



# MOBILE APPLICATION FOR DOMESTIC SERVICES

Mrs. G. Aishwaryalakshmi, J. Arisudan, Aryan Kisan Tati, B. Meyanban

Lecturer, Student, Student, Student  
INFORMATION TECHNOLOGY

PSG POLYTECHNIC COLLEGE, COIMBATORE, INDIA

**Abstract:** In present scenario, people are buried up in a heavy work culture, as everyone is engaged with busy schedules, and hectic tasks which make them deviate from family life. If any issues encounter unexpectedly, it distracts them and makes them choose over the work they have to accomplish primarily. It is important to manage both professional and family life. In such circumstances, every one of us would have fantasized about a kind of house which doesn't have any leaks in pipes, if it doesn't have any mess in fixing a furniture and a kind of house which never face any maintenance issues and every one of us have thought that a life would be much better if no point of issue arises in getting a service at your door step and if there is no mess in bargaining a labour for home service. This Project proposes to implement a mobile application for consumers to avail of domestic maintenance services personnel such as plumbers and electricians. This application enables consumers to view the profile of the necessary domestic service providers to track and make an online payment after the service. This application also provides portal for the technicians to upload their profile to be utilized by the consumers online. In a world where skilled domestic service providers and clients seeking their services often struggle to find each other efficiently, Mobile Application for Domestic Services emerges as an application designed to bridge this gap. Mobile Application for Domestic Services revolutionizes the traditional approach to hiring domestic service providers, providing a seamless and user-friendly platform for both technicians and customers.

## I. INTRODUCTION

When someone need aid with small but major household tasks, the trouble arises when service skilled persons are unavailable or the trusted providers are impossible to find, who delivers consistently flawless service on instance. Our online system for household services provides the most expedient and annoys free way to get your domestic work done. We aim to help in providing optimal solutions to all your household troubles with more efficiency, ease and majorly, a delicate touch. A single click system describes booking highly skilled in-house professionals and gets your service done on time. Customers' overall willingness to pay is significantly and positively correlated with the expectation that fee-based services would be better, and with the belief that "pay for what you get" is the right thing to do. Keeping that in sense our proposed system is basically a marketplace for household services and it is the platform where the rates were standardized and there is no necessitate haggling over prices. Several aspects like painting, pest control, home cleaning, plumbing, electrical works and carpentry services are involved in a system to provide happy and healthy home atmosphere in order to satisfy consumers. In today's fast-paced and interconnected world, the way we access and engage with services has undergone a remarkable transformation. The emergence of online service booking has revolutionized how we schedule and receive various services, from medical appointments to salon visits, and from transportation to event reservations. This introduction sets the stage for understanding the significance of online service booking and the benefits it offers in our increasingly digital society.

## II. OVERVIEW AND ISSUES SOLVED

Overview sets the stage by addressing the prevalent issue of accessing skilled household services conveniently and reliably. It highlights the frustration that arises when service providers are unavailable or difficult to find, leading to delays in getting essential tasks done around the house. By introducing an online system for household services, your overview proposes a solution to this problem, emphasizing the goal of providing optimal solutions with efficiency and ease.

The concept of the online system is described as a marketplace for household services, where standardized rates are offered, eliminating the need for negotiation over prices. This approach aims to streamline the process for both consumers and service providers, ensuring a hassle-free experience for booking highly skilled professionals to complete household tasks on time. Furthermore, your overview acknowledges the importance of various household services such as painting, pest control, home cleaning, plumbing, electrical works, and carpentry services in creating a happy and healthy home atmosphere. By incorporating these services into the online platform, the system aims to satisfy consumer needs comprehensively. Transitioning to the digital age, the overview discusses the transformation of service booking from traditional methods involving phone calls and in-person appointments to the streamlined process offered by online platforms. This transformation is attributed to the digitalization of service booking, which has simplified the process, making it more convenient and efficient for both consumers and service providers. The advantages of online service booking are detailed in subsequent sections. Convenience and efficiency are highlighted as key benefits, as users can access a wide range of services with just a few clicks or taps on their devices. The accessibility and choice provided by online platforms democratize access to services, allowing users to explore multiple options and choose the best-suited providers. Moreover, the overview emphasizes the elimination of long wait times and queues, a common inconvenience associated with traditional booking methods. Online booking platforms provide real-time availability information, allowing users to secure appointments instantly, thus reducing frustration and wasted time. Additionally, online service booking platforms facilitate enhanced communication between consumers and service providers. Users receive confirmations, reminders, and notifications about their scheduled services, reducing the likelihood of missed appointments.

Finally, the economic efficiency of online service booking is highlighted, benefiting businesses by optimizing resource allocation and reducing the cost of managing appointments. Data-driven insights gathered from online platforms enable more targeted and effective marketing strategies, further enhancing economic efficiency.

## III. PROBLEM DEFINITION

**Problem:** Traditional methods of finding and hiring the technicians lack efficiency, transparency, and convenience. Customers struggle to locate reliable domestic maintenance, while plumbers and electricians face challenges in establishing their online presence and expanding their businesses. A solution is needed to connect customers with nearby domestic maintenance, improve communication, and streamline the process of finding and hiring them for various services. Mobile Application for Domestic Services aims to address these challenges by developing an Android application that provides a user-friendly platform for seamless communication and efficient service discovery, benefiting both consumers and domestic maintenance.

**Objective:** The Mobile Application for Domestic Services seeks to revolutionize the traditional methods of hiring technicians for domestic maintenance tasks by developing an Android application that provides a user-friendly platform for seamless communication and efficient service discovery. Addressing the challenges of inefficiency, lack of transparency, and inconvenience faced by both consumers and service providers, the app aims to empower users to easily access a wide range of services while enabling technicians to establish their online presence, manage their schedules, and grow their businesses effectively.

**Inefficiency and Lack of Transparency:** Traditional methods for finding and hiring technicians often lack efficiency and transparency, leading to frustration for both customers and service providers.

**Customer Struggles:** Customers face difficulties in locating reliable domestic maintenance services, while plumbers and electricians encounter obstacles in establishing their online presence and expanding their businesses.

**Purpose:** The Mobile Application for Domestic Services aims to address these challenges by developing an Android application that provides a user-friendly platform for seamless communication and efficient service discovery.

**Consumer Convenience:** Through the app, customers can easily browse and book a wide range of domestic maintenance services, enhancing convenience and accessibility.

**Service Provider Empowerment:** Service providers can showcase their skills, manage their schedules, and connect with potential clients, fostering business growth and expansion.

**Streamlining Domestic Maintenance:** Ultimately, the Mobile Application for Domestic Services seeks to streamline the process of hiring technicians for domestic tasks, enhancing efficiency, transparency, and convenience for all parties involved.

**Scope:** The scope of the Mobile Application for Domestic Services encompasses offering a diverse range of domestic maintenance categories, catering to various user demographics including homeowners, renters, and businesses, initially focusing on specific geographical areas while allowing for potential expansion. It includes the inclusion of individual technicians and professional service companies, multiple payment options, a feedback system for transparency, and compliance with legal regulations. Additionally, features such as real-time tracking, scheduling, and continuous improvement are integral parts of its scope to ensure efficient and user-friendly service delivery.

#### IV. PROPOSED SYSTEM

Enable seamless communication between consumers and technicians, allowing consumers to inquire about services and schedule appointments. Enhance transparency through a rating and review system, enabling consumers to provide feedback and ratings for the services they receive. Simplify service discovery for consumers by providing a comprehensive directory of nearby domestic maintenance, allowing them to search, filter, and compare based on specialties, ratings, and reviews. Support plumbers and electricians in expanding their businesses by helping them establish their online presence and reach a wider audience. Streamline operations through features such as scheduling systems and secure payment transactions. The front-end of Mobile Application for Domestic Services from the customer's perspective, the following information is typically available Registration and Login, Dashboard, Technicians Profiles, Search and Filtering, Reviews and Ratings, Messaging and Communication, Appointment Booking, Project Tracking and Payment Processing. In the front-end of Mobile Application for Domestic Services from the Technician's perspective, the following information and features are typically available Registration and Login, Dashboard, Profile Creation and Management, Project Listings and Invitations, Customer Profiles, Search and Filtering, Messaging and Communication, Appointment Management, Project Tracking, Reviews and Ratings and Payment Tracking.

#### How it Works:

**1. Seamless Communication:** The application facilitates easy communication between consumers and technicians, allowing consumers to inquire about services and schedule appointments directly through the platform.

**2. Consumer Inquiries:** Consumers can use the app to ask questions, seek clarification, and request quotes from plumbers, electricians, and other technicians, enhancing transparency and clarity in service inquiries.

**3. Appointment Scheduling:** The platform enables consumers to schedule appointments with technicians at their convenience, reducing the need for back-and-forth communication and streamlining the booking process.

**4. Business Expansion Support:** By providing technicians with a centralized platform to showcase their services and connect with potential clients, the app supports plumbers and electricians in expanding their businesses and reaching a broader customer base.

**5. Centralized Service Platform:** The application serves as a centralized hub for consumers to access a wide range of domestic maintenance services, simplifying the process of finding and hiring technicians for various tasks.

**6. Scheduling Systems:** Integrated scheduling systems allow users to book appointments for services such as plumbing repairs or electrical installations, ensuring efficient allocation of time for both consumers and technicians.

**7. Secure Payment Transactions:** The platform offers secure payment transactions, providing consumers with peace of mind and ensuring reliable transactions for services rendered by technicians.

**8. Streamlined Operations:** Through features like scheduling systems and secure payment transactions, the application streamlines operations for both consumers and technicians, enhancing efficiency and convenience in domestic maintenance service delivery.

### Benefits:

- 1. Convenience:** The application offers unparalleled convenience by allowing consumers to access a wide range of domestic maintenance services from the comfort of their own homes. They can easily schedule appointments and inquire about services without the need for time-consuming phone calls or emails.
- 2. Time-Saving:** With streamlined communication and appointment scheduling features, both consumers and technicians save valuable time that would otherwise be spent on back-and-forth discussions and scheduling arrangements.
- 3. Transparency:** The platform enhances transparency in service inquiries and bookings, providing consumers with clear information about services offered, pricing, and availability. This transparency builds trust and confidence in the service providers.
- 4. Business Growth:** For technicians such as plumbers and electricians, the application serves as a powerful tool for expanding their businesses. By gaining access to a broader customer base and showcasing their services effectively, technicians can grow their clientele and increase revenue.
- 5. Efficiency:** Integrated scheduling systems and secure payment transactions streamline operations for both consumers and technicians, leading to increased efficiency in service delivery and payment processing.
- 6. Access to Quality Services:** Consumers gain access to a network of skilled and verified technicians, ensuring that they receive high-quality services for their domestic maintenance needs.
- 7. Flexibility:** The application offers flexibility in scheduling appointments, allowing consumers to book services at their preferred date and time, based on their availability and convenience.
- 8. Peace of Mind:** With secure payment transactions and a feedback system in place, consumers can have peace of mind knowing that they are engaging with reputable service providers and that their transactions are secure and reliable.

## V. LITERATURE SURVEY

Vulnerability Testing in Online Shopping Android Applications address the increasing popularity of online shopping apps due to the rapid growth of the Android OS. They conduct an empirical study on several popular online shopping Android apps to identify seven vulnerabilities. Using quality tools, they analyze and document their findings, revealing that even widely-used apps like Amazon and eBay are not immune to vulnerabilities. By highlighting these issues and proposing possible measures to mitigate them, the authors aim to raise awareness among developers, ultimately benefiting potential users by improving the security of online shopping platforms.

Android Application for Car Wash Services emphasize the significance of mobile applications in reaching customers affordably in today's digital age. They introduce "We-cleanse," an Android application designed to rejuvenate vehicles through services like car wash and mechanical support. With diverse modules and specifications, the application aims to enhance and establish an online platform for car wash services, catering to the convenience and needs of modern consumers.

Digital Ticket Booking and Checking Using Aadhaar Card or Fingerprint and Android Application address shortcomings in the current ticket booking and checking systems, including issues like black marketing, paper ticket generation, and manual record maintenance. They propose a solution involving the integration of Aadhaar card numbers or fingerprints into the ticket booking process to mitigate these challenges. By developing an Android application, they aim to streamline ticket checking procedures for personnel while reducing paper waste associated with traditional ticketing methods. This solution offers potential benefits such as improved efficiency, enhanced security, and environmental sustainability in ticketing processes.

The working principle underlying these diverse mobile applications lies in leveraging the capabilities of the Android operating system to address specific needs and challenges faced by users in various domains. For instance, in the realm of online shopping security, vulnerability testing applications aim to identify and rectify vulnerabilities within popular online shopping platforms, thereby enhancing the overall security of transactions for users. Similarly, applications for car wash services capitalize on the widespread usage of mobile devices to provide convenient access to car maintenance services, catering to the modern consumer's need for on-demand services. The integration of Aadhaar card numbers or fingerprints in ticket booking applications streamlines the booking and checking processes, enhancing efficiency and reducing paper waste.

Mobile applications for productive families enable the promotion and marketing of family-made products, contributing to economic empowerment and sustainability. Lastly, smart applications for grocery shopping aim to address common challenges faced by consumers, such as disorganization and pricing inconsistencies, by providing real-time solutions directly on users' smartphones, thereby revolutionizing the grocery shopping experience. In essence, these applications harness the power of mobile technology to address specific needs, streamline processes, and enhance user experiences across different domains.

## **VI. SYSTEM SPECIFICATION AND IMPLEMENTATION:**

The hardware specifications required for the implementation of the multi-service booking system include a processor of i3 or above, with a minimum of 4 GB of RAM and a hard disk capacity of at least 160 GB. These specifications ensure optimal performance and sufficient storage capacity to support the system's operations and data storage requirements.

On the software side, the system is developed using a combination of programming languages and toolkits. The primary languages utilized include Java, Kotlin, HTML, CSS, JavaScript, and PHP, which are essential for both the frontend and backend development of the system. Additionally, various toolkits such as Android SDK Manager, Web Services, Razor Pay, and React.js are employed to facilitate development and integration of essential features and functionalities.

The Integrated Development Environment (IDE) utilized for system development is primarily Android Studio, which provides a comprehensive environment for building Android applications. Additionally, XAMPP is used as a local server solution for testing and development purposes. The system's database is managed using MySQL 5.0, with PhpMyAdmin serving as the graphical interface for managing MySQL databases. These software specifications ensure compatibility, efficiency, and robustness in the development and deployment of the multi-service booking system.

Android runs on Linux with libraries and libraries written in C. Dan Morrill, Android Engineer in Google, explained that Android is not a specification, or a distribution in the traditional Linux sense. It's not a collection of replaceable components. Android is a chunk of software that you port to a device. Android uses the Dalvik Virtual Machine to run Dalvik Executable code translated from Java bytecode. All standard APIs are defined in terms of classes, interfaces, methods and objects. In terms of hardware platform, ARM architecture is main platform for Android. However, there is also support for x86 architecture.

The development stack for this project encompasses a versatile array of programming languages and tools. Java and Kotlin are employed for Android application development, ensuring compatibility and robust functionality for mobile devices. HTML, CSS, and JavaScript are utilized for crafting the web interface, providing a dynamic and responsive user experience. PHP serves as the backend scripting language, facilitating seamless communication between the frontend and the MySQL 5.0 database, managed through PhpMyAdmin. The Android Studio IDE streamlines Android application development, while Xampp acts as a comprehensive toolkit for running a local server environment, enhancing the testing and deployment process.

The integration of these technologies forms a cohesive and powerful development environment. Android SDK Manager and web services contribute to the efficiency of the application, enabling a seamless connection between the mobile application and the backend server. This robust technology stack ensures a well-rounded approach to application development, encompassing both the frontend and backend components for a comprehensive and user-friendly experience.

## **VII. IMPLEMENTATION:**

The various things can be made simple and user-friendly. By increasing some of the coding we can improve its functionality. The online payment system is yet not ingrate into the system which can be featured shortly. Till now it does not have the facility to back up the database. As the next advancement, we can make it able to bundle the backup facility so that one can perform operations based on previous records. As the technology emerges, it is possible to upgrade the system and can be adaptable to the desired environment. Based on future security issues, security can be improved using emerging technologies.

## VIII. TESTING:

Testing is the most important phase in the software development activity. In software development life cycle (SDLC), the main aim of the testing process is the quality the developed software is tested against attaining the required functionality and performance. During the testing process the software is worked with some particular test case and the output of the test cases are analysed whether the software is working according to the expectations or not. The success of the testing process in determining the error is mostly depends upon the test case criteria, for testing any software we need to have a description of the expected behaviour of the system and method of determining whether the observed behaviour confirmed to the expected behaviour. Requirement testing is one of the kinds where testing is done before the commencement of the project. Before commencing the project, requirements listed out by the client are checked for its feasibility.

### **SYSTEM TESTING:**

In the context of the Mobile Application for Domestic Service described earlier, System Testing involves a comprehensive evaluation of the entire software system. This phase ensures that functionalities, such as the Booking Page, User's Info Page, Domestic Servicer's Details Page, and associated modules, perform seamlessly in conjunction with each other. Functional Testing verifies the accuracy of service selections and user data presentation, while Performance Testing assesses the platform's responsiveness and scalability. Security Testing ensures the protection of sensitive user information. Usability Testing focuses on the user interface's intuitiveness, and Compatibility Testing verifies consistent performance across various devices. Reliability and Integration Testing guarantee the system's stable operation, and Regression Testing confirms that new features do not disrupt existing functionality. System Testing is integral to ensuring the Home Service Platform's overall functionality, security, and user experience meet specified requirements before deployment.

### **BLACK BOX TESTING:**

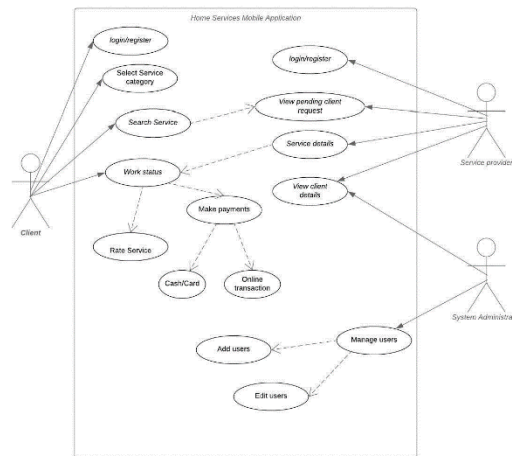
In Black Box Testing for the Mobile Application for Domestic Service, the assessment begins with the Index Page, ensuring that users can access comprehensive information about provided services and navigate through various categories seamlessly. The functionality of the login module is verified, emphasizing that customers and domestic service providers can securely log in to their accounts. Moving to the Domestic Servicer Description Page, Black Box Testing validates the accuracy of displayed information, including the servicer's name, description, specifications, location, and image. The effectiveness of the Call for Enquiry and Service Booking Modules is tested to guarantee that users can interact with service providers effortlessly.

The testing process extends to the Vendor Profile Update feature, confirming that vendors can easily and accurately update their details. The verification of sensitive information, such as Aadhar Number and vendor resumes, is crucial to ensure eligibility checks for service providers. Additionally, the location update feature is tested to confirm that vendors can efficiently provide their shop location or service area, facilitating optimal connections with nearby customers. Black Box Testing across these components focuses on delivering a user-friendly and reliable platform for seamless interactions between customers and service providers

## IX. PROPOSED SYSTEM DESIGN:

### USE CASE DIAGRAM:

The use case diagram provides a high-level overview of the Mobile Application For Domestic Services highlighting its core functionalities and the interactions between the application and its users. It illustrates the user registration process, service search and selection, payment processing, service rating, and user management by the system administrator.

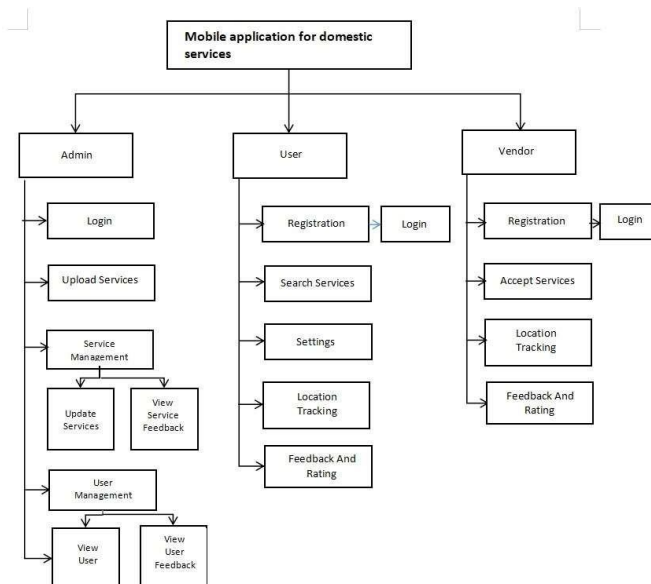


**Fig 1. Use Case diagram**

In this Fig 1, The Use Case Diagram delineates the interactions between the Mobile Application for Domestic Services and its users, comprising clients and the system administrator. Clients engage in various actions such as registering, logging in, selecting service categories, searching for specific services, accessing service details and their own profile information, initiating payments, and providing service ratings. Meanwhile, the system administrator exercises control by managing user profiles, entailing tasks like adding and editing user information. This graphical representation succinctly illustrates the system's functionalities and the roles played by both clients and administrators, offering a comprehensive overview of the interactions within the Mobile Application for Domestic Services.

### DATA FLOW DIAGRAM:

The Data Flow Diagram (DFD) illustrates the flow of data through the home services mobile application, providing a comprehensive overview of the system's functionality. The high-level Level 0 DFD outlines the main inputs (user registration data and service listing data) and outputs (service bookings and service ratings). The detailed Level 1 DFD delves into the specific processes involved, including user management, service management, booking management, and rating management, and showcases the interactions between these processes and external systems like the payment processing system. The DFD serves as a valuable tool for understanding the system's architecture and identifying areas for potential optimization. providing a visual guide to the application's functionality and data movement.



**Fig 2 Data Flow Diagram**

In Fig 2 represents how the customer engages with the home service application, and in turn how the applications forward the request to the service provider and facilitates service. The Data Flow Diagram illustrates the flow of information within the Mobile Application for Domestic Services, depicting how data moves between different modules. It visually represents the interaction among modules such as the User Module, Booking Module, Payment Details Page, Service Request Module, and others. The diagram showcases the flow of data, inputs, and outputs across these modules, elucidating the interconnections and data exchange processes within the mobile application. This comprehensive representation aids in understanding the system's structure and the interaction between various components.

#### **DATABASE DESIGN:**

Database design is the process of producing a detailed data model of a database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data. In the relational model these are the tables and views. In an object database the entities and relationships map directly to object classes and named relationships. However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall database application within the database management system (DBMS). The process of doing database design generally consists of several steps which will be carried out by the database designer. Usually, the designer must: Determine the data to be stored in the database, determine the relationships between the different data elements. Superimpose a logical structure upon the data based on these relationship

#### **REGISTRATION MODULE:**

Customers who want to avail our services are invited to register for a free account in our portal with few simple steps, by providing valid credentials a customer is requested to confirm account creation. Once they are done with registration, a confirmation mail about a new account with verification link is directed to the Email-id provided. Now a customer is free to use our services when they are done with account verification.

#### **SERVICE MODULE:**

When customers want to schedule a service, they can do it by logging in to their account. The portal is specialized with an interactive user interface which provides attractive way of booking a service, where customers are requested to provide the details about the services required. If required customers are asked to upload the pictures of their particulars, if they are confused with any of the services. When done, the request is submitted and it is directed to payment page for the payments to be done.



## **PAYMENT MODULE:**

Further process is preceded to the next module where the customer needs to pay for the services opted. It is done through an external payment gateway called Razor Payment Gateway which guarantees a secure and safe transaction. Once the payment is done, a confirmation acknowledgement is forwarded to the user about all the details of services opted and an onsite confirmation is displayed on the website. When the service is booked and confirmed, service men from our organization will reach you to deliver the service. The idea proposed in this paper is one among the new innovations where it reduces the trouble for customers to search for the labours and avoids form bargaining to get the profitable services to be done. Once the service is completed our customers are requested to rate the overall service done by our professionals and asked for any valuable feedback or improvements to be done in providing a better service. If the customers are unsatisfied with the service provided then with some valid reasons a return policy is approved, or a re-service may be done to make you feel convenient with our service.

The Proposed system involves three actors which include an Admin, Service provider, and a customer. Admin has the beginner rights to access and modify the website where he/she needs to login to do so. Then next to admin comes the customer who wants avail our services should precede with the registration and login process. If required a customer can upload a file that describes about the services. Once the request has been done then he can forward it to payment process and to confirm service after the service has been done a customer can rate the service. And in worst case if the customer is not satisfied with the service, they can move with the return policy process. At last, a service provider who is the one who provides a service, where they should also go with the registration and login process and they should proceed with files uploaded and once the service is confirmed they are intimated to provide the service and when done after service if the customer is unsatisfied with it based on the customers review if required, they should provide the re-service.

## **MODULES FOR THE HOME SERVICE:**

**User Module:** In this module, users can register themselves by logging in with their username and password. Users can reset their password if they forget their username or password. The User Module of our Home Service Platform offers a user-friendly interface for individuals seeking home services. Users can effortlessly navigate the Index Page to explore diverse service categories, and the secure login module ensures a personalized experience for both customers and domestic service providers. On the Domestic Services Description Page, users can access detailed profiles, including names, descriptions, specifications, locations, and images. Integrated features like the Call for Enquiry and Service Booking modules facilitate seamless communication with service providers and efficient scheduling. The Vendor Profile Update feature ensures users have access to current information, contributing to a comprehensive and user-centric home service platform.

**Registration Module:** This module includes the user registering in our portal by submitting details like name, contact number, Email ID, date of birth, address, city, country, zip code, etc. The Registration Module of our Home Service Platform simplifies the onboarding process for users and service providers. It provides a user-friendly interface where individuals can sign up by entering essential details, facilitating a smooth and secure registration experience. For service providers, additional information such as Aadhar Number and resumes may be collected to ensure eligibility. The Registration Module streamlines the creation of accounts, fostering a seamless connection between users and service providers within our platform.

**Login Module:** In this module, users can enter their email and password for logging into the user dashboard. The Login Module in our Home Service Platform offers a secure and efficient gateway for users and service providers to access their accounts. With a user-friendly interface, individuals can log in by providing their credentials, ensuring a personalized and secure experience. This module enhances platform usability, enabling seamless navigation to personalized features such as service history, preferences, and communication tools, fostering a convenient and tailored interaction within our home service ecosystem.

**Service request module:** in this module user can submit the request for the service needed. The admin will assign the date and will get a receipt that the user can print out. The Service Request Module on our Home Service Platform empowers users to efficiently request and schedule services. Through a straightforward interface, customers can submit their service requirements, specifying details such as service type, preferred date, and additional notes. This module streamlines the communication between users and service providers, ensuring a prompt and tailored response. Service providers receive detailed requests, enabling them to understand customer needs and efficiently manage their service appointments. The Service Request Module enhances the overall user experience, facilitating a seamless and transparent process for requesting and coordinating home services.

**Service Status:** In this module, include the user can check the status of service request filling by request ID. (ID will provide during the request sent by the user). The Service Status Module within our Home Service Platform keeps users informed about the real-time progress of their requested services. Users can easily track the status of their service requests, from confirmation to completion, through a user-friendly interface. This module provides transparent updates on service provider assignments, estimated arrival times, and job completion, enhancing user satisfaction by offering visibility and clarity throughout the service delivery process. With the Service Status Module, users can stay informed and confident about the status of their home service requests at every stage.

**Booking history module:** This module helps the user to view the history of the service price, name of the technician assigned for service, date of work assigned, etc. The Booking History Module in our Home Service Platform serves as a comprehensive record of users' past service engagements. It provides users with easy access to details such as service dates, service providers, and service types through a user-friendly interface. This module enhances user convenience by offering a transparent and organized overview of their historical bookings, enabling them to track and manage their past home service interactions efficiently. Users can refer to the Booking History Module to review, evaluate, and plan future service requests based on their prior experiences, contributing to a seamless and informed user journey within our platform.

**Change Password:** In this user can change the password which includes email-Id and change the password in the user dashboard. The Change Password feature in the User Dashboard allows users to securely update their passwords by entering their email-ID and choosing a new password. This user-friendly module enhances account security and ensures a seamless experience for individuals using our platform. Users can easily navigate to the Change Password section within their dashboard, providing a straightforward and efficient means to enhance the security of their accounts.

**Feedback and Review Module:** The user can send the feedback by filling in the information provided in the form. Admin can review sent by the customer. The Feedback and Review Module in our Home Service Platform facilitates transparent communication and user-driven quality assurance. After service completion, users can provide valuable feedback and reviews on their experiences with service providers through an intuitive interface. This module encourages a two-way communication channel, allowing users to share their satisfaction or concerns, and service providers to address and improve based on user input. The collective feedback contributes to a dynamic and evolving ecosystem, enhancing the overall service quality and fostering trust between users and service providers within our platform.

**Admin Module:** This module is for administrators where the admin can do all the settings of the website. Admin can add service details, can view booking details, add several technicians, etc. The Admin Module of our Home Service Platform empowers administrators with comprehensive control and oversight. Through this module, administrators can efficiently manage and customize various platform settings, ensuring its smooth operation. Admins have the ability to update service details, view booking information, and add multiple technicians. Additionally, the module enables admins to monitor the historical aspects of service provision, such as tracking service prices, assigned technicians, and work dates. This centralized control hub ensures that the platform operates seamlessly, promoting effective decision-making, quality assurance, and continuous improvement.

**Work Module:** In this admin can view all the assigned requests made by the users. Admin can view or delete the work as per their need. Admin can assign the name of the technician, services price as per the services, and assign the date. The Work Module in our Admin Dashboard provides a comprehensive overview of all user-assigned service requests, offering admins the ability to efficiently manage and organize tasks. Admins can effortlessly view and delete assigned work requests based on priority and need. Additionally, the module enables admins to assign specific technicians to tasks, set service prices, and schedule dates for seamless coordination. This feature streamlines the workflow, allowing administrators to exercise control over task assignments, ensuring optimal service delivery, and maintaining the platform's operational efficiency.

**Technician Module:** In this module, the admin can add, modify and delete. Technician of the service center. The Technician Module within our Admin Dashboard empowers administrators to seamlessly manage the workforce of the service center. Admins can efficiently add, modify, or delete technicians as needed. This module provides a centralized platform for overseeing technician details, ensuring that the service center's workforce is up-to-date and aligned with operational requirements. The streamlined functionalities of adding, modifying, and deleting technicians contribute to the efficient administration of the service center, optimizing workforce management within the platform.

**Logout:** In this user can log out and exit the application. The Logout feature in our application provides users with a straightforward mechanism to securely log out and exit the platform. This user-friendly functionality ensures that users can terminate their sessions with ease, promoting account security and privacy. By selecting

The Logout option, users conclude their active sessions, enhancing the overall user experience and reinforcing the importance of data security within our application.

**Payment gateway:** Razorpay stands as a prominent payment gateway solution, facilitating smooth online payment acceptance for businesses of varying scales. Offering an array of payment options encompassing credit/debit cards, net banking, UPI, wallets, and international payment methods, Razorpay caters to diverse customer preferences. A notable advantage lies in its straightforward integration through APIs, SDKs, and plugins for major e-commerce platforms, easing the setup process for businesses seeking to enable online payments.

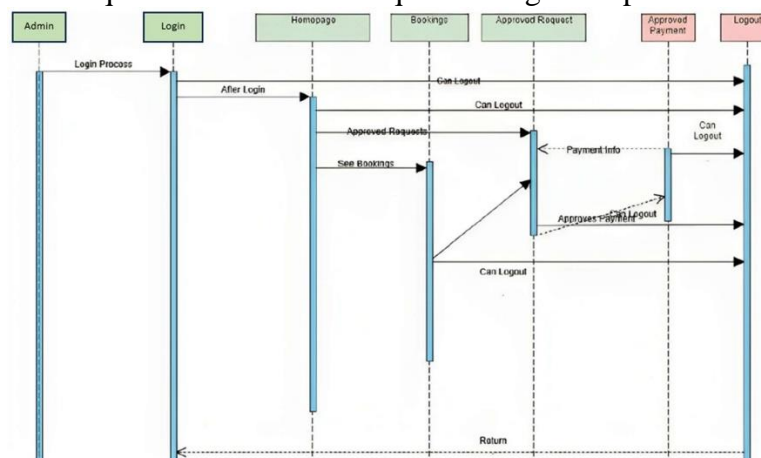
The platform prioritizes robust security measures, ensuring compliance with industry standards like PCI DSS and implementing advanced encryption techniques to safeguard transactions. Additionally, Razorpay provides insightful analytics tools empowering businesses to monitor transaction data and customer behavior, enabling informed decision-making. Recognized for its user-friendly interface, wide-ranging payment options, security protocols, and analytical capabilities, Razorpay remains a popular choice among businesses seeking reliable and customizable payment processing solutions.

**Database attributes:** The utilized database on this page comprises a multifaceted collection of attributes vital for ensuring the platform's smooth operation. It encompasses a diverse array of datasets, including booking history, categories associated with domestic service providers, user authentication details for login, user location specifics, comprehensive user profiles, vendor-specific information, geographical data concerning vendor locations, and pertinent payment-related details. This amalgamation of datasets plays a pivotal role in facilitating various functionalities within the platform, encompassing user engagement records, service categories management, secure user authentication, geographical mapping, and transactional information. The comprehensive nature of this database establishes a robust groundwork essential for delivering extensive functionalities and seamless service provisions within the platform.

This comprehensive database serves as the backbone of the platform, comprising an extensive array of datasets essential for its smooth functioning. It incorporates critical information such as booking histories, categories relevant to domestic service providers, user authentication credentials, detailed user location data, comprehensive user profiles, specific vendor details, geographical vendor information, and payment-related data. The integration of these datasets plays a crucial role in enabling multiple platform functionalities, encompassing user engagement tracking, efficient management of service categories, secure user authentication processes, geographical mapping services, and transactional records. This intricate database infrastructure forms a fundamental framework, ensuring the platform's robust functionality and its ability to seamlessly deliver diverse services within its ecosystem.

### ADMIN SEQUENCE DIAGRAM

An Admin Sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. It is a construct of a message sequence chart. An Admin sequence diagram shows object interactions arranged in time sequences. The below sequence diagram represents the sequence of action.



**Fig 3. Admin Sequence Diagram**

In this Fig 3, The sequence diagram shows the interaction between the client, admin, and system components of a home services mobile application. The client initiates the process by logging in to the application. The system authenticates the client and returns a login token. The client then uses the login token to request a list of service categories from the system. The system returns a list of service categories to the client. The client selects a service category and requests a list of services within that category from the system. The system returns a list of services to the client. The client selects a service and requests more information about the

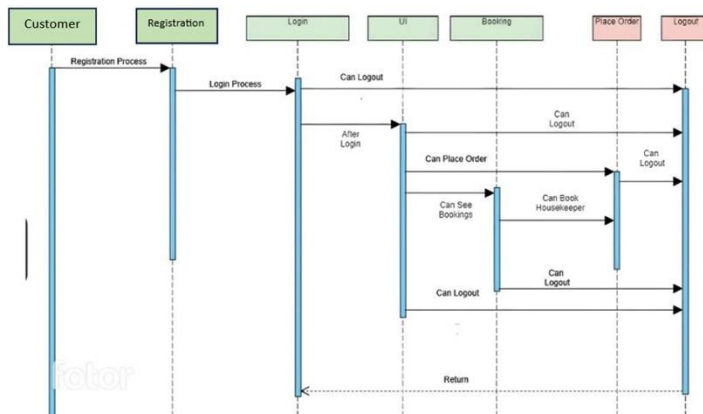
service from the system. The system returns detailed information about the service to the client. The client decides to book the service and submits a booking request to the system. The system validates the booking request and sends a booking confirmation to the client. The client pays for the service using the application. The system processes the payment and sends a payment confirmation to the client. The client receives the service and rates the service using the application. The system stores the service rating.

**CUSTOMER SEQUENCE DIAGRAM**

A Customer Sequence diagram is an interaction diagram depicting the chronological order and interactions between objects. It illustrates how different objects collaborate and communicate with each other over time. It is a graphical representation that portrays the sequence of actions and the exchange of messages among objects within the system. The provided sequence diagram visually displays the sequence of events or actions as they occur during interactions between various system objects.

**Fig 4. Customer Sequence Diagram**

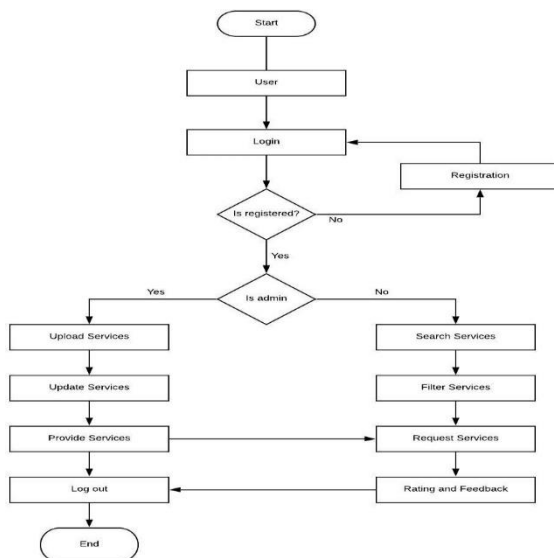
In Fig 4, The sequence diagram you sent shows the customer registration process for a Mobile Application



for Domestic Services. The customer initiates the process by opening the application and selecting the "Register" button. The system then displays a registration form to the customer. The customer enters their name, email address, and password into the registration form and submits the form. The system validates the registration data and creates a new user account for the customer. The system then sends a confirmation email to the customer's email address. The customer clicks on the confirmation link in the email to activate their account. Once the customer's account is activated, they can log in to the application and start using the home services

**CONTROL FLOW DIAGRAM:**

The Control Flow Diagram provides a visual representation of the sequential steps involved when a user interacts with a web server to access resources. It begins with the user initiating a request, which the web server receives and dissects into its components. The server then endeavors to match this request to an existing resource within its configuration. If a match is found, the server serves the resource to the user; otherwise, an error message is returned. While the diagram offers a structured overview of this process, it does not encompass all potential paths, such as authentication procedures or additional request processing, providing a foundational understanding of the web server's fundamental actions in response to user requests.

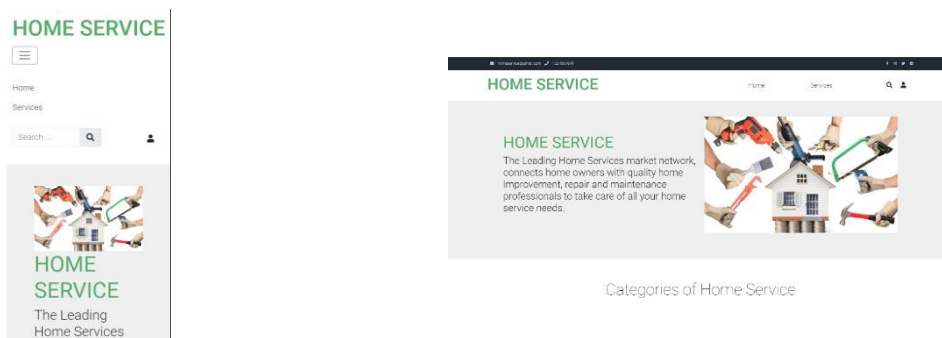


**Fig 5. Control Flow Diagram**

In this Fig 5 The control flow diagram depicted outlines the sequential process involving a web server in delivering services to users. It commences with a user initiating a request directed at the web server, commonly through a web browser or another client application, indicating the desired resource via a URL. Upon receipt, the web server parses the request, dissecting it into its distinct elements—such as the HTTP method, request headers, and body. Subsequently, the server endeavors to match the request to an available resource within its configuration. If a matching resource is found, the web server furnishes the requested resource to the user; otherwise, an error message, usually encompassing a status code and error details, is returned to the user. Notably, the diagram presents a high-level depiction, omitting potential alternate pathways that could involve authentication processes or additional request processing before resource delivery. Despite this, it offers a comprehensive insight into the fundamental steps undertaken by a web server in managing user requests and delivering resources.

**X. OUTPUT:**

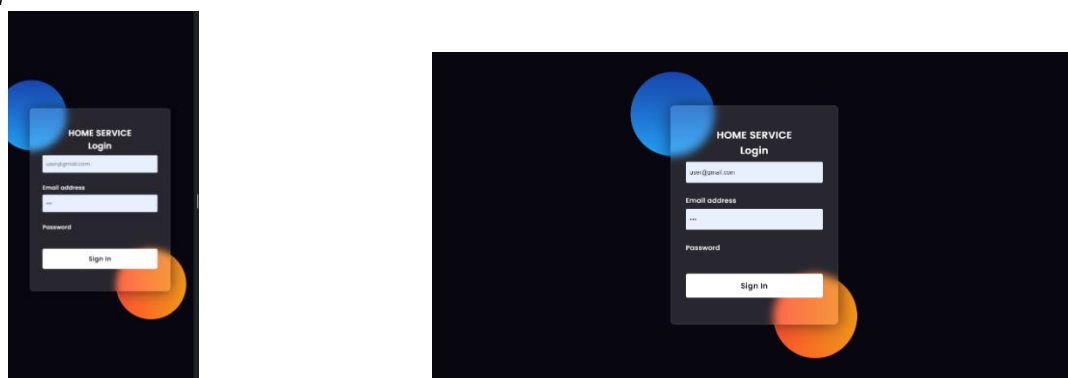
**HOME PAGE**



**Fig 6. Home Page**

In this Fig 6, The Home Service Platform's index page serves as an information hub, offering a comprehensive overview of the diverse services provided. Users, both customers, and domestic service providers, can access a wealth of details, including a wide array of service categories. To personalize their experience, a user-friendly login module is available, enabling seamless access to individual accounts. This ensures that both customers and service providers can easily navigate the platform, accessing relevant information and functionalities tailored to their specific needs.

**LOGIN PAGE**



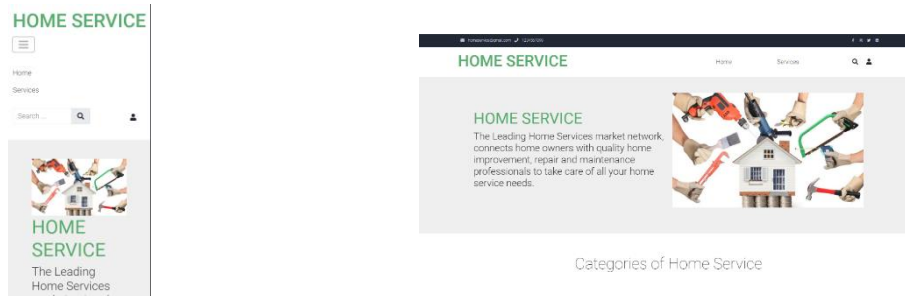
**Fig 7 Login Page**

In this Fig 7, This Login Page includes the user registering in our portal by using Sign Up option and submitting details like name, contact number, Email ID, date of birth, address, city, country, zip code, etc. Users can enter their email and password in the Sign In option for logging into the user dashboard. In this user can change the password which includes email-Id and change the password in the user dashboard. The

Domestic Servicer can also create an account using the business Sign Up option in which various details are given to Sign in and Email id, password is given to the Domestic Servicer.

## USER'S VIEW

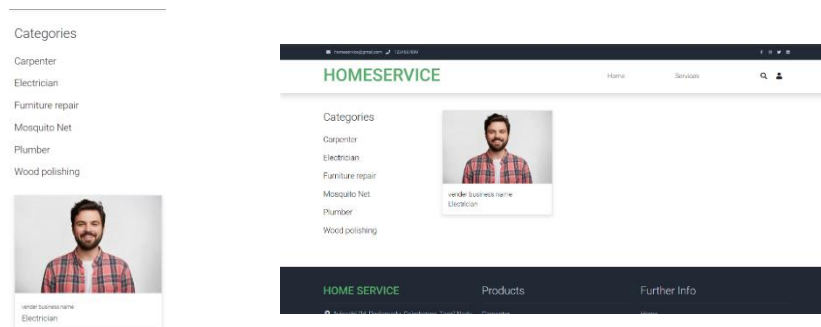
### INDEX PAGE



**Fig 8 Index Page**

In this Fig 8, Users can register themselves by logging in with their username and password. Users can reset their password if they forget their username or password. In this user can change the password which includes email-Id and change the password in the user dashboard. They can access their bookings and booking history and also can see the information that the Home Service page provide.

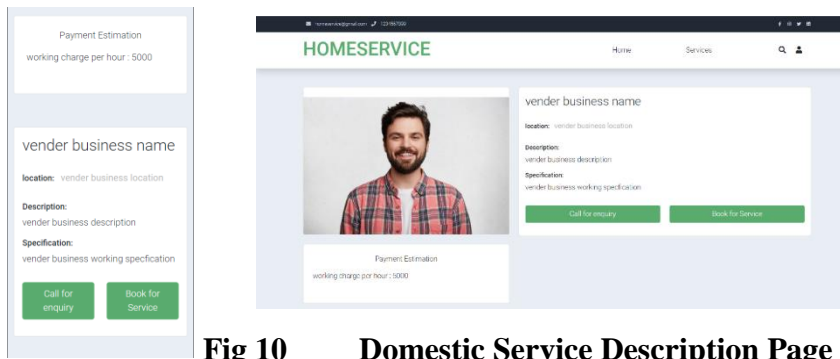
### DOMESTIC SERVICE PAGE



**Fig 9 Domestic Service Page**

In this Fig 9, Home Services platform offers a diverse array of categories to cater to your household needs. Users can easily navigate and select specific service categories tailored to their requirements. Once a category is chosen, users have the flexibility to handpick vendors that align with their preferences and needs. A seamless transition to the next page allows users to delve into comprehensive descriptions of domestic service providers, offering detailed insights into their expertise and offerings. This user-friendly journey ensures a tailored and informed selection process for a hassle-free home service experience.

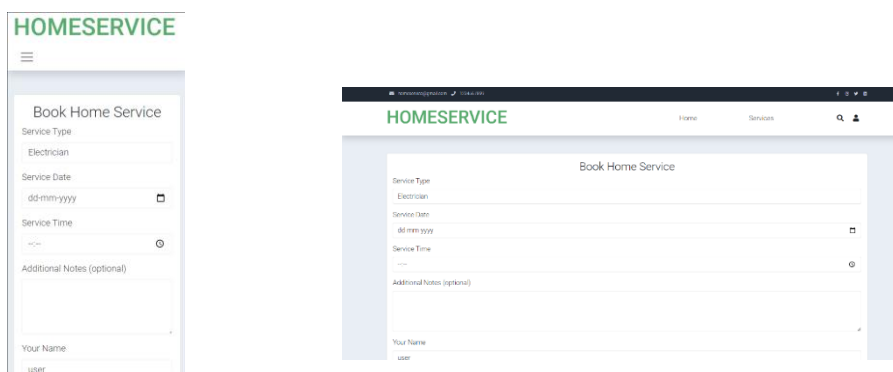
## DOMESTIC SERVICE DESCRIPTION PAGE



**Fig 10 Domestic Service Description Page**

In this Fig 10, The Domestic Servicer Description Page is a comprehensive source of information, offering details such as the servicer's name, description, specifications, location, and an image for a complete profile view. Two essential modules, the Call for Enquiry and Service Booking, enhance user interaction. The Call for Enquiry module facilitates direct communication, allowing users to seek additional information or clarification. Simultaneously, the Service Booking Module streamlines the process of scheduling services, providing users with a convenient way to secure appointments. This integrated approach ensures a seamless and efficient experience for users engaging with domestic service providers on the platform.

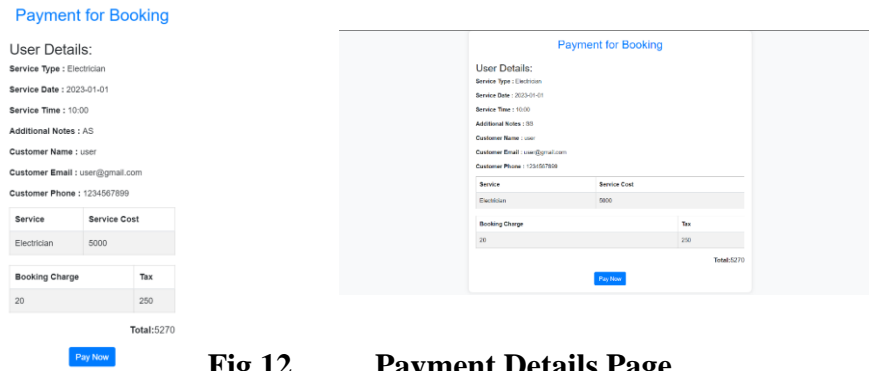
## BOOKING PAGE



**Fig 11 Booking Page**

In this Fig 11, The Booking Page serves as a central hub for users to customize and finalize their service requests. It allows users to select the specific service type they require, set the preferred service date and time, provide additional notes for the service provider to ensure specific requirements are met, and input their location details for optimal service coordination. This user-friendly interface streamlines the booking process, enabling users to tailor their requests effectively and communicate pertinent details to the service provider, ensuring a seamless and personalized experience within our platform.

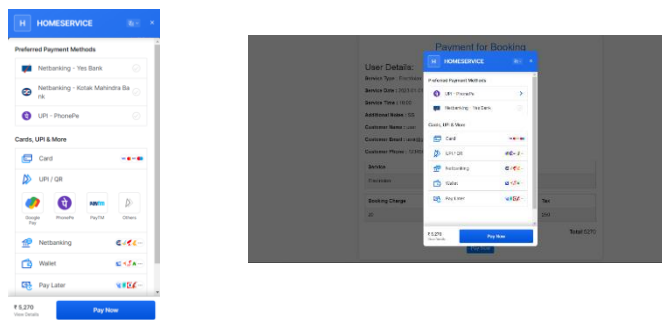
### PAYMENT DETAILS PAGE



**Fig 12 Payment Details Page**

In this Fig 12, The Payment Details Page serves as a final checkpoint for users, offering a comprehensive overview of their chosen service details. Users can review essential information, including the selected Domestic Servicer, Service Date and Time, Service Cost, and any incurred Extra Charges. This page acts as a crucial step in the booking process, ensuring users have a clear and accurate summary of their service request before proceeding with payment, enhancing transparency and providing a last-minute confirmation of their chosen service parameters.

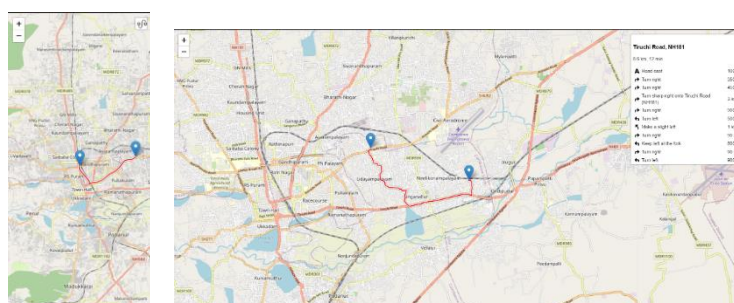
### PAYMENT GATEWAY PAGE



**Fig 13 Payment Gateway Page**

In this Fig 13, the customer needs to pay for the services opted. It is done through an external payment gateway called Razor Pay which guarantees a secure and safe transaction. Once the payment is done, a confirmation acknowledgement is forwarded to the user about all the details of services opted and an onsite confirmation is displayed on the website. When the service is booked and confirmed, service men from our organization will reach you to deliver the service. The idea proposed in this paper is one among the new innovations where it reduces the trouble for customers to search for the labours and avoids form bargaining to get the profitable services to be done.

### LOCATION TRACKING PAGE



**Fig 14 Location Tracking Page**



In this Fig 14, Home Services platform features a location tracking module to enhance user convenience. This tool utilizes real-time location data, ensuring that users are presented with relevant service categories and vendors based on their geographical position. This not only streamlines the vendor selection process but also facilitates efficient scheduling and appointment management. Our commitment to user-centric design includes this feature to provide a personalized and responsive experience, connecting users with local service providers for a seamless and timely home service solution.

### ADMIN’S VIEW

### DASHBOARD PAGE

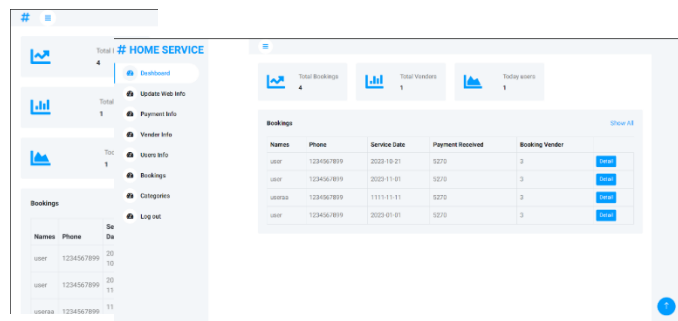


Fig 15 Dashboard Page

In this Fig 15, website's admin panel provides a centralized hub for comprehensive control, allowing administrators to effortlessly manage various settings. The admin can add and update service details, view booking information, and oversee multiple technicians. Additionally, historical data on service prices, assigned technicians, and work dates offers valuable insights, aiding in decision-making and quality control. This robust administrative functionality ensures the smooth operation and continuous improvement of our home services platform.

### PAYMENT DETAILS PAGE

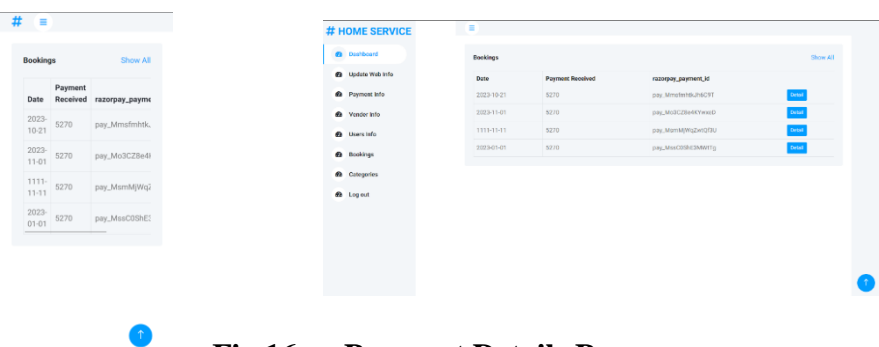
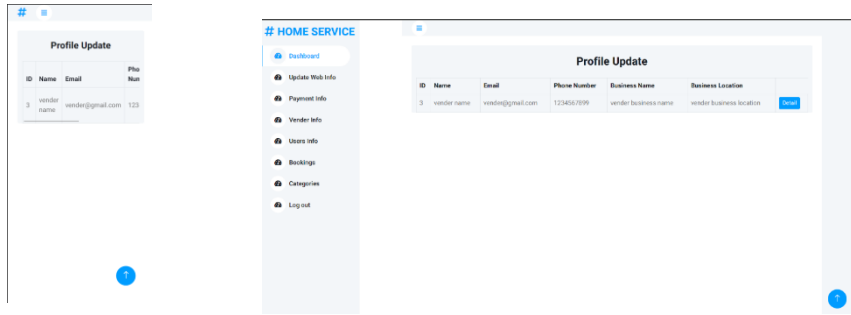


Fig 16 Payment Details Page

In this Fig 16, The Payment details Page provides a thorough summary of the service specifics they have selected. The admin has access to important data, such as the chosen domestic servicer, the service day and time, the service cost, and any additional charges that may have been paid. This page is an essential part of the booking process because it makes sure consumers receive a concise and accurate description of the services they have requested before paying for them. It also increases transparency by giving users a last-minute confirmation of the service parameters they have selected.

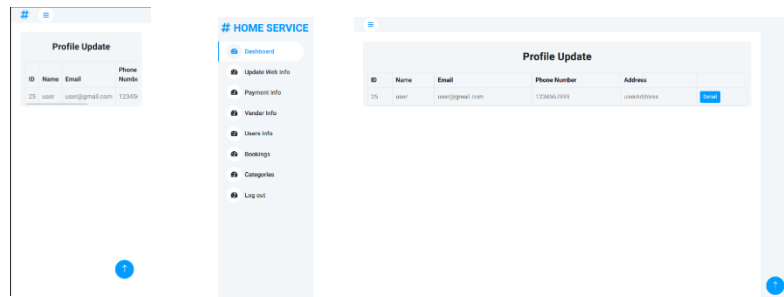
## DOMESTIC SERVICER'S DETAILS PAGE



**Fig 17 Domestic Servicer's Details Page**

In this Fig 17, The Domestic Servicer's Details Page offers a comprehensive overview of the service details associated with the selected domestic servicer. Admin access includes crucial information like the chosen service provider, service date and time, service costs, and any additional charges. Integral to the booking process, this page ensures users receive a clear and precise summary of their requested services before proceeding with payment, enhancing transparency and providing users with a final confirmation of their selected service parameters.

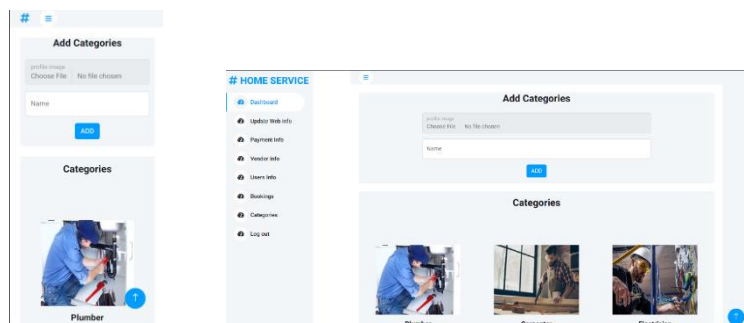
## USER'S INFO PAGE



**Fig 18 User's Info Page**

In this Fig 18, The User's Info Page serves as a comprehensive repository of crucial user information, accessible to the admin. This includes details such as the selected user's name, address, location, email ID, phone number, chosen domestic servicer, service date and time, service cost, and any additional charges. Integral to the booking process, this page ensures that users receive a concise and accurate summary of their requested services before proceeding with payment, fostering transparency and providing a final confirmation of the selected service parameters. It plays a pivotal role in enhancing user confidence and satisfaction by offering a comprehensive overview of the crucial details associated with their service request.

## CATEGORIES PAGE



**Fig 19 Categories Page**

In this Fig 19, Home Services platform offers a diverse array of categories to cater to your household needs. Admin can easily add and delete specific service categories tailored to their requirements. Once a category is chosen, users have the flexibility to handpick vendors that align with their preferences and needs. A seamless transition to the next page allows users to delve into comprehensive descriptions of domestic service providers, offering detailed insights into their expertise and offerings. This user-friendly journey ensures a tailored and informed selection process for a hassle-free home service experience

### DOMESTIC SERVICER'S VIEW DASHBOARD PAGE

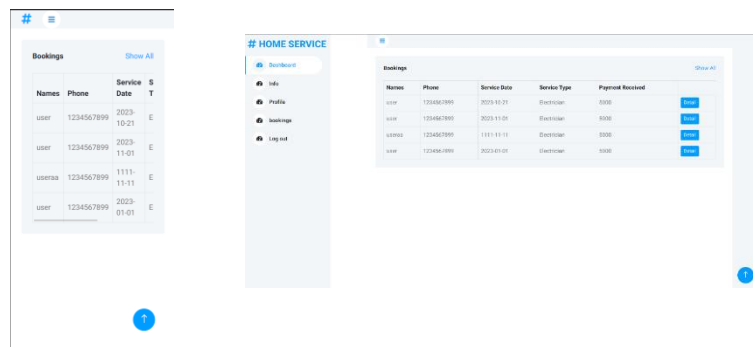


Fig 20 Dashboard Page

In this Fig 20, The Vendors panel on the website offers a consolidated portal for all-encompassing control, enabling vendors to easily modify different settings. The vendor has the ability to monitor multiple users, view booking information, and add and amend service data. Furthermore, past information on service costs, technicians assigned, and work dates provides insightful information that supports decision-making and quality assurance. The functionality provided by this vendor guarantees our home services platform's seamless functioning and further development.

### PROFILE DETAILS PAGE

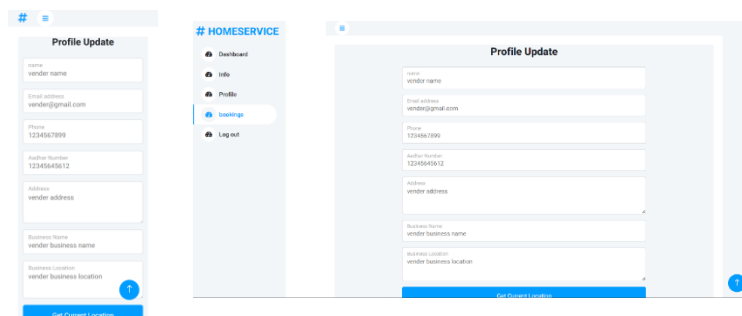
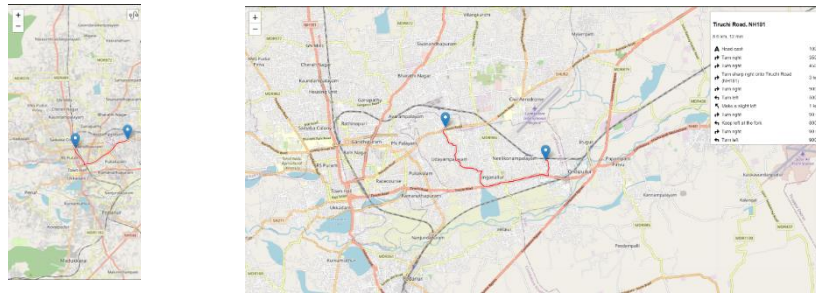


Fig 21 Profile Details Page

In this Fig 21, Vendors on our platform have the flexibility to keep their profiles current by updating relevant details. To ensure eligibility as a service provider, we collect specific information such as Aadhar Number and the vendor's resume. This verification process ensures a reliable and qualified pool of service providers. Additionally, vendors can specify their shop location or service area, facilitating a seamless connection with nearby customers. This dynamic feature enhances accessibility for both vendors and customers, fostering a more efficient and localized service experience on our platform.

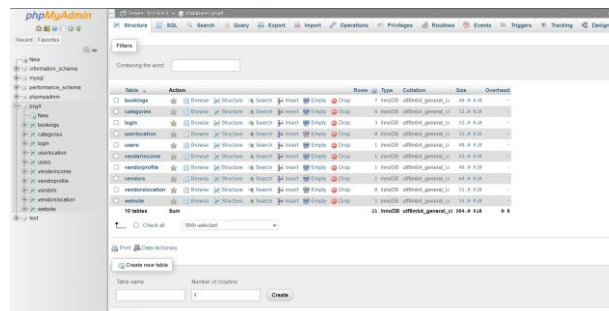
## MAP TRACKING PAGE



**Fig 22 Map Tracking Page**

In this Fig 22, A location tracking module is included in the Home Services platform to improve vendor convenience. By using real-time location data, this solution makes sure that consumers are shown relevant service categories and users according to their geographic location. This simplifies the User's choosing process and makes scheduling and appointment management more effective. Our product, which links consumers with nearby service providers for a quick and easy home service solution, is part of our dedication to user-centric design. It offers a personalized and responsive experience.

### 5.6 PHPMYADMIN DATABASE:



**Fig 23 PhpMyAdmin Database**

In this Fig 23, The utilized database for this page encompasses a wide range of attributes essential for seamless functionality. It incorporates diverse datasets such as booking history, categories pertinent to domestic service providers, login credentials for user authentication, user location details, comprehensive user information, vendor-specific details, vendor location data, and payment-related information. This database amalgamates crucial datasets essential for the platform's operation, encompassing user interactions, service categories, authentication, geographical data, and financial transactions, ensuring a robust foundation for comprehensive functionality and service delivery within the platform.

## XI. CONCLUSION

The project highlights the transformative impact of online service booking systems on our interaction with service providers, emphasizing the convenience, flexibility, and security they offer to users. These platforms have significantly improved efficiency and customer engagement for businesses, marking a crucial shift in how services are accessed and managed in modern society. The abstract underscores the pivotal role of these systems in optimizing service-oriented industries and encourages further exploration of their potential.

The development and implementation of the online multi-service booking system represent a milestone in enhancing convenience, efficiency, and accessibility in the service industry. This conclusion synthesizes the key insights from the introduction, system overview, and preceding sections of the report. It underscores how the system has revolutionized the process of scheduling appointments, making reservations, and accessing a diverse range of services.

The online multi-service booking system has emerged as a game-changer, benefiting both service providers and consumers. By offering a centralized platform that caters to various services, it has streamlined the service

delivery process and enhanced user experience. The system's advantages are manifold, addressing various facets of modern living and improving the ease of accessing services for users.

## **XII. FUTURE ENHANCEMENT**

In the realm of future enhancements, a mobile application for domestic services could embark on a journey of evolution, aiming to elevate user experience and extend its functionality. Integration of cutting-edge technologies like Artificial Intelligence (AI) and Machine Learning (ML) could revolutionize service recommendations, scheduling efficiency, and resource allocation, offering users tailored solutions. Augmented Reality (AR) features could provide an immersive experience, allowing users to visualize service outcomes beforehand. Furthermore, tapping into the Internet of Things (IoT) could empower users with remote monitoring and predictive maintenance capabilities, enhancing convenience and peace of mind. Expanding service offerings, enhancing communication tools, and fostering loyalty through gamification and incentives could further enrich the application's ecosystem. Embracing inclusivity, accessibility, and continuous performance optimization would ensure that the application remains responsive to diverse user needs and preferences, charting a path towards sustained relevance and excellence in the ever-evolving landscape of domestic services.

## **XIII. REFERENCES**

- [1] Faria Tabassum, Abu Mohammad Faisal, "Vulnerability Testing in Online Shopping Android Applications", 2017.
- [2] Aatmaj Janardanan, Ajil Paul C, "Android Application for Car Wash Services", 2018.
- [3] Adesh Jamnik, Munna Shahare, Sanjana Kamble, Nikesh Kale, "Digital Ticket Booking and Checking Using Aadhaar Card or Fingerprint and Android Application", 2020
- [4] Noura Hamad Alosaimi, Nahla Mohammed Elzein, Afaf Mohammed Tukka, "Mobile Application for Productive Families Business", 2020
- [5] Diogo Davidson Albuquerque, Shruthi Kuttipravan, Bhawna Gaur, Ganga Bhavani, "A Smart Mobile Application to Boost Grocery Shoppers Experiential Marketing", 2021