

Article

The Planning Process of “HOMERESC” Home Service System

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Abstract — This paper presents the planning process of the HOMERESC mobile application, the home service system. In contemporary times, locating companies or individuals providing home repair services has become increasingly challenging. Home repairing services in Malaysia encompass a range of maintenance and renovation tasks to enhance the condition and functionality of residential properties. Some examples include the Taman Seri Berembang flat building, which was formerly in critical condition. A 22-year-old complex of flats with 30 homes was discovered to be damaged and unsafe to live in. Therefore, a mobile application named "HOMERESC" Home Service System was developed to address all the issues and ensure the welfare of users. The name 'HOMERESC' was chosen to represent this application's ability to "rescue" all damaged homes. An Agile methodology has been used to build this system, ensuring the project's goals are met and the development process goes smoothly. The implication of the research suggests that the mobile application offers a secure and viable solution for home repair services. In conclusion, the research demonstrates that the HOMERESC mobile application could enhance the safety and welfare of residential property owners.

Keywords — maintenance; damage; homes; mobile application; rescue

I. INTRODUCTION

The 'HOMERESC' project aligns with the global effort to eradicate poverty and promote sustainable development. Poverty reduction requires comprehensive approaches encompassing economic growth, education, healthcare, social protection, job opportunities, and environmental preservation. In this context, the project is in harmony with the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda, which world leaders embraced in September 2015 [1],[2]. The research aims to contribute to realising SDG 11, which focuses on making cities and human settlements more inclusive, safe, resilient, and sustainable. 'HOMERESC'

achieves this goal by offering a mobile app platform that efficiently connects homeowners and renters with a diverse pool of trusted professionals providing essential home services. By facilitating easy access to these services, the research plays a vital role in ensuring that urban and settlement populations have the means to enhance and maintain their living spaces, thus progressing toward a more sustainable future.

Back when Movement Control Order (MCO) started, people were forbidden to leave their homes during that time. The 2020–21 Malaysia Government Movement Control Order (MCO) was a set of countrywide quarantines undertaken by Malaysia's federal government in response to the COVID-19

epidemic [3]. To combat the spread of SARS-CoV-2, MCO actions included limitations on mobility, gathering, and traveling abroad. Therefore, only those who provide housing services, such as delivering goods or food and repairing services, can go outside. Even though it initially appears that people will have enough time to locate reputable repair services for their homes, movement control prevents them from venturing outside to look at the stores. As a result, they would not bother to fix the damage, which causes it to worsen and turn from a little issue to a major one that could require a mortgage.

Next is for those who just moved into a new house and neighborhood. Newcomers may have limited knowledge about the local service providers and professionals available in their new area. They may not be familiar with reputable service providers, trusted contractors, or reliable handypersons. Moreover, it may be more convenient for them to discover the service just through the app since when settling into a new home, newcomers often require various services, such as home cleaning, furniture assembly, plumbing, or electrical work [4].

Hence, a home service app called 'HOMERESC' was created, offering a convenient platform for newcomers to discover and connect with professionals offering these services. It saves newcomers the time and effort of researching and contacting individual service providers, simplifying the process of finding, booking, and managing home services in an unfamiliar area. Plus, since it is a mobile application, people do not have to go out to find someone who can repair the damage to their house [5]. In short, 'HOMERESC' is an application that provides a reliable and convenient platform to access trusted professionals, ensuring a smoother transition and a positive home service experience.

The three research questions are: (i) What are the functions and features of the HOMERESC mobile app? (ii) What are the requirements for a secured HOMERESC mobile app? (iii) How can the HOMERESC mobile app be ensured that it works?

The three research objectives are: (i) to identify the function and features of the HOMERESC mobile app, (ii) to investigate the requirements for a secured HOMERESC mobile app, (iii) to conduct user acceptance testing to ensure that the HOMERESC mobile app is working.

II. PROBLEM STATEMENT

The current mobile application that offers home services to those in need lacks specific information about the repairman who would handle the damage to the residence. Detail information about the repairman's qualifications, such as their capability to carry out the assigned job and the language that they employ to communicate, is essential information that should be applied in the system to win the user's trust and ensure that there are no problems between the supplier and client, particularly in communication. Therefore, communication between the two sides will be more accessible, and there won't be any miscommunications or disagreements [6].

These applications commonly provide diverse products across various categories, giving users more options to explore and discover. The abundance of choices increases the likelihood that users will spend more time browsing through different services to find solutions to their problems [7]. Also, users may spend significant amounts of time browsing listings or simply scrolling through the app, which can detract them from more important tasks or responsibilities.

Even though existing applications have safeguards to reduce fraud and scams, these things can still happen. Users who spend too much time on the app can encounter phony listings or people, which could result in loss of money or even physical damage [8]. It results from the customary buying process, in which the owner is paid directly before the buyer visits the client's home. Therefore, some careless people would continue to lie to their clients and then block them from hiding their activities. Users are reluctant to make card payments in advance because most businesses do not have a physical presence. As a result, a validated e-commerce platform might inspire trust because it is legitimate and well-known [9]. This makes clear the requirements for this website, where dependable administrators will keep all operations, including booking services and payments, under close watch.

Some homeowners and tenants might have trouble locating trustworthy experts to repair their houses. It might have resulted from several circumstances, such as mixed ratings and reviews or limited recommendations [10]. Users may believe it is tough to make decisions because of inconsistent reviews and ratings, which can be subjective. It also makes judging the reliability of service providers difficult. Users may experience uncertainty when selecting a trustworthy professional due to conflicting perspectives or inappropriate reviews [11]. Moreover, given limited suggestions, people frequently rely on personal recommendations from friends, family, or neighbors when looking for trustworthy specialists. However, there might only be a small selection of recommendations, particularly for specialised or niche services, leaving renters and homeowners with few reliable options.

III. LITERATURE REVIEW AND PREVIOUS WORKS

A few existing home service applications provide various services for homeowners and renters, especially considering the 2020 COVID-19 outbreak of the coronavirus. They may have gone outside to explore the world through their phones because they were forbidden from leaving their homes, and when they did, they discovered all kinds of information, including home care apps. Even if they are no longer imprisoned, they use the application if their home sustains harm. They realised that life was easier because they could find the appropriate professionals to come to their homes and fix the damage by simply sitting in one spot and scrolling through their phones [12]. Fig. 1 compares phone usage between 2020 and 2021. For e-commerce, phone usage was higher in 2021 (64.7) than in 2020 (45.0) [13]. This proves that in today's modern world, people prefer to look up information on their phones rather than going out and taking studies.

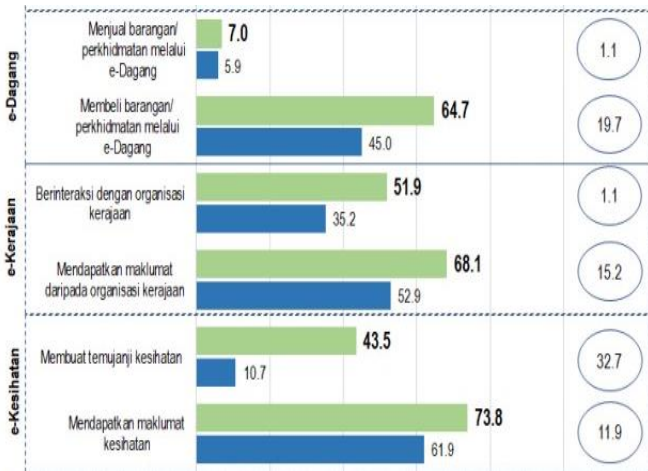


Fig. 1 Percentage of Individuals Using the Internet by Type of Activity Selected, Malaysia, 2020 and 2021

Servis Hero (Fig. 2) is an app-based system that offers various services to tenants or homeowners looking for help providing home service for people. Users can select service issues, making identifying, booking, and managing home services easier [14]. These services are all provided by exceptionally skilled and knowledgeable carers.

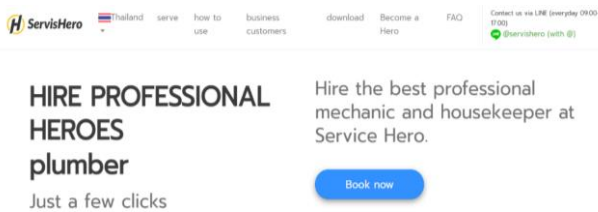


Fig. 2 ServisHero mobile application

The service marketplace app connects users to trusted providers for daily needs at no additional cost. Through Zonar (Fig. 3), users can compare prices, have a specialist freelancing society, have excellent visibility, and have easy interaction, all for no extra charge [15].

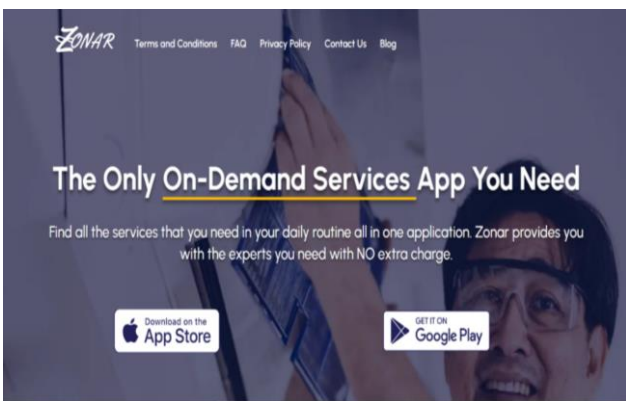


Fig. 3 Zonar mobile application

Carousell (Fig. 4) is a Singaporean smartphone and web-based consumer-to-consumer and business-to-consumer marketplace for buying and selling new and second-hand goods. It is headquartered in Singapore but also operates in Malaysia [16].

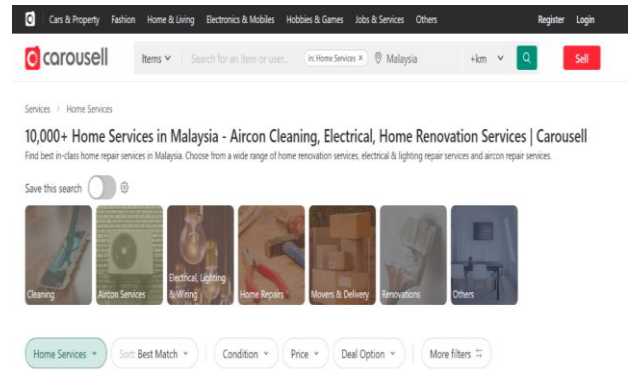


Fig. 4 Carousell mobile application

APPLICATION	LOGIN	USERS OF THE SYSTEM	FOCUS OF THE SYSTEM	REAL-LOCATION TRACKING FEATURES	SEND NOTIFICATION	BOOK ON SPECIFIED TIME AND DATE	PAYMENT
	YES	Supplier/ Client	Offers household services, Vary options of service supplier(s)	YES	YES	YES	Online instant payment, Cash on delivery.
	NO	Supplier/ Client	Offers household services, Vary options of service supplier(s)	YES	YES	YES	No payment was made via the app
	YES	Supplier/ Client	Offers various features including household services, Vary options of service supplier(s)	YES	YES	NO	Online instant payment, Cash on delivery, E-wallet

Fig. 5 Comparisons for Each Existing System

According to the current system (Fig. 5), a few elements are not implemented, leading to systemic faults. First, several applications already in use allowed users to access the system without registering or logging in. When registering for the booking procedure, the user must provide personal information, like their name, address, phone number, and email address. Keeping these sensitive data private and secure is crucial to protect the user's privacy and stop unauthorised access. Additionally, users won't be allowed to pick who would fix the damage to their home. For various factors, including personal preferences and reliability, choosing the correct repairer can be essential to the system. No matter if the person is the same gender as them or not, some clients may have personal preferences that affect how much they trust someone to visit their private regions. Additionally, some apps do not offer a variety of payment methods. Some users may encounter difficulties if only one payment option is available for that software. What happens to senior people who do not have Internet banking, for instance, if the application only allows online transactions and does not offer an old-fashioned payment option? They will find it difficult to pay for the service in this circumstance.

A mobile application is software designed for mobile devices like smartphones and tablets. It is most usually referred to as an app. It comprises a collection of software components, infrastructure, and user interfaces to give users specific functionalities and services on their mobile devices. Users can easily interact with the features and services of mobile application systems because of their intuitive user interfaces that are typically optimised for touch input and smaller screens. After all, these mobile application systems provide users in academic or non-academic settings with various learning opportunities such as portability, social

engagement, context sensitivity, connectedness, individuality, and affordance.

Data protection is essential in any computer-based system since it will encounter so much private and sensitive data. It is common knowledge that personal information such as age, phone number, address, and potential banking details are required when registering for online applications. Only reliable internet platforms, including e-commerce, should be responsible for all this data. User data must be handled with the utmost care because users have trusted it while establishing a positive reputation in the public eye. For instance, the login feature is an authentication technique that ensures the user's identification. It is widely believed that the entire system is unreliable and unsafe if the login page is already unsafe. Although no modern technology can completely protect its users from threats, having a solid defence against them is the least that can be done.

Password complexity is among the most critical factors in securing mobile application systems. A password that is difficult to guess or crack may help protect the user's account from unauthorised access. A complex password can prevent unauthorised access to the account even if the user's device is lost or stolen. There are a few reasons why a user's account can be protected by using complicated passwords. First and foremost, a password is the only thing between an attacker and a user's account. On the other hand, attackers' password-cracking methods are constantly changing, making it necessary to create strong passwords. Users should comply with a few guidelines when creating complicated passwords, including requiring the password to be at least eight characters long and contain a combination of upper and lowercase letters, digits, and symbols. Additionally, the password shouldn't be a term or phrase easily guessed, such as username, date of birth, or relative name. As one of the security components, password complexity will, therefore, be used in the "HOMERESC" system during registration and login.

File restrictions can function as one of the security elements in mobile application systems by limiting access to and manipulation of sensitive files and data. By implementing file limitations, the programmes can ensure that only authorised users or processes can access files or folders. This helps prevent unauthorised users or malicious apps from accessing critical data. Additionally, it restricts the kinds of activities that can be carried out on files. For instance, limiting the writing or deleting actions on critical systems or configuration files might stop unintentional or deliberate manipulation that might jeopardise the security or stability of the programme. Third, with file restrictions, the privacy and confidentiality of the user will be secured as it can enforce strict access controls on sensitive data files, ensuring that they are only accessible to authorised users or specific components of the application. This will help to prevent unauthorised reading or modification of critical information. Therefore, file restrictions will be applied to the 'HOMERESC' system as one of the security elements.

Email verification can serve as an element of security in several ways. First is user authentication, where email verification is often used to authenticate users during the registration or account creation process. Requiring users to verify their email address helps ensure that the person signing

up for an account is the legitimate owner of that email address. This adds an extra layer of security by preventing unauthorised individuals from creating accounts using someone else's email. Next, account recovery and password resets also seek email verification. For instance, email verification can be vital when users forget their passwords or need to recover their accounts. Users can confirm their identity and initiate the account recovery or password reset process by sending a verification email to the registered email address. This helps prevent unauthorised access to user accounts and adds security measures to protect user data. After all, email verification adds an essential layer of security by confirming the authenticity of user accounts and preventing unauthorised access. Hence, adding this security element will increase the HOMERESC home service system's security level.

The user's application of security aspects for the registration section is one of the significant holes noted in this research. Giving the same permission to people who do not register or log in is something to consider. This is because any application that asks users to log in acts as its first security line against hackers. At this point, users must authenticate themselves to access any sensitive data or features. A secure login page is necessary to shield users from assaults. Additionally, a flaw in the system will be identified about the awareness of factors to be considered when selecting a repairer. It aims to gain the client's trust by allowing a stranger to enter their place and protect clients' privacy.

IV. METHODOLOGY

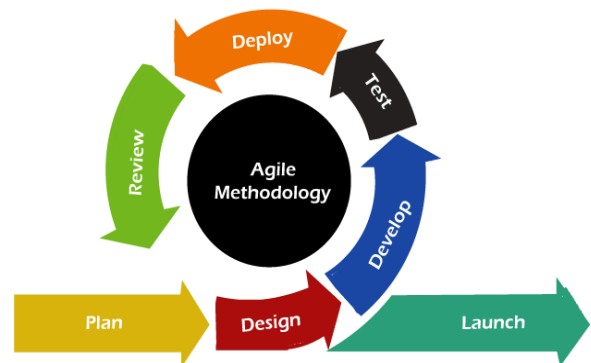


Fig. 6 Agile Model

Careful research and preparation are effective strategies to develop a sound system. Several methodologies or conceptual frameworks can be employed, including the well-known Software Development Life Cycle (SDLC) method and the agile, spiral, and waterfall models [17]. Regarding this "HOMERESC," the proposed technique was decided upon using the agile model after taking the size of the project and the developer's experience. There are six phases in the Agile Model, which are planning, design, development, testing, and deployment, as illustrated in Fig. 4.

McKinsey & Company, a management consulting firm, claims that "agility is catching fire" as businesses begin to see the benefits of the Agile technique in the modern workplace. Agile methodology is, therefore, the best option for developing mobile applications for several reasons. The first

point is adaptability and flexibility. Mobile app development is a dynamic process that frequently involves shifting market conditions and increasing requirements. Agile methodologies encourage iterative development and continuous feedback, which promote flexibility and adaptation. It helps programmers swiftly react to adjustments, consider user input, and modify the app's features and operation as necessary. The second is about a user-centric approach, in which mobile apps must evaluate users' requirements and preferences to compete in a highly cutthroat market. The agile development style places a strong emphasis on user input and feedback. It enables regular user testing, validation, and the implementation of user input into the app's layout and features. Apps that better match user expectations and produce higher user satisfaction are developed using this user-centric approach. The agile methodology is significant for this project because it allows for the development of high-quality mobile apps that live up to user expectations, adjust to changes, and benefit enterprises and end users.

System requirements are the most crucial element in any software development process because they will be used throughout the entire process. This system intends to establish a safe home service system and conduct user acceptability testing to guarantee the 'HOMERESC' home service system is functioning correctly. Research has been undertaken using journals, papers, news, and the Internet to gather information and accomplish all the project's objectives. All potential challenges will be listed during the analysis to avoid future defects or errors throughout the development phase.

For this project, it is unquestionably preferable to have a prototype system overview to familiarise the subsequent phases. Therefore, a conceptual plan for the app-based system will be suggested and chosen at this stage. There are, at most, two subphases to a design: the logical phase, in which all data will be specified into conceptual and theoretical concepts, no physical design will be put into practice, and the physical phase. The result of this logical step will subsequently be translated into a physical design, which will provide the client with a precise specification. Along with the unique features, the following specifics need to be described:

- 1) User Interface
- 2) System Interface
- 3) Databases
- 4) Software and network requirements

This phase includes the system structure, flowchart, and diagrams like the Entity-Relationship Diagram (ERD) or Unified Modelling Language (UML). The developer could easily find and choose any more features because the potential difficulties and early concepts could be gained and drawn out.

This research's actors and roles are listed in Table 1: Administrator, Provider, and User.

Table 1. System's Actor and Role

Actor	Role description		
Admin	<ul style="list-style-type: none"> ▪ Update system ▪ Monitor activities. ▪ Content management. ▪ View and approver provider and user activities 		
	Provider	<ul style="list-style-type: none"> ▪ Update skills ▪ Update status ▪ Update profile ▪ View the booking 	
		User	<ul style="list-style-type: none"> ▪ Search service ▪ View catalogue ▪ Update profile ▪ Book the service

V. REQUIREMENTS

Fig. 7 is the Use Case Diagram for this project, illustrating the user and their tasks throughout the system.

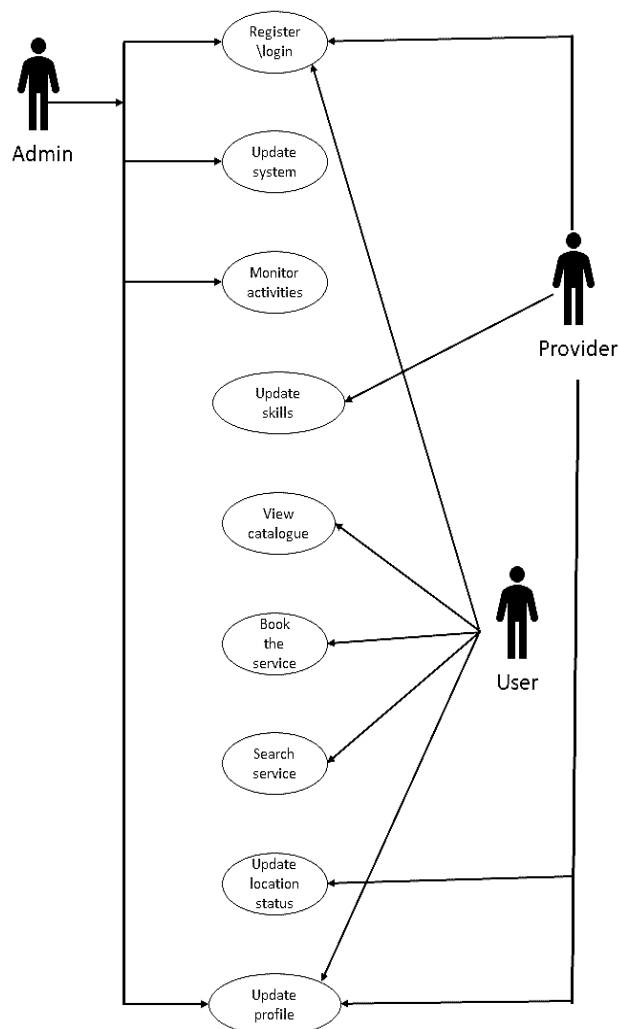


Fig. 7 Use Case Diagram

Fig. 8 is the diagram for system database design that describes all attributes and entities and the relationship between entities.

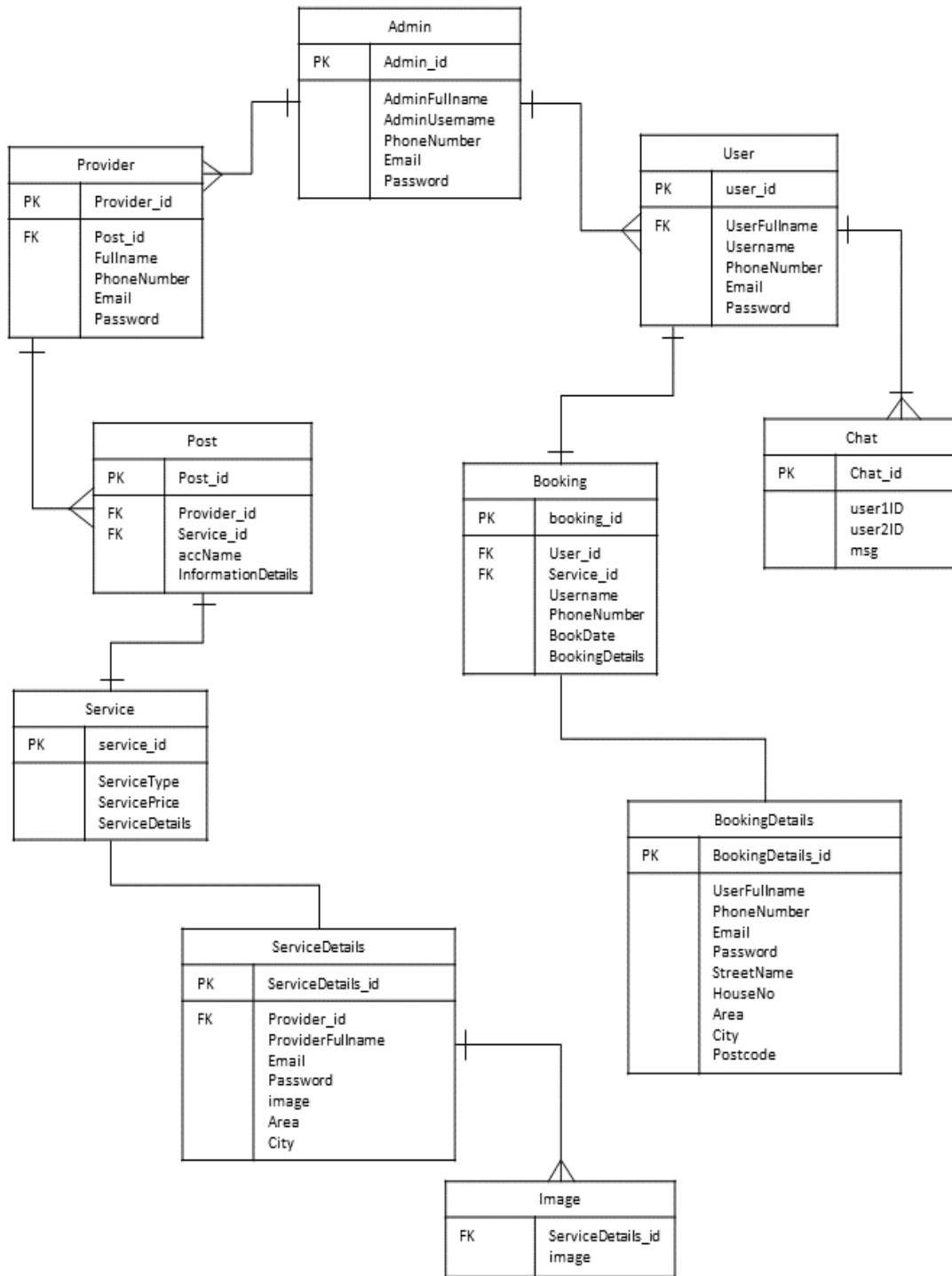


Fig. 8 Use Case Diagram

Flowcharts are one of the most used design diagrams. A flowchart is a visual depiction of the system's algorithm that aids developers in decision-making. It also includes a more straightforward graphical language to aid understanding of the steps and flow.

The flowchart for this research was created based on the system's users and their process illustrations across the system. As a result, three flowcharts were created: one for the end user, one for the provider, and one for the administrator. The flowcharts look like this:

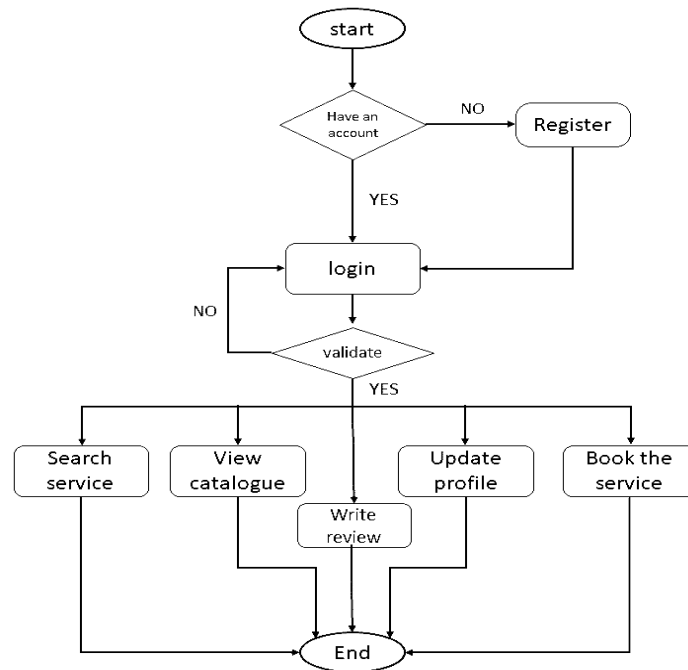


Fig. 9 User Flowchart

The flows for users in this system are illustrated in Fig. 9, where users were only allowed to browse the system if registered. Upon logging in to the system, users shall be able to do all the operations such as:

- I. **Search service** - A search feature is included in the system to help users find solutions to their specific problems quickly.
- II. **View catalogue** - The user can view the list of services provided within the system.
- III. **Write review** - Once the service is performed, the user can give an appropriate rating and write about their experience with the service provider.
- IV. **Update profile** - Users can update their information details, such as name or address, in the system and change passwords if needed.
- V. **Book service** - Users can book any available service and choose any payment method, such as online banking or COD.

Even so, if the consumer does not already have an account, they must register and re-login to use this system. The validating step in the flowchart illustrates how the login process will work, with only existing and registered username and password credentials authorised. An unsuccessful combination checked on the database will be returned to the login page for retry.

The provider flowchart in Fig. 10 then describes the provider tasks in the system, which are identical to the user's flow for the login and registration portion but differ in the operation phase. Providers will be allowed to carry out the following operations:

- I. **Manage clients** - The provider will be given priority in deciding whether to accept or reject the client's request.

- II. **Update status** - Once the services have been done, providers must update the status.
- III. **Update Profile** - Provider can update their profile, such as profile picture or add more details to gain users' trust.
- IV. **View booking** - When users book the services, the provider can see them through their account.

At last, Fig. 11 depicts the flow of administrative duties. This system's administrator is responsible for most system functions, including:

- I. **Update system** - The administrator will make all new updates or maintenance, suiting users' comfort.
- II. **Monitor activities** - Admin monitored all user and provider processes throughout the system.
- III. **Content management** - Admin can restrict content uploaded by users and providers. Only after admin approval will the content be displayed.
- IV. **View and approve users and providers** - Only authorised users and service providers will be permitted access by the administrator.

The system development process then moves on to the coding or implementation phase, where all the information acquired and designed is transformed into an executable format. The following are a few of the primary areas that will be coded and created in this development:

1. Registration
2. Log In
3. Categorise and Catalogue
4. Booking Status
5. Chat Activity
6. Database management

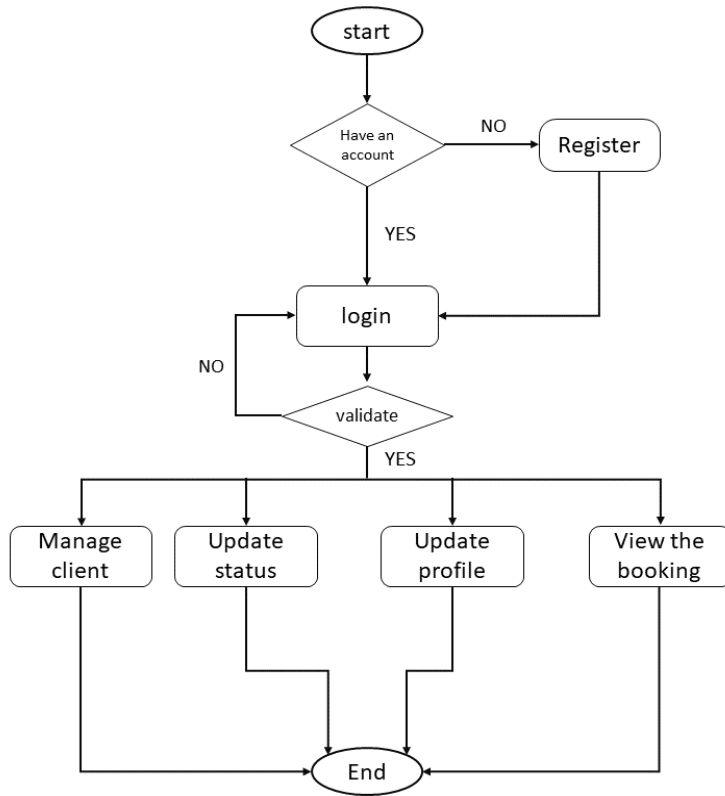


Fig. 10 Provider Flowchart

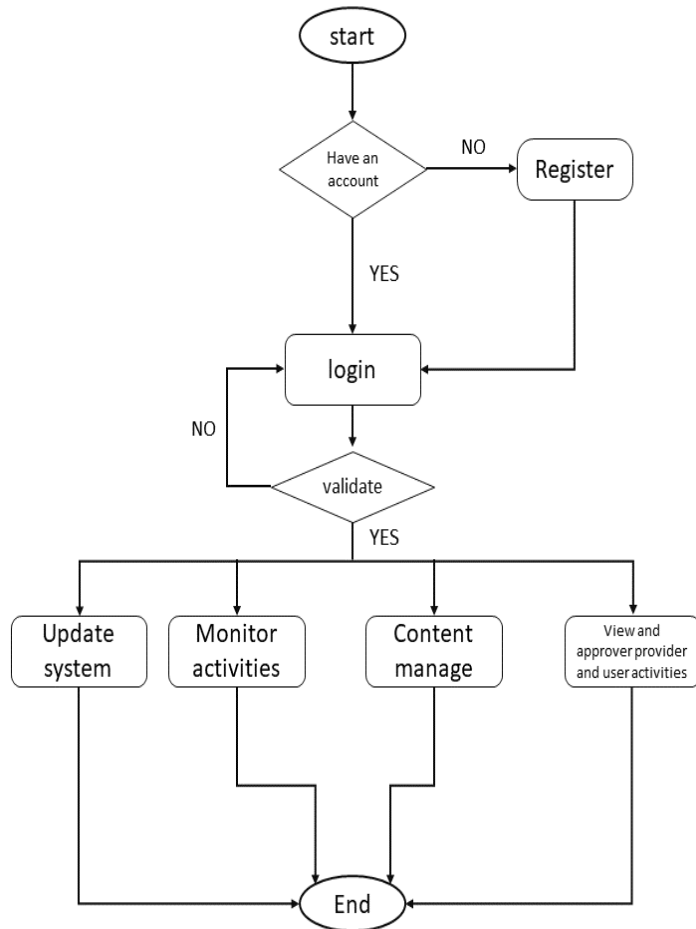


Fig. 11 Admin Flowchart

Several programming languages, such as HTML, CSS, PHP, and JavaScript, could be used. Table 3.2 explains the project software requirement that shall be used throughout the implementation process.

Table 2. Software Requirements

Language/Tool	Description
XML	The language used to describe the layout in the Android application.
Firebase	A platform to store the data in the database. There are two databases in Firebase: Realtime Database and Firestore Database.
XAMPP	Used to test the system before being launched
Canva	A tool to create a prototype design of the proposed system.
Android Studio	A tool used to write code for Android applications in Java and Kotlin language

Testing is essential, and ensuring the system performs as anticipated and meets all requirements is necessary. To ensure a bug-free operation, it must be monitored, identified, and managed for all defects and vulnerabilities. User Acceptance Testing and Functional Testing will be performed during this phase. All testing will continue until it fully satisfies the project's objectives.

After all the phases have been completed, the maintenance phase is the final to be considered. This stage is crucial for the system's functionality assurance. The system can need modifications or repairs after the system is launched or when the users want changes. If technological vulnerabilities arise, software maintenance will also be necessary.

VI. FINDINGS AND DISCUSSION

The graphic user interface (GUI) or system interface design is the focus of this section. All the predicted system development results will also be shown in this chapter. The implementation phases will be carried out based on these interface designs to build a functioning system based on the draft. Nevertheless, the designs were provided with a clause allowing for adjustments as they were being developed. The following attachments show and list the interface design to help visualise the concept of the HOMERESC home service booking system.

Login is the most critical phase of this system because no one can use it unless logged in. Fig. 10 on this page illustrates that users must enter their existing login and password in the correct combination. Otherwise, if the credentials do not match the existing database, the system will not enable the users to log in. A forgotten password option will also be introduced, allowing users to reset their password if they forget it to access the application.

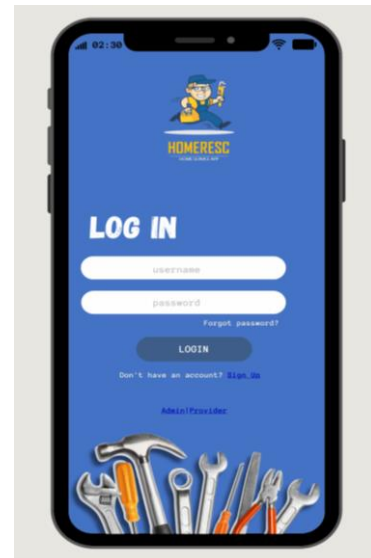


Fig. 12 Login page

All users will be required to have at least one account before they may access the website. As a result, the page depicted in Fig. 13 will appear to save all the users' information in the databases. Only newly registered users will be retained in the databases, while current credentials will remind them of their existing account and take them to the login section.

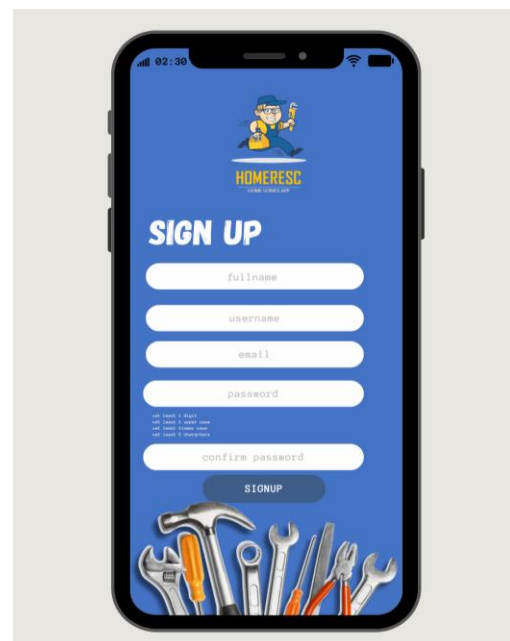


Fig. 13 Sign Up Page

Users need to insert the email address that they have been registered to, and the link to reset the password (Fig. 14) will be sent to that email.

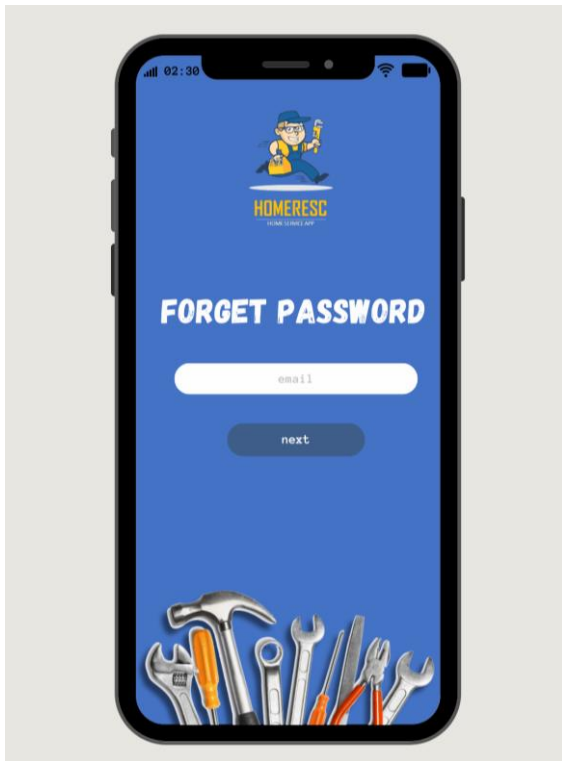


Fig. 14 Forget Password Page

Fig. 15 depicts the application's home page. All users can see a list of service categories on the system's home page. To get further into the specifics of the problem, the user can go to the search fragment and search for the problem. When a user clicks on one of the categories, a list of service providers related to that category is displayed.

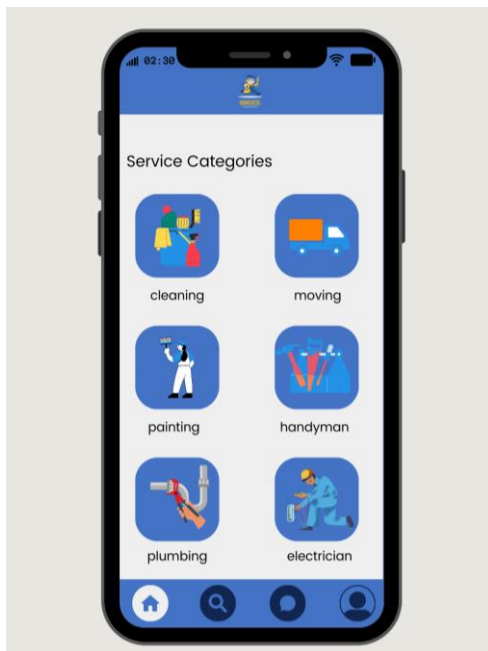


Fig. 15 HomePage

In Fig. 16, users can search for the specific service they require. The user can also filter the difficulties by the type of difficulty they are experiencing, such as knob installation or a loose tap. Users may also sort the prices from lowest to

highest or highest to lowest and filter the state to find the provider closest to them.

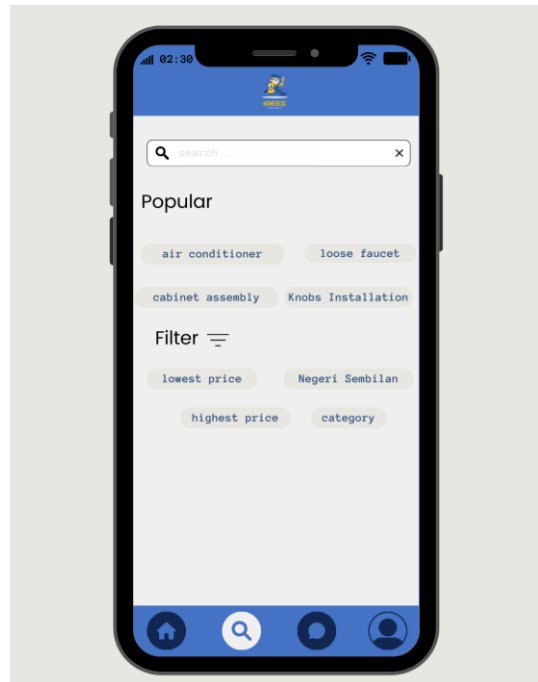


Fig. 16 Search Page

Fig. 17 and Fig. 18 show that this page will show the list of users or providers that have chatted with. In the chat activity page, the user sends a message to another user and shows whether the user is 'online' or 'offline.'

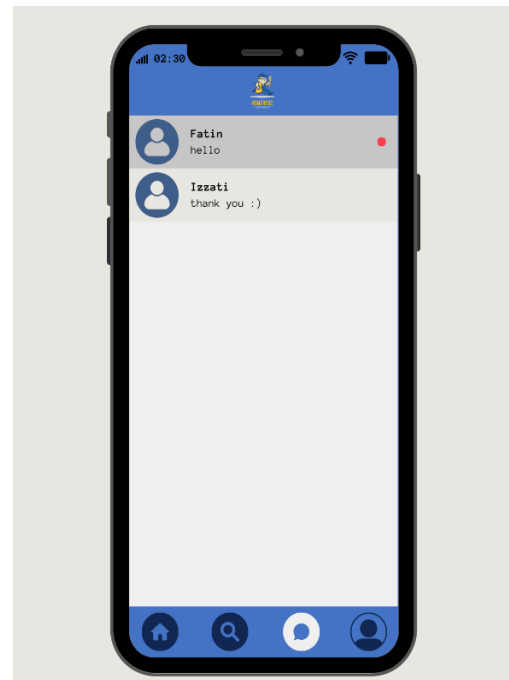


Fig. 17 Chat Page

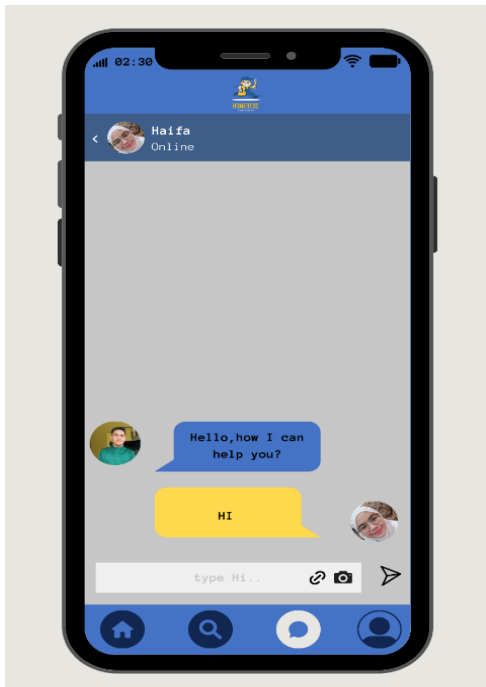


Fig. 18 Chat Activity Page

is pleased, they can book the services by clicking the 'book now' option. When the user clicks the 'book now' button, they are taken to the booking page.

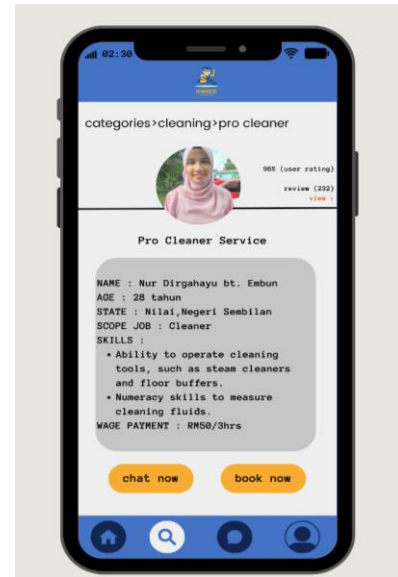


Fig. 20 Service Detail Activity Page by Individual

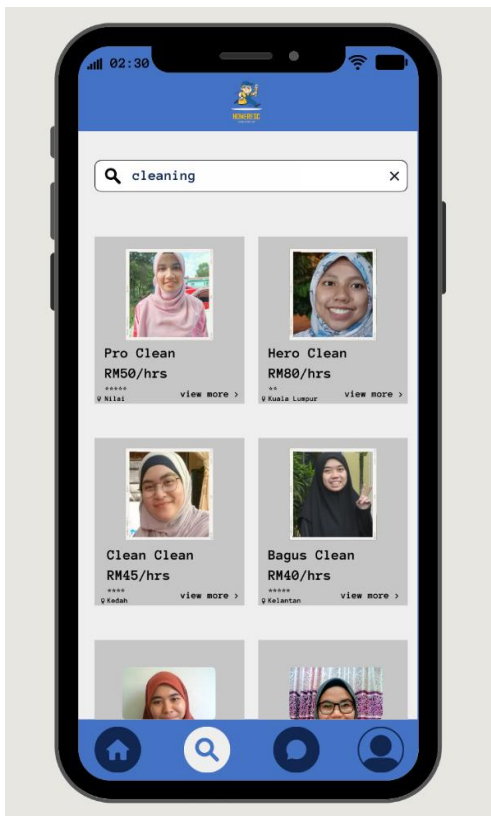


Fig. 19 Service Detail Activity Page

When a user clicks on one of the categories on this activity page (Fig. 19 and Fig. 20), a list of all the selected providers is displayed to the user. The user can view additional information about the provider by clicking on 'view more'. If a user wants to ask a question regarding the services, they can do so by clicking the 'chat now' button on that page. If the user

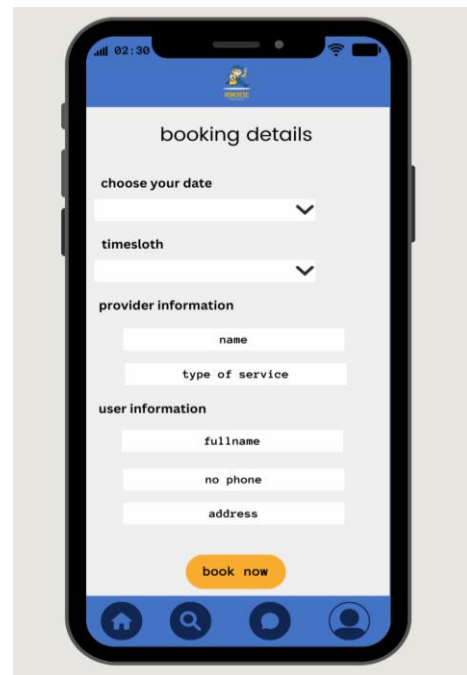


Fig. 21 Booking Page

Users must enter all needed information, such as the booking date (Fig. 21), time slot, username, phone number, and address. The provider details will be filled out automatically.

After receiving a service, users can submit their rating and optionally provide additional comments or feedback about their experience. They are also given a rating scale (Fig. 22), ranging from 1 to 5 stars, to evaluate their experience with a particular service provider.

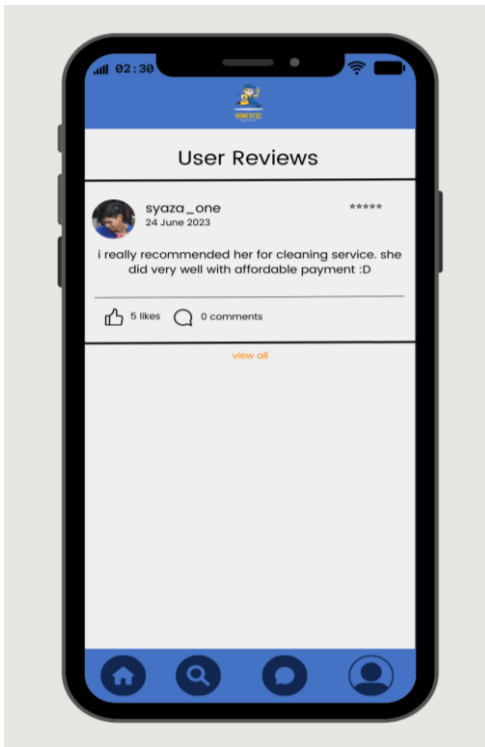


Fig. 22 User Rating Page

For the admin page (Fig. 24), the homepage will show the list of admin activities like dashboard, user and provider management, analytics, and content management.

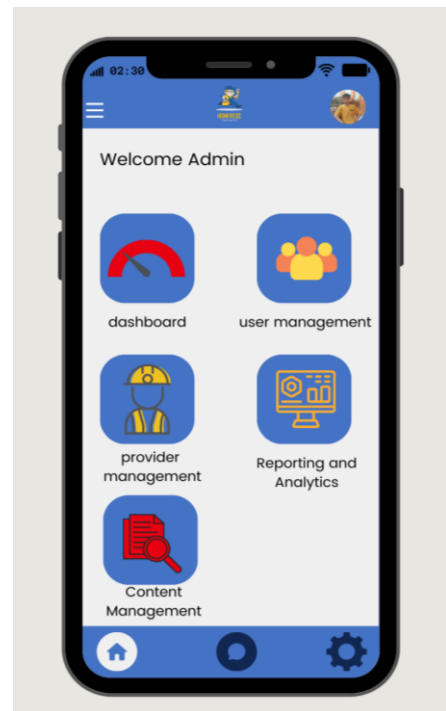


Fig. 24 Admin Page

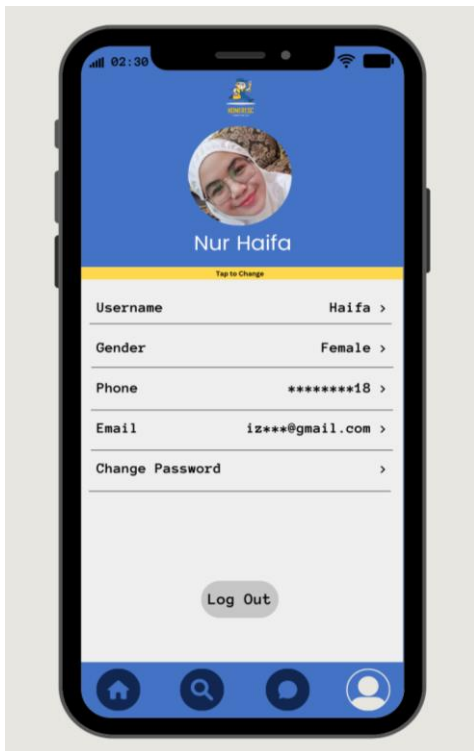


Fig. 23 Profile Page

The profile page (Fig. 23) will display the user's name, gender, email address, profile photo, and phone number. There will also be an option for the user to update their password. Users can exit the application by clicking the 'Logout' button.

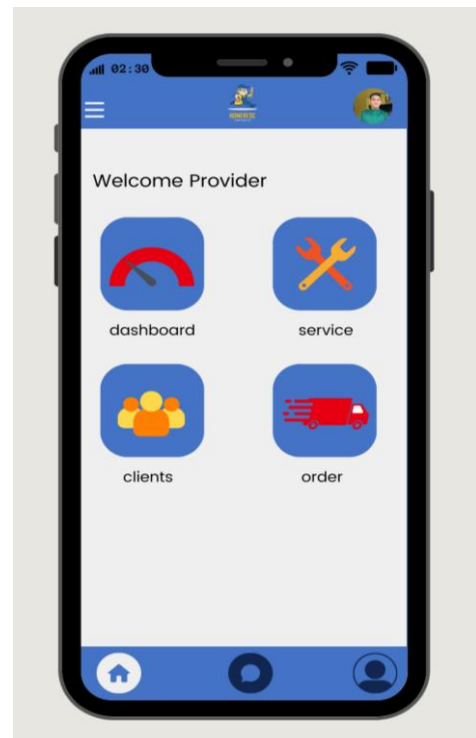


Fig. 25 Provider Page

The homepage for the provider (Fig. 25) will provide a rundown of the provider's activity, including the dashboard, services, clients, and orders.

VII. CONCLUSIONS

This research is a mobile application system that employs a booking system to schedule repairers who can solve clients' problems and apply security measures to secure user personal data and databases. This research aligns with the findings of [4] and [5], where the technology could enhance the safety and welfare of residential property owners.

This mobile application will include the login and sign-up functions necessary for users to use the system, which is the fundamental security of a system. The user can select the type of home services they require from the categories that will appear. The user's view will also show the date and time, allowing them to select precisely when they want the service provider to visit their homes. To ensure that users have a dependable and competent repairman who can satisfy their needs and preferences, users will be given precedence in choosing who will fix the damage at their home. Additionally, users can read reviews left by previous repairer clients before scheduling services.

However, this research will not include any discount coupons or vouchers. The service provider and the client will update the estimated arrival time and booking status throughout the system, disregarding any provider services or real-time location. Next, even if a third-party platform like FPX is mentioned as a payment option for online banking, there is an alternative that involves providing transaction receipts as proof instead.

This research aims to enhance accessibility to a wide range of home services for homeowners and renters. By providing a centralised platform, users can save time and effort by not having to look for and evaluate service providers separately. Additionally, it simplifies the process of choosing and employing home care workers. Renters and homeowners can look through verified profiles, read reviews, compare pricing, and assess the credentials of service providers to make the best selections based on open information. This project is significant because it addresses the pain points that renters and homeowners encounter when looking for and selecting home service providers. Also, it provides a solution that enhances the overall user experience with home services by boosting accessibility, trust, convenience, and cost-effectiveness.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper.

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