card details to charge the required amount if they made any damage to the flat at the time of the visit. Once the renter visits that flat, they will be left with an option to post their reviews about the flat. The review collected will be helpful for the other renters who want to visit the flat and it will also notify the managers on which area they need to work in order to improve their business. If the renter likes the flat and interested in renting the flat then he/she can occupy the flat with further discussion with the manager. If the flat is occupied then the status of the flat will be changed by the manager.

#### Advantages of the proposed system

- Users can visit the place by knowing manager availability.
- To ensure security, the OTP is sent to users registered mobile numbers at the time of getting the key.
- The users can post the reviews on the website that helps the flat manager to rectify the drawbacks if any. The users are provided with multiple choices to get the flat for rent.

#### V SYSTEM ARCHITECTURE DESIGN



## **VI MODULES**

- Manager
- Add flat details
- User registration
- Search for flat
- OTP generation
- Post reviews

### **Manager**

This module maintains the details of the authorized user permissions. Here the authorized person only can log in and proceed. The main purpose of this module is to provide security. A manager is one who maintains the entire system by adding the flat details. If the manager has more apartments, then the manager can split the apartments among different agents and give the module to the agents for the apartments under his control.

### **Add flat details**

In this module, the manager adds the flat details by mentioning the flat number, location, total rooms, floor, rent, and occupied status. These details are stored in the database so that the user can view it when searching for a flat.

### **User registration**

This module is for the user, where he/she provides the basic details like name, age, gender, address, mobile number, and mail id. The user creates their own login by mentioning the username and password. These details are stored in a database to authenticate at the time of login.

### **Search for flat**

After registration, the user can search for a flat and the details of the flats are fetched from the database that was stored by the manager. If the user is satisfied with the flat, then he/she can visit the flat directly by knowing the availability of the manager.

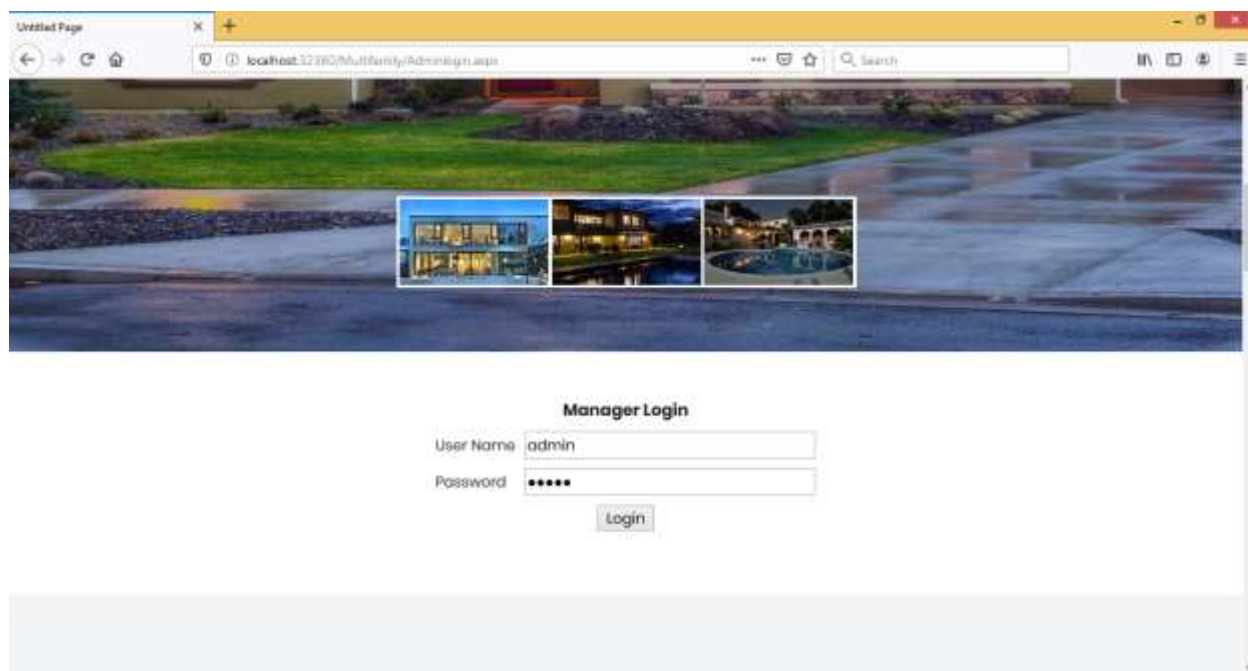
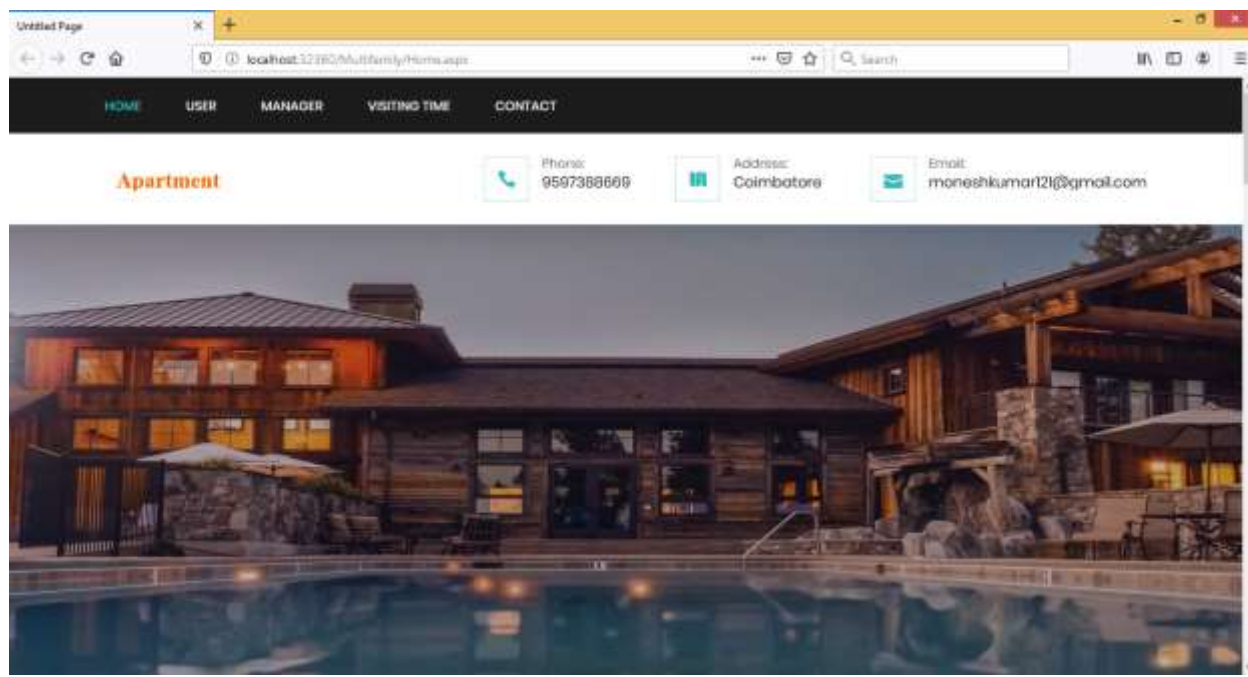
### **OTP generation**

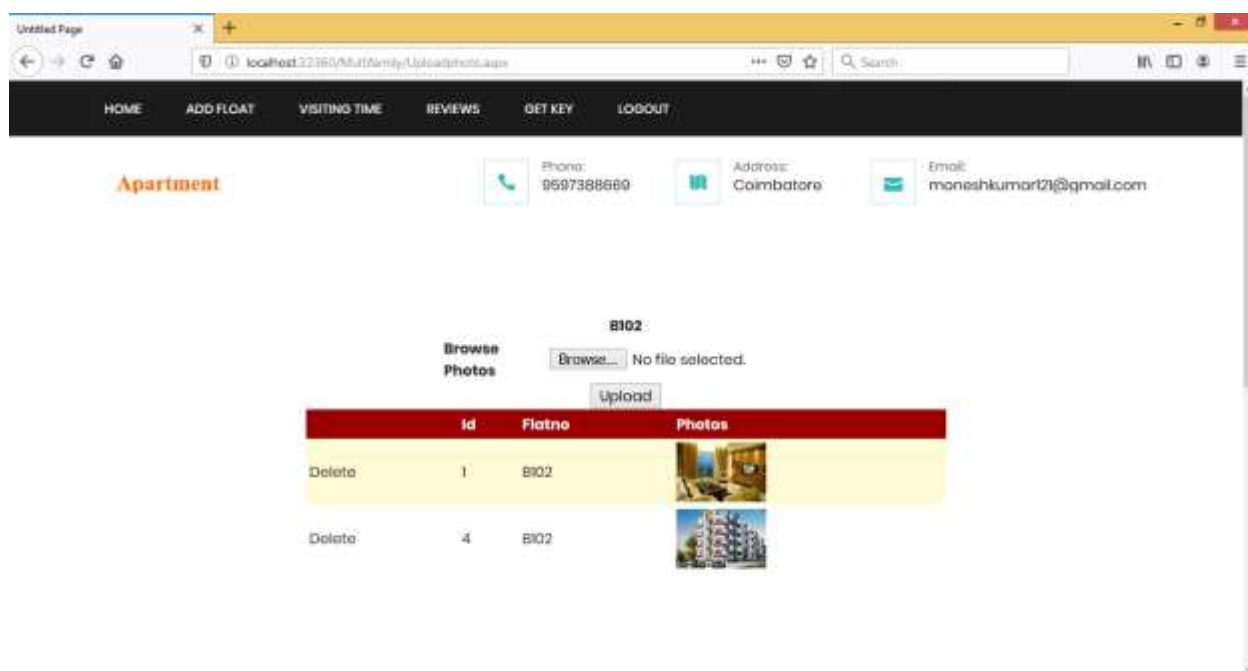
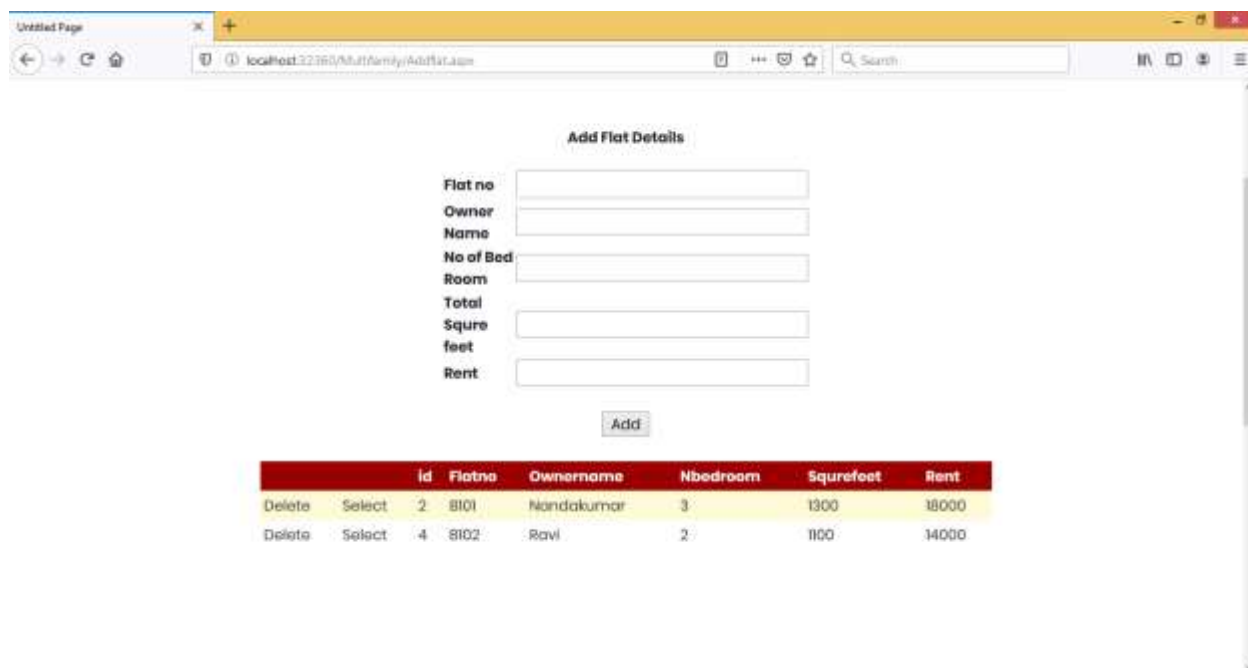
After the user reaches the place, to get the flat key, the user needs to enter the OTP that was sent to the user's registered mobile number. Along with OTP, the user needs to enter the credit card number also. This is because, if the user causes any damage to the flat, then the amount will be detected automatically from the user's credit card.

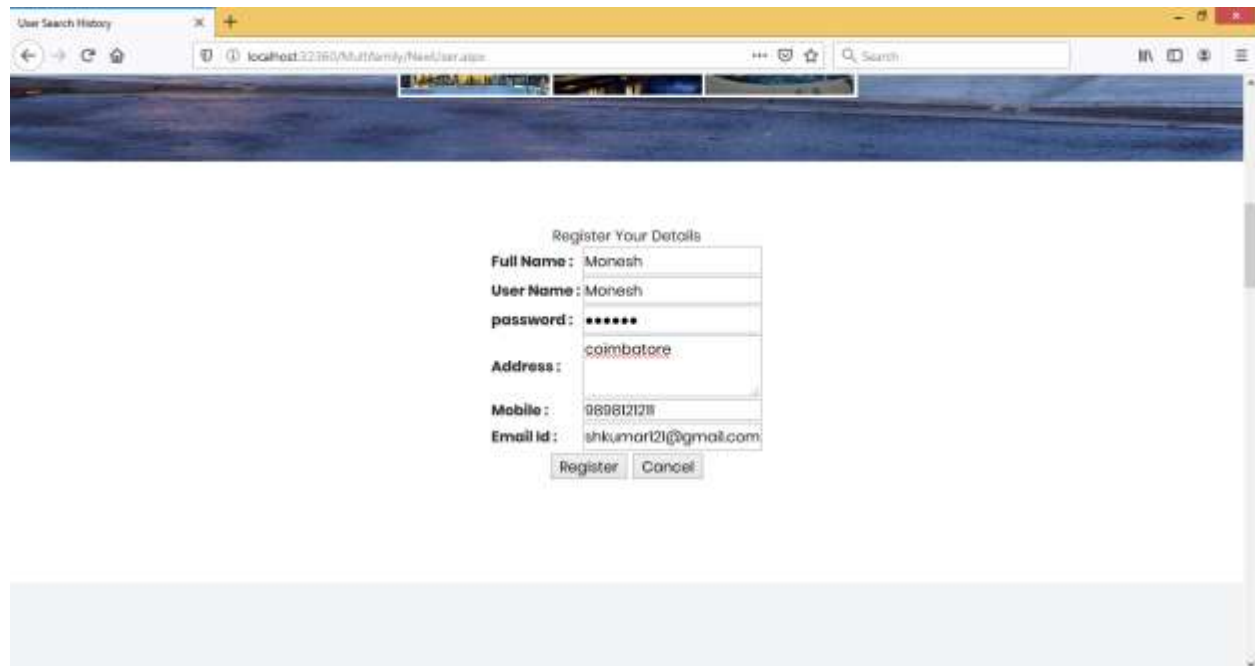
### **Post reviews**

After the visit, the users can post their views about the flat as a review which can be viewed by the manager.

## VII DESIGN ANALYSIS







## VIII CONCLUSION AND FUTURE ENHANCEMENTS

The developed system will help both the owners and renters. It provides a good platform for the managers to showcase their properties and the renters can easily choose a flat for their livelihood. Any improvements to the system can be done easily. In the future, the past details of the properties can be added so that it will be useful for the owners to track the history of a selected property. A module for the renters can be developed in which they will be able to pay the rent for the flat they have occupied through the system. The renters can be notified of the due date of the rent. This will help the renters to pay the rent on time and the process of paying rent will also be simplified. These enhancements can be integrated into the system later to help the renters and managers.

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