

Research Article

RentEase

Ayu Kamareenna Abdullah Thani¹, Nur Alya Zulkifli^{2,*}, Nur Nabihah Ramalan², Nurain Fadhlin Aida Suaibon³, and Izzah Maisarah Abdul Rahman⁴

¹ Universiti Teknologi MARA Cawangan Kelantan; ayukamareenna@uitm.edu.my;  ORCID ID (https://orcid.org/0000-0001-7851-2354)

² Universiti Teknologi MARA Cawangan Kelantan ; 2023164897@student.uitm.edu.my

³ Universiti Teknologi MARA Cawangan Kelantan ; 2023513849@student.uitm.edu.my

⁴ Universiti Teknologi MARA Cawangan Kelantan ; 2023104395@student.uitm.edu.my

⁵ Universiti Teknologi MARA Cawangan Kelantan ; 2023148993@student.uitm.edu.my

* Correspondence: 2023164897@student.uitm.edu.my; 011-63371419.

Abstract: *The proposed system called “Student House Rental Management System” (RentEase) will focus on the housing rental process of non-resident students in UiTMCK in a bid to try to do away with the manual method that is currently being practiced. Currently, students use PDF listings that are mostly outdated, and directly contacting the owners of the properties often takes considerable time and effort, ineffective communication increases the possibility of fraud cases. By using the RentEase services, users have the opportunity to search for accommodation based on several criteria and in real-time and can also interact with property owners as well as make bookings and payments without leaving the online portal. These features will provide enhanced rental experience by allowing students to get personalized housing information on databases while at the same time helping property owners organize their listings on the database. However, the project has its challenges like the costs of developing such technology, the need for qualified developers and potential repentance from the users like the elderly property owners who may not be so conversant with App solutions. These issues can be managed to build trust and security and make the renting environment more smooth, convenient and easy to use for students and property owners themselves for the benefit of RentEase.*

Keywords: *Online Rental Platform; Real-Time System; Fraud Prevention; Online Booking; Rental Management; Technology Adoption.*



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1. INTRODUCTION

Currently, at UITM, the process for students to find rental housing operates through a manual system using PDF listings. Students receive PDFs of rental house listings from UPNR (Unit Fasilitas Non-Resident) at UITM. These PDFs contain essential details such as property locations, rental rates, and landlord contact information, and often include more than 20 houses with pictures and descriptions. However, this method presents several challenges. Firstly, students must manually sift through these PDFs, which can be cumbersome and time-consuming. Each inquiry requires direct contact with property owners, a process that lacks centralized management and can lead to delays in response times. Students need to call the property owners one by one to ask about availability, and if a rental house is no longer available, they must repeat the process with another owner. A study highlighted that manual systems often lead to inefficiencies and delays, making it difficult for students to secure housing promptly, which negatively impacts their ability to adjust to campus life (Ghani, 2020). Moreover,

because PDFs cannot be updated in real-time, there is a risk of encountering outdated information. Property listings may not reflect current availability, leading to frustration and wasted effort for students. Besides, there is not enough space for which people gather to discuss their experience or share any crucial information, which creates a security issue because scammers can create fake platforms or provide false information due to selfishness. For instance, several Universiti Malaysia Sabah (UMS) students reportedly lost about RM30,000 to rental scammers who posted fake advertisements on social media, requesting deposits for non-existent properties (Free Malaysia Today, 2023). Students may fall victim to these scams when they contact the listed number, only to discover that the property is unavailable, or the listing is fraudulent. Lack of a regulated, verified platform exposes these students to such deceptive people and practices leading to financial loss and psychological upset. Overall, while the current system provides basic information, using static PDFs makes the rental housing search for UITM students less efficient, transparent, and secure.

2. PROJECT OUTCOMES

The implementation of the "Student House Rental Management System" (RentEase) is designed to address significant inefficiencies in the current housing rental process for non-resident students. Currently, the system relies on manual PDF listings distributed by the university's Unit Pengurusan Non-Resident (UPNR). These PDFs provided information on availability on rental properties but often included outdated data information of house. Additionally, the lack of a centralized platform required students to manually contact landlords that leading to wasted time and effort when Students need to call the property owners one by one to ask about availability, and if a rental house is no longer available, they must repeat the process with another owner hence, this will prone to delays response, miscommunication, and potential security risks such as scams or fraudulent listings.

The system of RentEase will be designed to solve the major problems and inefficiencies that exist in the way for both students and property owner. This innovation in an advanced system enables real-time management and updating of rental information. With RentEase, students can easily access up-to-date and accurate housing details, eliminating the hassle of pursuing unavailable houses. With the advanced of the tools and features, students can now access advanced search with filtering options, allowing them to tailor their search criteria according to their budget, proximity to campus, and desired amenities. The system also incorporates an integrated communication platform, enabling direct and immediate interactions between students and landlords. This eliminates the need for external communication tools and significantly reduces delays.

Moreover, RentEase ensures security and trust as key outcomes to prevent fraud or scams. Property owners must register with the Student Affairs Department and undergo a rigorous verification process to have their listings approved. Prior to registering in the system, property owners are required to complete ID verification to gain access and log in. This significantly reduces the risk of students being scammed by unverified property owners. Additionally, the system enables secure online booking and payment, enhancing transparency and user-friendliness. Before making a booking payment, students must agree to the terms and conditions outlined in the agreement, minimizing the likelihood of last-minute cancellations. This feature also ensures the security of booking transactions, avoiding receipt fraud or payment losses for both. By offering a centralized platform, RentEase facilitates seamless interactions and transactions between students and property owners. These improvements not only enhance the rental experience but also contribute to the welfare and well-being of students at Universiti Teknologi MARA Cawangan Kelantan (UiTMCK).

3. PROJECT CHALLENGES

Developing an application for “Student House Rental Management System” (RentEase) involves several challenges. Identifying project challenges helps to overcome the challenges, a proactive approach is essential to ensure the application operates smoothly and avoids potential issues. By identifying challenges early, we can implement effective solutions that prevent disruptions and enhance overall performance.

One of the significant challenges in developing this application system is the cost of the overall development system. Building a platform with advanced features such as real-time property management, secure online transactions, and integrated communication requires a significant cost. However, creating an application with advanced functions and strong security measures can typically cost between RM230,000 and RM460,000. Additionally, to make sure the system keeps working properly over time, it will also require frequent updates and support. Since this project is designed to help students and property owners, managing costs effectively is very important. If the development costs are too high, it could strain the budget and delay the project, making it harder to complete the system on time.

The second challenge is hiring a skilled developer to build and maintain the system. This application may require expertise in multiple areas, including frontend and backend development, database management, mobile app development, and security. Finding developers with proficiency in specific technologies or platforms can attract the right candidates but making the process more competitive and time-consuming. Furthermore, hiring skilled developers often command high salaries, particularly those with significant expertise or particular knowledge. To securing the right personnel is challenging in terms of startups or smaller projects because the additional costs associated with recruitment, training, and onboarding can strain limited budgets.

Lastly, user acceptance on the new advanced system. Gaining user acceptance is essential to an application's success but every application comes with its own set of issues. Users have high standards for functionality, performance, and usability. Failure to meet these expectations can result in poor adoption rates and negative reviews. Somehow as students and property owners, they may be hesitant to change and adopt to a new advanced system due to unfamiliarity and skepticism. Some of the property owners who are elderly people, for example, are used to manual methods of entertaining and handling their tenants, however it may find the transition to digital platforms intimidating or unnecessary. Additionally, some of the users will be concerned about data security, privacy, identification verification of information and online transactions.

4. PROJECT SUCCESS INDICATORS

The potential indicators and situations that help us to know the potential ideas will be successful are no complaints made by the users about the application, tenants satisfied with the properties they secure and no fraud occurring. These indicators are efficiently used to comprehend the platform's capacity to offer a reliable, customer-oriented, and trustworthy rental service for both tenants and property owners.

Firstly, no complaints made by the users about the application means it works smoothly and does not frustrate the users. If people can search for properties, make payments, and communicate without facing glitches or confusion, it shows the app is doing its job. A user- friendly design, clear instructions, and an app that runs smoothly without bugs help ensure that people have a positive experience and do not feel the need to complain.

Secondly, tenants being satisfied with the properties they secure is a clear sign of success. This means they are able to find homes that meet their needs whether it is the location, price, or types of

properties. If the app provides accurate information and helpful filters, tenants are more likely to find what they are looking for and feel happy with their choices.

Lastly, no scams happening show the app is safe and trustworthy. Fake property listings or fraudulent payments can ruin user trust, so it is important to have strong security measures in place, like ID verification and secure payment systems. When users feel confident that they will not be scammed, they are more likely to trust and keep using the app.

5. CONCLUSION

The "Student House Rental Management System" (RentEase) solved the complex issues which students at UiTM faced while searching for housing. This project implemented a smooth rental process through features which included real-time system updates while providing property owner verification and advanced search filters and secure online payment functions. Through its centralized platform the system delivers improved search capabilities which helps students locate proper housing rapidly and protect them from unverified listings or incorrect data.

Extensive research combined with stakeholder feedback and interviews resulted in the development of a solution which meets the specific requirements of both students and property owners. The system reduces accommodation search time while improving student-landlord communication and helps create a safer rental environment through verification features.

Through its automated features RentEase delivers peak-season housing search efficiency through centralized management of tasks that were previously handled manually. The system operates with challenges because it depends on landlord real-time updates of listings, and it can experience technical difficulties during extremely active periods. User acceptance presents an ongoing challenge since older property owner resist switching from traditional rental methods.

Future development of the system should concentrate on artificial intelligence-powered recommendation capabilities while introducing virtual property tours to complement the current system design and enable scalability for use in other facilities beyond UiTM. The solution's capabilities will improve through additional development along certain aspects to become an advanced rental housing management system.

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