Acknowledgment

Abstract

The primary objective of the 'Property Rent' project is to provide users with a versatile and user-friendly platform for organizing and managing landlord posts for renting houses effectively. The Property Rent app simplifies property rental and management, offering a user-friendly interface, efficient communication channels, and essential management tools for property owners and tenants. It allows users to list available properties, search for properties, and provide detailed property information. The app also features an integrated messaging system and personalized profiles. The Property Rent app enhances transparency, convenience, and trust in the property rental industry, making it a valuable asset.

Md. Akhlaq Hossain	Md. Zillur Rahaman (Rohan)	Tamima Nisat	Al Rifat Hasan	Nasir Uddin
ID: 19202103293	ID: 19202103296	ID: 19202103309	ID: 19202103311	ID: 19202103316

Copyright

Dedication

Dedicated to our parents, teachers, friends and who loved us for all their love and inspiration.

Certificate

This is to certify that Md. Akhlaq Hossain (ID: 19202103293), Md. Zillur Rahaman (Rohan) (ID: 19202103296), Tamima Nisat (ID: 19202103309), Al Rifat Hasan (ID: 19202103311) and Nasir Uddin (ID: 19202103316) belong to the department of Computer Science and Engineering, have completed our Project on Property Rent Android Application satisfactorily in partial fulfillment for the requirement of Bachelor of Science in Computer Science and Engineering of Bangladesh University of Business and Technology in the year 2023.

Supervisor
Atiya Masuda Siddika
Lecturer
Department of Computer Science and Engineering
Bangladesh University of Business and Technology

Approval

A Project on 'Property Rent' Android Application is submitted by Md. Akhlaq Hossain (ID: 19202103293), Md. Zillur Rahaman (Rohan) (ID: 19202103296), Tamima Nisat (ID: 19202103309), Al Rifat Hasan (ID: 19202103311) and Nasir Uddin (ID: 19202103316) Department of Computer Science and Engineering, Bangladesh University of Business and Technology under the supervision of Atiya Masuda Siddika, Lecturer, Department of Computer Science and Engineering, has been acknowledged as palatable for the partial fulfillment of the necessity for the degree of Bachelor of Science in Computer Science and Engineering and endorsed as to its style and substance.

Supervisor
Atiya Masuda Siddika
Lecturer
Department of Computer Science and Engineering
Bangladesh University of Business and Technology

Chairman
Md. Saifur Rahman
Assistant Professor & Chairman
Department of Computer Science and Engineering
Bangladesh University of Business and Technology

Acronyms List

API: Application Programming Interface

HTML: HyperText Markup Language

CSS: Cascading Style Sheets

JS: JavaScript

Contents

List of Figures

Chapter 1

Introduction

1.1 Introduction

The 'Property Rent' app is a platform for property owners and tenants to manage rental properties and search for available properties. It simplifies the rental process for both parties, allowing property owners to list properties, manage tenant applications, and specify rental requirements. Tenants can search for available properties, submit applications, and contact property owners. The functionality of the system is crucial for user experience and overall success.

1.2 Problem Statement

The traditional physical property rent process has several disadvantages compared to digital systems. These include time-consuming and inefficient interactions, limited access to information, geographic limitations, communication challenges, limited transparency, paperwork and documentation, inconvenient payment methods, limited flexibility, lack of reviews and ratings, and security and safety concerns. The lack of a centralized platform or database for property listings further exacerbates these issues. Digital property rent systems streamline and simplify the experience for property owners and tenants, reducing risks and ensuring user-friendliness in meeting strangers and providing personal information.

1.3 Motivation

The Property Rent app is Motivation to revolutionize the property rental industry by offering convenience, efficiency, access to information, a centralized platform, enhanced user experience, transparency, secure payment solutions, property management tools, geographic reach, data privacy, and security. It aims to improve the overall rental experience for both property owners and tenants, fostering trust, and addressing market demand for modernization.

1.4 Objectives

The primary objectives of the 'Property Rent' app are to develop

1. Property Rent app streamlines the rental process for users and tenants.

2. App addresses challenges in the traditional property rental market.

3. App provides exceptional customer support for the rental process.

4. Property Rent app revolutionizes rental market with technology-driven connectivity.

5. This app improves the rental experience, fosters trust, and creates a thriving ecosystem for stakeholders.

1.5 Contributions

The property rent system makes a significant to the real estate industry by revolutionizing the way property owners manage their rental properties and tenants engage in the rental process. Its implementation offers several notable contributions, which are outlined below:

- **Improved Efficiency:** The property rent system significantly improves operational efficiency for property owners and managers. By digitizing and automating various processes such as rental applications, lease agreements, rent collection, and maintenance requests, the system eliminates time-consuming manual tasks and reduces administrative burdens. This allows property owners to focus on strategic decision-making and delivering a better rental experience for tenants.

- **Scalability and Adaptability:** The property rent system is designed to be scalable and adaptable to different types and sizes of properties. Whether it is managing a single unit or multiple properties, the system can accommodate the needs of property owners and managers. Its flexibility allows for future growth and expansion, making it a valuable tool for property management companies and real estate professionals.

1.6   Conclusion

Property rent system streamlines the rental process, improving transparency, communication, and efficiency for both property owners and tenants. It simplifies application and screening, eliminates physical paperwork, and streamlines rent collection and maintenance processes. This technology also provides valuable analytics for informed decision-making, enhancing the rental experience for all stakeholders involved.

Chapter 2

Existing System

2.1 Introduction

Property rent app is a mobile application designed to facilitate the process of renting properties for both landlords and tenants. It provides a platform where landlords can list their available properties, and tenants can search and find suitable rental options.

2.2 Existing System

There are several existing property rental apps available in the market today. Here are some popular ones:

- **Bproperty:** Bproperty is one of the leading property rental platforms in Bangladesh. It offers a wide range of residential and commercial properties for rent across different cities in the country.

- **Shohoj Property:** Shohoj Property is a property rental app specifically designed for the Bangladeshi market. It allows users to search for apartments, houses, and commercial properties for rent in various locations.

- **Amarroom:** Amarroom is a property rental platform that focuses on providing affordable housing options in Bangladesh. It offers a variety of rental properties, including apartments, houses, and rooms.

- **Airbnb:** Airbnb is a well-known platform that allows individuals to rent out their properties, including apartments, houses, and vacation rentals, to travelers.

- **Zillow:** Zillow is primarily a real estate marketplace, but it also offers rental listings. Users can search for rental properties based on location, price range, and other criteria.

These are just a few examples, and there are many other property renting apps available with different features and capabilities. The best app for you will depend on your specific needs and preferences.

2.3   Problem of Existing System

While property renting apps offer numerous benefits, there are some common challenges or limita- tions associated with existing property rent apps:

1. **Limited Availability:** Property rent apps may not be available in all regions or countries. Some apps may have limited coverage, which can make it difficult to find suitable options for specific locations.

2. **Lack of Property Listings:** Depending on the app's user base and market penetration, there might be a limited number of property listings available. This can restrict the options for both landlords and tenants, especially in less populated areas.

3. **Limited Search Filters:** While property rent apps typically offer search filters, they may not cover all the criteria that users require. For example, specific amenities, pet policies, or accessibility features may not be included as search filters, making it challenging to find properties that meet specific requirements.

4. **Communication Challenges:** Some property rent apps may not provide efficient communication channels between landlords and tenants. Limited messaging capabilities or delayed response times can hinder effective communication and cause frustration for both parties.

5. **Privacy Concerns:** Property rent apps collect personal information from users, including contact details and financial data.'s essential to ensure that the app has robust

privacy measures in place to protect sensitive information from unauthorized access or data breaches.

6. **Reliance on User Reviews:** Property rent apps often include user reviews and ratings for properties and landlords. However, these reviews can be subjective and may not always reflect the true quality or experience of a property or landlord.

2.4 Conclusion

The existing property rent system app offers convenient and efficient solutions for managing rental properties. It streamlines the process of listing, searching, and renting properties, providing a user-friendly interface for both landlords and tenants. With its features such as online payments, document management, and communication tools, the app enhances the overall rental experience and simplifies property management tasks.

Chapter 3

Proposed Model

3.1 Introduction

The Property Rent Android Application's proposed concept aims to give users a simple and effective way to search rental house, choose favorable house as their need, and landlord post their To-let. The Property Rent app can be a vital tool for people who need rental house and easily find conducive living house because of its user-friendly layout and diverse functions. Key Features are:

- New post creation

- Deleting an existing post

- Editing post

- Security and Safety

- Location of the rental house

- Adding Image

- Search rental house

- Rental price

- Notifications and reminders

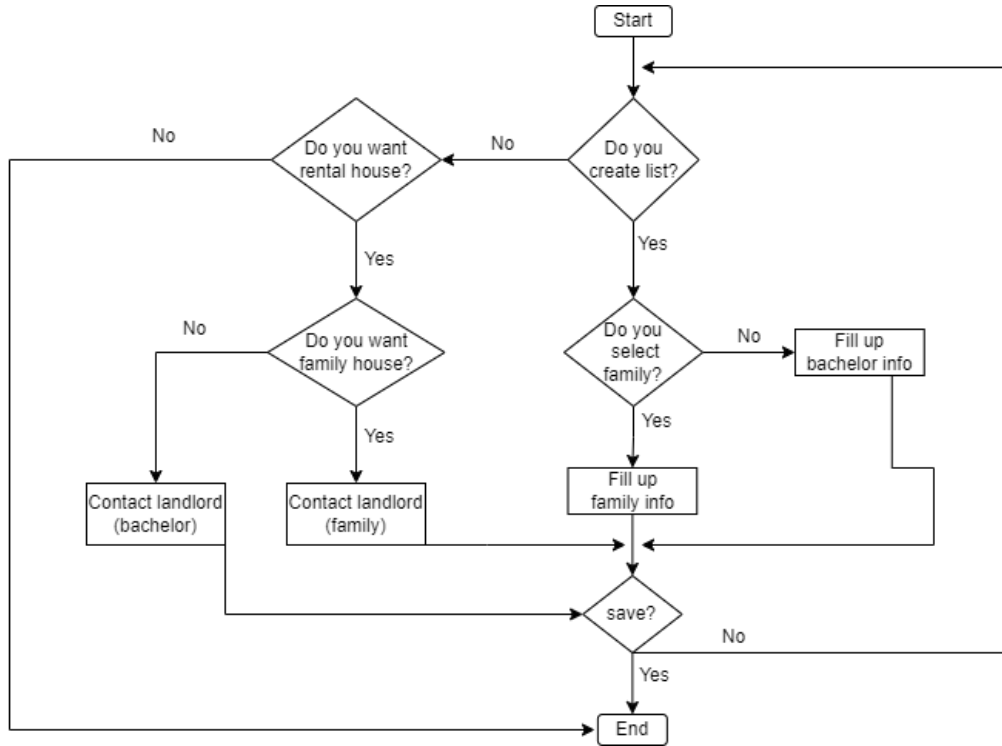- House Description

3.2   Flow Diagram

Figure 3.1: Flow Diagram

3.3   Advantages

Our Property Rent app, equipped with post creation, Search rental house, image and URL integration, timestamp, and searching features, offers several distinct advantages to users. These advantages contribute to a more efficient and organized by Property Rent. Here are the key advantages of our app:

- **Flexibility:** Property Rent provides you to be more flexible in terms of location and length of stay. It enables you to simply relocate to different places or towns without the financial burden of selecting a home.

- **Convenience:** Both landlords and tenants benefit from property rent. Through the app, landlords can effortlessly display their properties, manage queries, and get in touch with

prospective tenants. From their mobile devices, tenants may look up available properties, examine details, and get in touch with landlords.

- **Wide Selection of rental house:** Our apps often include a sizable database of houses, giving tenants lots of options. Comparing this to more conventional means of looking for rental homes, it saves time and effort.

- **Unique Information:** Property rent apps often include advanced search and filtering options. Renters can focus their search on factors like location, price range, number of bedrooms and bathrooms, and particular amenities. This makes it easier for them to locate houses that meet their criteria.

- **Communication and Scheduling:** Our Apps facilitate direct communication between landlords and tenants. Landlords can be reached quickly by tenants to answer queries, arrange for house viewings, or go over rental conditions. As a result, there is no longer a need for repeated phone calls or emails to complete the process.

Chapter 4

Experimental Results

4.1   Experimental Results

The experimental results obtained from the statistical analyses provide valuable insights into the dynamics of the property rent. Initial findings indicate that location remains a significant determinant of rent prices, with properties situated in prime urban areas commanding higher rents compared to those in suburban regions. Additionally, the size of the property and the availability of amenities play pivotal roles in shaping rent prices, with larger and more well-equipped properties fetching higher rents.

4.2   Introduction

The housing rental market plays a vital role in the overall economy, providing individuals and families with a place to call home and meeting the growing demand for rental properties. As the dynamics of the housing market continuously evolve, it becomes crucial to study and analyze various factors that influence house rent prices. The present study aims to delve into the experimental results obtained through comprehensive research and data analysis to shed light on the determinants and patterns affecting house rent. Understanding the factors that influence house rent prices is of significant interest to both tenants and landlords. For tenants, it is essential to gain insights into the key drivers of rent fluctuations, enabling them to make informed decisions about where and when to rent a property. On the other hand, for landlords

and property owners, this knowledge can help in setting competitive rent prices, optimizing rental income, and attracting suitable tenants. Previous research in the field of housing economics has explored various factors influencing house rent, including location, property size, amenities, economic conditions, and housing policies. However, some aspects of the rental market may have evolved or changed since those studies were conducted. Therefore, this research undertakes a fresh investigation to provide up-to-date insights into the current trends and patterns that shape house rent prices.

4.3 Result Analysis

TThe result analysis of property rent provides a comprehensive understanding of the factors influencing rent prices in the housing rental market. The findings highlight the significance of location, property size, amenities, economic indicators, housing policies, and seasonal variations in shaping rental prices. Armed with this knowledge, stakeholders can make informed decisions, ensuring a well-functioning and sustainable property rental market for both tenants and property owners.

4.4 Applications

The applications section explores the practical uses and potential benefits of the Property Rent Android app. Property Rent offers a user-friendly interface and versatile features that cater to a wide range of users and scenarios.

Prospective tenants can use the findings to make informed decisions about where to rent, considering factors like location, amenities, and seasonal variations. Understanding the impact of economic indicators can help tenants plan for rent fluctuations and negotiate rental agreements effectively.

Property owners can utilize the results to set competitive rent prices, considering the property's location, size, and amenities offered. Additionally, understanding the influence of economic indicators can help landlords anticipate changes in rental demand and adjust their pricing strategies accordingly.

Investors looking to enter or expand their portfolio in the property rental market can benefit

from the insights gained from the analysis. The findings can assist in identifying high-demand locations and property types, aiding in making informed investment decisions.

Housing policymakers can use the results to gain a deeper understanding of the factors driving rent prices. This information can inform the development of housing policies that promote affordability and stability in the rental market.

Overall, Property rent system user-friendly interface, versatile features, and efficient house management capabilities make it a valuable system for bachelor, family's, and industrial seeking personal organization. The app's adaptability and usefulness in various domains demonstrate its potential to enhance productivity, organization, and creativity.

4.5   Conclusion

This study presents an exploration of the experimental results derived from an in-depth analysis of the housing rental market. The findings shed light on the various factors that influence house rent prices, providing valuable insights for both tenants and landlords. As the rental market continues to evolve, understanding these determinants becomes increasingly crucial for making informed decisions in the dynamic and competitive housing rental landscape. The results of this study contribute to the existing body of knowledge in housing economics and can serve as a foundation for further research and policy-making in the field of housing affordability and rental market dynamics.
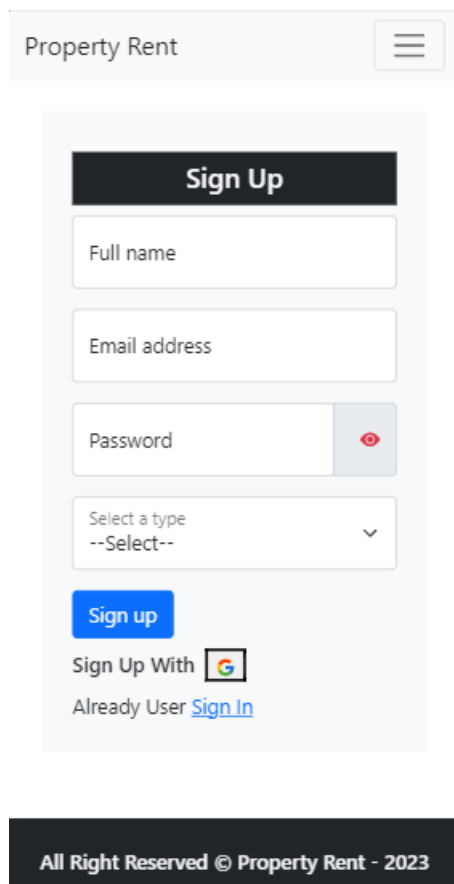
Chapter 5

User Manual

5.1 Introduction

Our application is a user-friendly Android Property Rent application. This chapter is a documentation of the user manual. We discussed in this chapter how users or managers will use this Android application.

5.2 Requirements

- Minimum Hardware Requirements: Ryzen 5 CPU, 8 GB RAM, 256 GB SSD, Android Devices(Physical Emulator)

- Minimum Software Requirements: HTML, CSS(Bootstrap), JS(React) for Front-end, Firebase for Back-end

- Built Tools: Mobile View(Virtual Emulator), VS Code Editor

5.3 Snapshots of the app

Figure 5.1: Sign Up Page
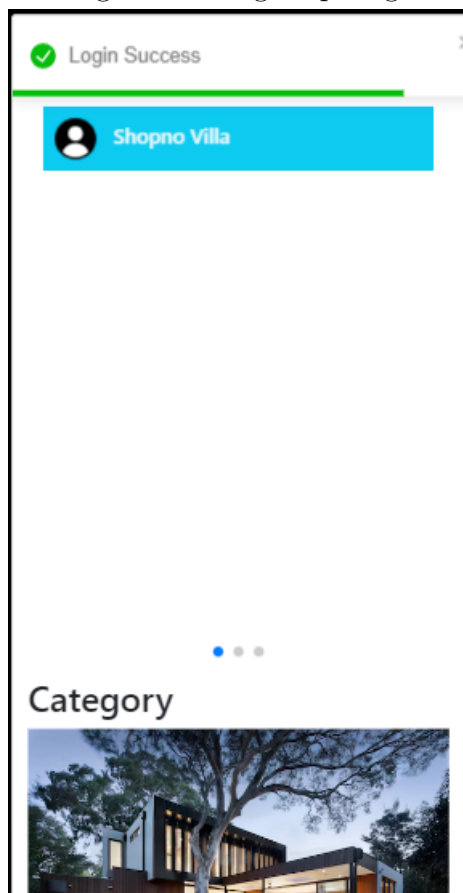
Figure 5.2: Sign In
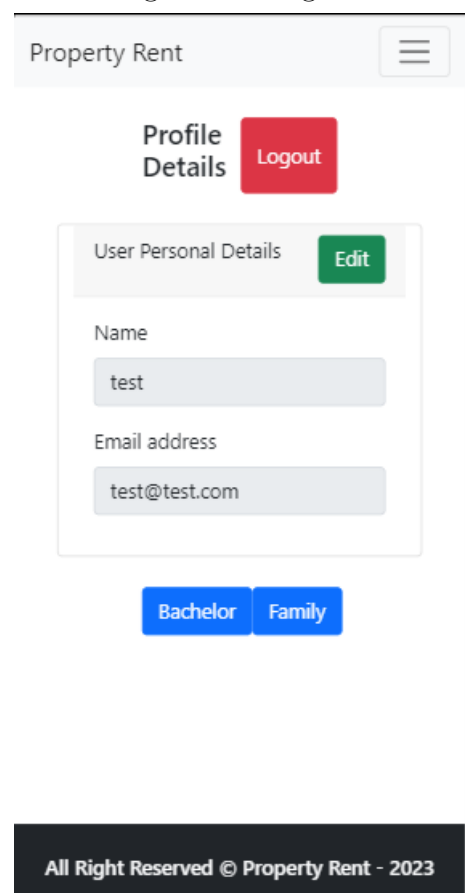
Figure 5.3: Success Massage
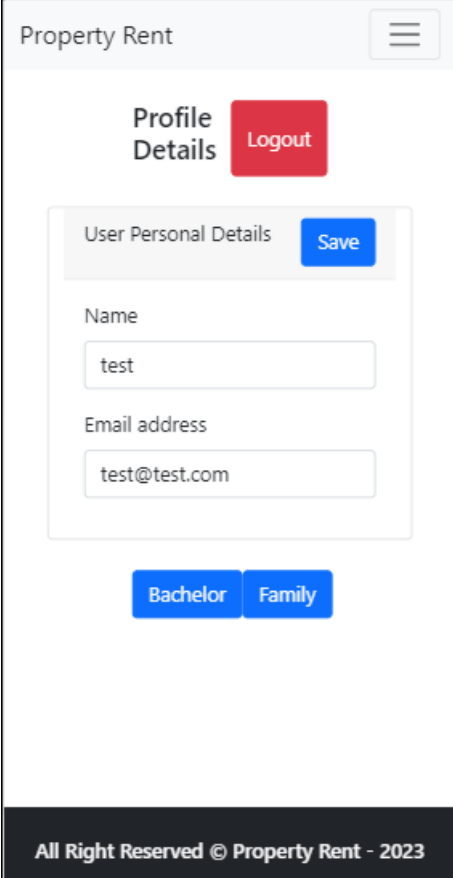
Figure 5.4: Profile Disable
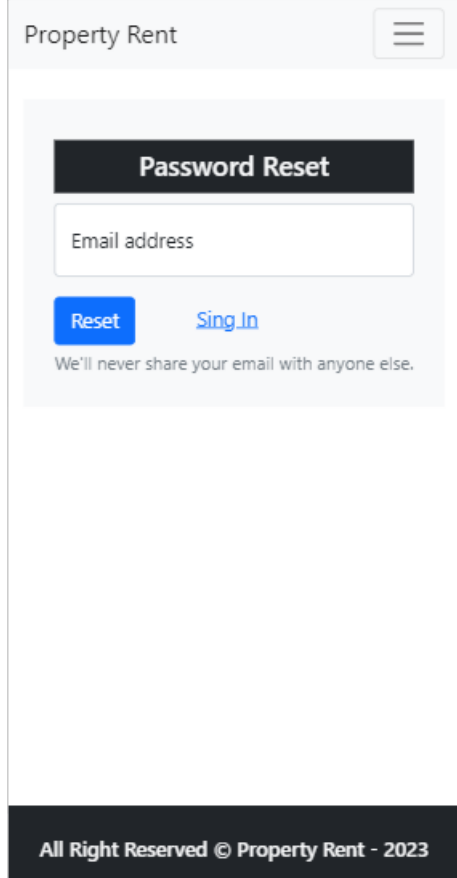
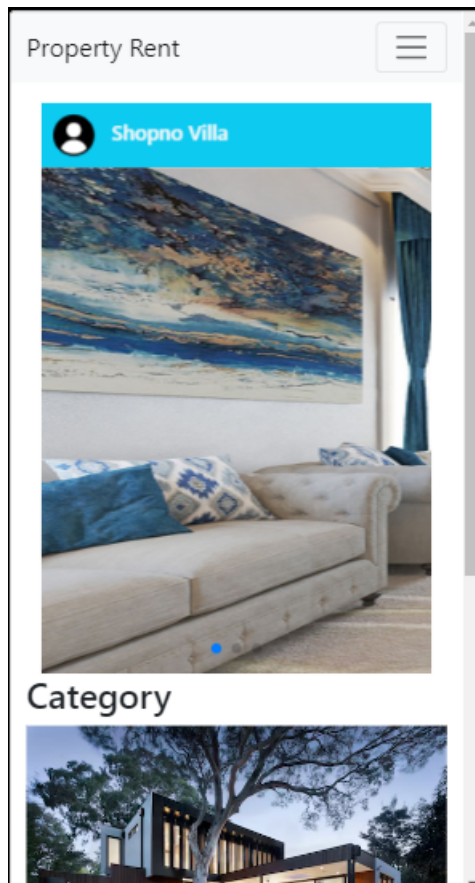Figure 5.5: Edit Profile

Figure 5.6: Reset Password

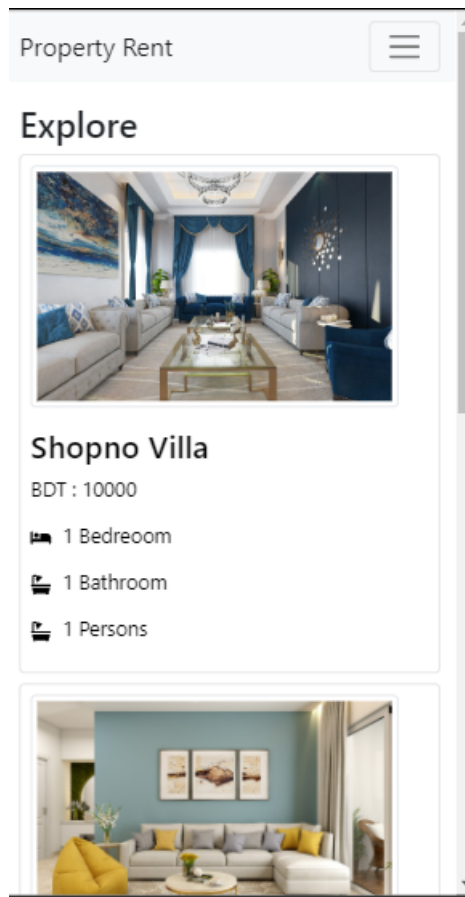Figure 5.7: Home Page

Figure 5.8: Home Page
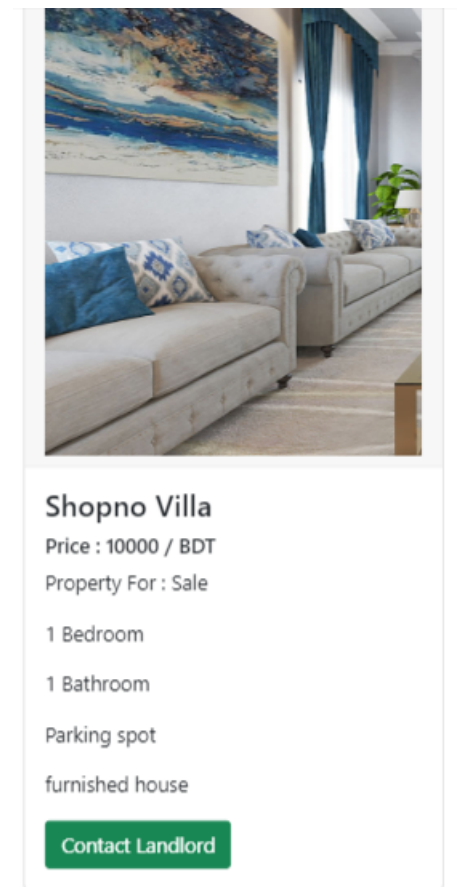
Figure 5.9: Explore Page
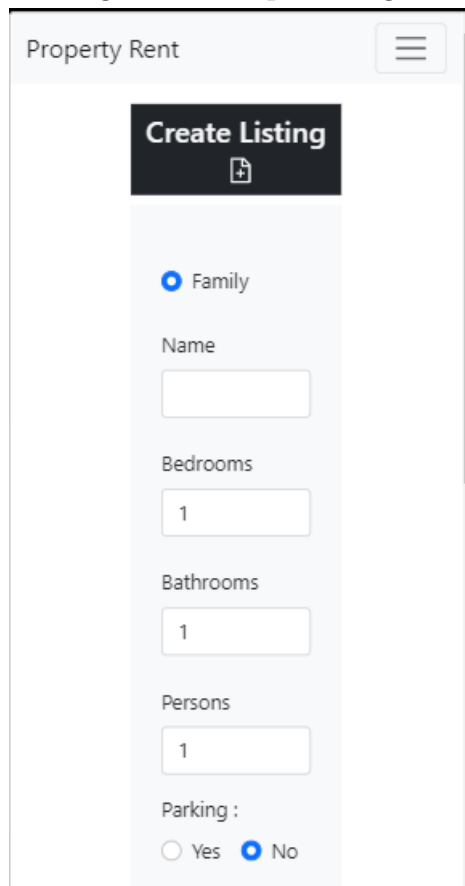

Figure 5.10: Explore Details

Figure 5.11: Create Listing

Chapter 6

Conclusion

6.1 Conclusion

A property rent system offers numerous benefits and efficiencies for both property owners and tenants. By transitioning from traditional paper-based processes to a digital platform, the property rent system streamlines the entire rental process, enhancing transparency, convenience, and accuracy. It simplifies the rental application and screening process. Tenants can submit their applications online, providing all necessary information and documentation in a centralized location. This eliminates the need for physical paperwork and enables property owners to easily review and assess applicants, saving time and reducing administrative burden.

The system improves transparency and communication between property owners and tenants. Rental agreements, lease terms, and payment schedules are all documented digitally, ensuring clarity and reducing the likelihood of misunderstandings. Tenants can conveniently access rental information, payment history, and maintenance requests through the platform, fostering a sense of trust and accountability. The system automates rent collection, making it more efficient and reliable. Property owners can set up recurring payment schedules, reducing the risk of late or missed payments. This automated process also provides tenants with payment reminders and receipts, enhancing convenience and eliminating the need for manual tracking.

So the benefiting both property owners and tenants. By leveraging technology, the system

improves efficiency, transparency, and communication, simplifies rent collection and maintenance processes, and provides valuable analytics for informed decision-making. Adopting such a system can significantly enhance the rental experience for all stakeholders involved.

6.2 Future Work

In considering the future development of our property app, there are several potential areas of improvement and expansion to further enhance the user experience and meet evolving user needs. Here are some future works to consider:

- **Maintenance requests:** The system facilitates property maintenance and repairs. Tenants can easily submit maintenance requests through the platform, and property owners can promptly address and track these requests, ensuring timely resolution. This streamlined process improves tenant satisfaction and property upkeep.

- **Enhanced Tenant Screening:** While the property rent system streamlines the tenant screening process, there is potential to incorporate additional features to enhance the evaluation of prospective tenants. This could include integrating background checks, credit history reports, and employment verification services to provide a more comprehensive assessment of applicants.

- **Expansion of Payment Options:** While the property rent system already offers automated rent collection, future work could involve expanding the range of payment options available to tenants. Integrating with popular digital payment platforms or exploring cryptocurrency payment methods could provide greater flexibility and convenience for tenants, accommodating their preferred payment methods.

- **Artificial Intelligence and Machine Learning:** Leveraging artificial intelligence (AI) and machine learning (ML) technologies can bring further efficiency and automation to the property rent system. AI-powered chatbots can provide instant responses to common tenant inquiries, reducing the need for manual intervention. ML algorithms can analyze historical data to predict rental trends, optimize pricing strategies, and identify potential risks or opportunities for property owners.

REFERENCES

- https://www.bproperty.com

- https://bikroy.com/en/ads/dhaka/apartment-rentals

- https://themeforest.net/search/property rental

- https://dribbble.com/tags/house rent website

- https://vobon.xyz/vobonAPP/r/vobon/vobonapp