



Home Service Web Application

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Abstract

This research paper presents the Home Services Application. Is a groundbreaking digital innovation set to revolutionize the domestic service industry. With a user-friendly interface, it simplifies service discovery, booking, and management, offering real-time updates and a robust service history tracking system. Going beyond mere bookings, the app fosters trust and transparency between users and service providers, transforming traditional service dynamics. By addressing challenges in fragmented service delivery, it enhances visibility for providers, creating a more connected and accessible ecosystem. With features like real-time tracking and customizable service packages, the app is a driving force for change, providing an efficient, interconnected, and satisfying experience for both users and service providers in the realm of domestic services.



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I. INTRODUCTION

The Home Services Web Application emerges as a transformative and user-centric platform, revolutionizing the delivery of a diverse array of home-related services. Functioning as a centralized hub, it adeptly addresses the surging demand for efficiency and accessibility in the contemporary digital landscape. Through its seamless interface, users can effortlessly engage with service providers, schedule appointments conveniently, and manage their home service needs efficiently. Positioned as a strategic response to the escalating demand for streamlined home services, the platform leverages cutting-edge technology to establish a sophisticated digital ecosystem. This innovative approach facilitates effortless connections between users and skilled service providers, marking a significant departure from traditional fragmented service-seeking methods. The platform's strength lies in its provision of a comprehensive marketplace that caters to both routine maintenance and specialized projects, positioning it as the preferred destination for individuals in search of reliable professionals. Rooted in a user-centric philosophy, the application prioritizes simplicity, accessibility, and efficiency, empowering users to seamlessly connect with personalized service providers, ultimately saving time and ensuring that services align with their unique preferences.

II. LITERATURE REVIEW

The literature review in the development of the Home Services Web Application serves the crucial purpose of assessing and comparing existing home service systems, examining technology and techniques used in the proposed system, and identifying gaps and strengths in current models. It aims to highlight the innovative aspects and advantages that the application introduces to the home services landscape. By delving into topics such as current home service systems and technology employed, the review provides a foundation for understanding the context and potential improvements in the proposed system. The chapter concludes by summarizing key insights, setting the stage for the next phases of the project.

III. METHODOLOGY

The optimal process model chosen for the development of home service applications is iterative development, leveraging a systematic repetition of small cycles called iterations. This approach aims to systematically refine and enhance the product to meet user needs effectively. The project adhered to the Software Development Life Cycle (SDLC), commencing with a straightforward implementation and progressively advancing in complexity and feature richness until the final system was achieved. This exemplifies that the iterative model doesn't commence with a comprehensive set of requirements. Following the Software Development Life Cycle, there are five pivotal stages in software creation: Requirement Analysis, Design, Implementation, Testing, and Evaluation.

IV. REQUIREMENT ANALYSIS AND DESIGN

The requirement analysis for the system encompasses a thorough examination of functional necessities, with a focus on two key actors – the administrator and the customer. These actors play integral roles in shaping the system's functionality. The functional requirements, derived from survey analysis and articulated through Unified Modeling Language (UML) diagrams, outline the system's behavior comprehensively. Secure login, user registration, service browsing, booking, profile management, and inquiry submission are among the detailed customer functional requirements. Admin functional requirements include secure login, creation of admin accounts, service management, user type management, inquiry handling, and the ability to manage static pages on the platform. These requirements collectively provide a detailed and holistic view of the system's operational dynamics, ensuring a robust and user-friendly experience for both customers and administrators. The figure below presents the Use case Diagram

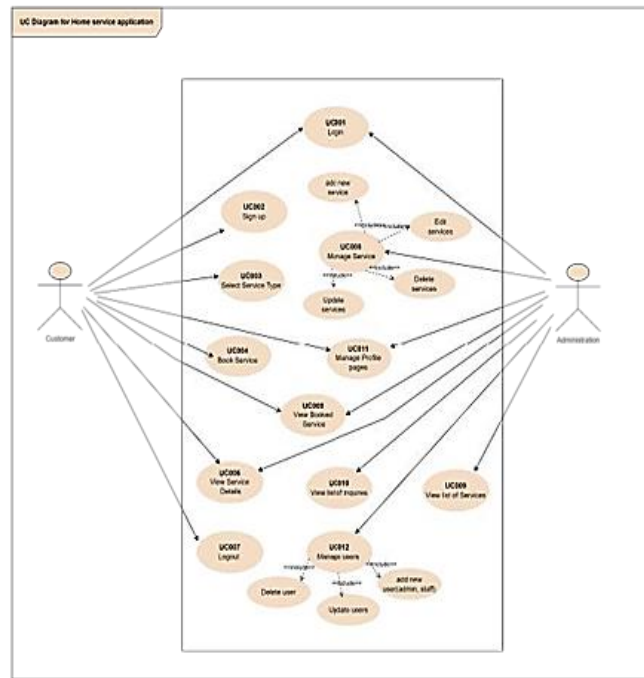


Fig. 1. Use case Diagram

The system architecture, representing its conceptual design, is structured into three layers: the client-server cluster, the application server cluster, and the database server cluster. Users or actors interacting with the system are distributed across these clusters, each with its unique rules, characteristics, and responsibilities. The client-server cluster serves as the data access layer, allowing users to interact with the system. The application server cluster functions as the application layer, providing a user interface and enabling access to various system functions. Bridging the communication between the client-server and application server clusters, the business logic layer operates as a controller, validating user input and facilitating data transfer within the system.

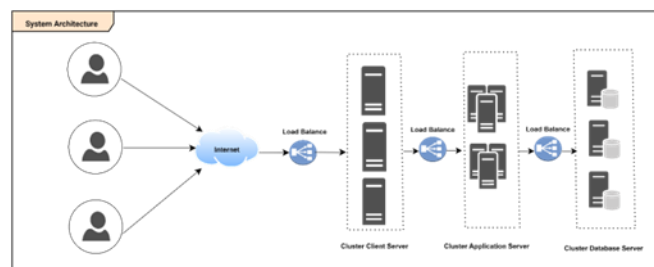


Fig. 2. System Architecture

V. IMPEMNTATION AND TESTING

In the home service application, The front-end development leverages javascript, css, and bootstrap to create a dynamic and visually appealing user interface. Javascript provides interactivity, allowing users to seamlessly navigate the application, while css ensures a polished and consistent layout. Bootstrap, a front-end framework, streamlines the development process by offering pre-designed components and responsive styling, enhancing the application's aesthetics.

On the back-end, php serves as the scripting language to handle server-side logic. Php processes requests, interacts with the database, and manages the core functionalities of the application. The combination of these technologies enables a robust and efficient home service application, where

the front-end delivers an engaging user experience, and the back-end ensures smooth functionality and data management.

Table 5.3 Black box test for Manage Service

Input	Expected Result	Actual Result	Status
Valid service details (name, description, price, etc.)	Service should be successfully added to the system.	Service successfully added with valid details.	Pass
Valid service ID (existing), updated service details	Service details should be successfully updated.	Service details successfully updated for existing ID.	Pass
Invalid service ID (non-existent), updated service details	System should display an error message.	Proper error message displayed for non-existent ID.	Pass
Valid service ID (existing), service should be deleted	Service should be successfully deleted from the system.	Service successfully deleted for existing ID.	Pass
Invalid service ID (non-existent), service should be deleted	System should display an error message.	Proper error message displayed for non-existent ID.	Pass

VI. CONCLUSION

In conclusion, the Home Services Application stands as a groundbreaking venture poised to redefine the dynamics of the domestic service industry. This innovative app, designed with a user-centric approach, introduces a seamless and efficient platform for connecting service seekers with providers. Through its intuitive features, such as easy service discovery, transparent communication channels, and robust booking capabilities, the app addresses the challenges of the traditional fragmented service delivery models. It not only simplifies the process of finding and booking services but empowers users to manage their requests effectively.

By fostering trust, transparency, and accessibility, the Home Services Application contributes to a more connected and efficient service ecosystem. As it paves the way for the digital transformation of home services, this app is not just a tool but a catalyst for positive change, promising a future where domestic services are streamlined, accessible, and tailored to meet the evolving needs of users and service providers alike.

VII. ACKNOWLEDGMENT

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Fig. 3. Home page

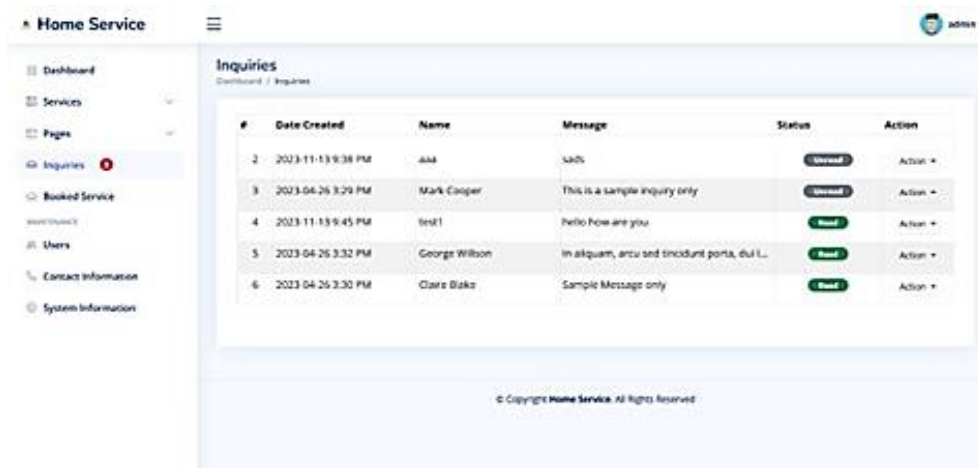


Fig. 4. Inquiries page

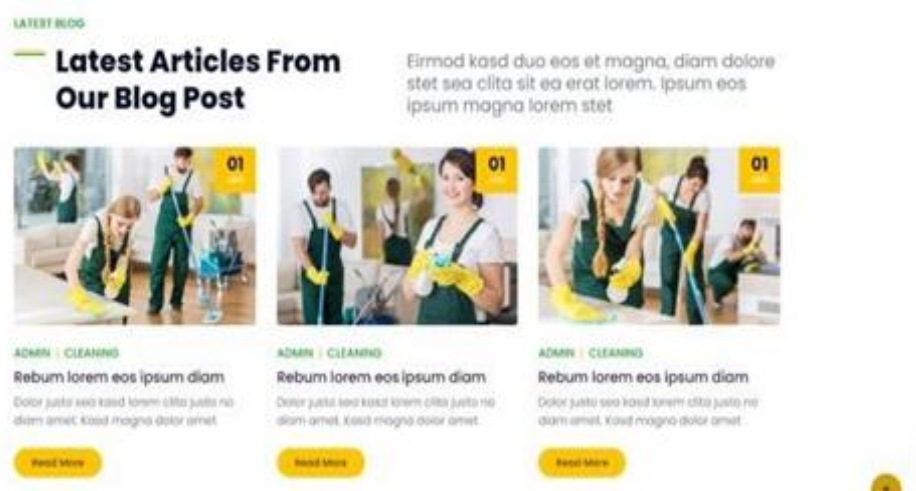


Fig. 5. Service page

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