

ZAPPY HOME

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ABSTRACT

The Zappy Home is a platform designed to connect service seekers with service providers for various household tasks. The platform enables service seekers to easily search and book services such as cleaning, plumbing, AC repairs, painting and more. The Zappy Home provides a user-friendly interface that allows service seekers to search for services and book the services easily. The rating system allows service seekers to rate service providers, ensuring a high level of quality and transparency. The employee dashboard allows the service providers to manage profile and view service allocation. The admin dashboard allows the platform owner to manage the services, service providers and users. The application is built using modern technologies such as HTML, CSS, PHP, JavaScript and MySQL, providing a scalable and efficient solution for the home services industry.

INTRODUCTION

In today's fast-paced world, homeowners often struggle to find reliable service

providers for their household tasks. This can be time-consuming and frustrating, especially for those with busy schedules. To address this problem, we propose a web application that connects homeowners with service providers for various household tasks. The Zappy Home is a platform designed to make it easy for homeowners to find and book reliable service providers for their needs. With this web application, we aim to simplify the process of finding and booking reliable home service for homeowners.

The Zappy Home is a web-based platform developed to address the growing demand for a centralized and efficient system for managing household services. The platform is designed to serve three distinct user groups: clients, workers, and administrators. Clients are the primary users who need services like cleaning, painting, or maintenance. Workers are professionals or service providers who carry out these tasks, and administrators are responsible for overseeing the platform's operations, managing users, and ensuring smooth workflows.



The core objective of The Zappy Home is to provide a reliable and intuitive system where clients can easily browse available services, book appointments, and receive timely assistance. For workers, the system serves as a portal to view assigned tasks, update progress, and maintain communication with clients and administrators. Administrators have backend access to manage all aspects of the platform, including adding or modifying services, registering workers, assigning tasks, and generating reports.

The platform is developed using a combination of HTML, CSS, and JavaScript for the front-end interface, offering a responsive and user-friendly design. PHP and MySQL are used for backend development and data management, ensuring that the application remains secure, and scalable. dynamic, The architecture of the system follows modular design principles, which makes it easier to maintain, expand, and deploy.

The Zappy Home distinguishes itself from conventional methods by providing real-time communication, role-based access, and centralized data management. This not only minimizes the possibility of miscommunication and delays but also improves the overall efficiency of household service delivery. The system has been carefully designed to accommodate future enhancements, such as mobile application integration, payment gateways, and geolocationbased service matching.

By leveraging modern web technologies, The Zappy Home aspires to redefine the way household services are accessed and delivered, bringing together clients and workers on a single platform that emphasizes convenience, reliability, and accountability.

LITERATURE SURVEY

The increasing demand for digital convenience in managing household services has driven the development of numerous online platforms that bridge the gap between service providers and clients. A literature survey of similar platforms and related technologies provides insight into prevailing trends, technologies, and user expectations that shape the development of such systems.

Several studies and implementations have been conducted on service booking platforms. For example, UrbanClap (now Urban Company) is a widely recognized platform that enables users to find and schedule professional home services. According to a case study by Business Today (2021), UrbanClap succeeded due to its efficient matching algorithm, trust-building features like verified professionals, and transparent pricing. The study highlights the importance of user-friendly design and secure backend which systems, The Zappy Home incorporates.

A research paper by Kumar et al. (2019) titled "A Web-Based Solution for On-Demand Home Services" emphasizes the significance of separate modules for users, service providers, and administrators. Their solution, similar to Zappy Home, used PHP and MySQL for backend operations and employed a modular design to segregate functionalities, improving maintainability and security.



Another relevant study by Rao and Shah (2020) explored the integration of dynamic scheduling and task assignment in web-based service platforms. Their system utilized clientserver architecture and emphasized the importance of real-time task updates for workers. The Zappy Home adopts similar practices by allowing workers to view and manage assigned tasks in real time.

From a technical perspective, HTML, CSS, and JavaScript remain the standard technologies for responsive and interactive front-end development, as discussed in "Modern Web Development: Best Practices" by Smith (2020). PHP and MySQL are still widely used in backend systems for their compatibility, ease of use, and strong community support.

In conclusion, the literature shows that effective home service platforms focus on modular design, real-time communication, and user-friendly interfaces. The Zappy Home platform aligns with these principles and further aims to enhance accessibility and trust between clients and service providers.

The Zappy Home proposes a structured and scalable web application that addresses these challenges through an organized set of features tailored for clients, workers, and administrators. The system allows clients to register, browse services, schedule tasks, and track service progress. They can view service provider details, track upcoming appointments, and provide feedback.

For workers, the platform enables seamless access to assigned tasks, updates on service

requests, and the ability to mark task completion. Workers can manage their task schedule and availability, ensuring optimal use of their time and skills.

Administrators are equipped with backend tools that enable them to add or edit service categories, onboard new workers, assign tasks manually (if required), and review system performance. The admin panel also includes access to analytics such as completed tasks, revenue trends, and user activity.

By offering a centralized, role-based, and user-friendly platform, The Zappy Home ensures greater reliability, transparency, and operational efficiency in the domain of household service booking.

implement, and maintain.

EXISTING SYSTEM

In the traditional system, clients depend heavily on informal networks to identify and hire service providers. These networks may include friends, family, neighborhood bulletin boards, or generic online listings. There is no structured workflow to track service requests or assign tasks based on availability and skill level. Clients often have to negotiate rates, schedule times manually, and have no recourse in case of poor service delivery.

Additionally, service providers or workers operate in isolation, without any standardized system to receive bookings or communicate with clients. They often manage their work through personal phone calls and word-ofmouth references, which limits their customer reach and leads to inconsistent earnings.



There is no guarantee of job continuity or visibility into the market demand.

Administrators or business owners who attempt to manage such services manually are overwhelmed with tasks like maintaining schedules, resolving disputes, and handling customer feedback. As a result, service delivery suffers, customer satisfaction decreases, and business efficiency is severely hampered.

ARCHITECTURAL DESIGN

The system architecture follows a three-tier web architecture, which separates the application into three layers — presentation, application, and data — to enhance maintainability and scalability.



Fig: Architecture Design

The **presentation layer** is responsible for handling all user interactions. Built using HTML5, CSS3, JavaScript, and Bootstrap, this layer ensures that users can easily navigate through the application and interact with its features. The interface is responsive, allowing users to access the system across different devices including desktops, tablets, and smartphones.

The **application layer**, implemented using PHP, contains the business logic of the system. It processes all client and server requests, handles sessions, performs user authentication, and connects to the database for data manipulation. This layer also includes logic for assigning tasks to workers, updating booking statuses, and managing feedback and service data.

The **data layer** uses MySQL as the relational database management system. This layer stores all critical data, including user credentials, service listings, bookings, feedback, and administrative records. The data layer ensures secure and consistent access to structured information and enforces relationships between entities through the use of foreign keys and indexing for performance optimization.

This multi-tiered architecture allows each layer to operate independently, ensuring high modularity and facilitating future enhancements or technological upgrades without affecting the entire system.

Future Enhancement

In the future, *The Zappy Home* platform can evolve into a more dynamic and intelligent system by incorporating several advanced features aimed at enhancing both user and service provider experiences. One of the key improvements would be the development of dedicated mobile applications for Android and iOS devices, enabling users to book services and manage requests on the go, while



also allowing service providers to receive instant job notifications and updates. Realtime GPS tracking can be implemented to let users monitor the live location and estimated arrival of service personnel, fostering greater trust and reliability. The integration of a secure and versatile online payment gateway would allow users to make cashless payments using various methods such as UPI, net banking, credit/debit cards, and popular digital wallets, thus improving convenience and security.

Additionally, incorporating an in-app chat feature would allow real-time communication between service seekers, providers, and customer support, ensuring that doubts, rescheduling, or special instructions can be handled instantly. Artificial Intelligence (AI) and Machine Learning (ML) technologies could be leveraged to offer personalized service recommendations based on users' past activity, preferences, and seasonal trends. Furthermore, a loyalty or reward system could be introduced to encourage repeat usage and build customer retention by offering discounts or points for frequent bookings.

To make the platform accessible to a broader audience, support for regional languages can be added, making it more inclusive and useracross friendly different linguistic demographics. Introduction of subscriptionbased service packages-such as monthly or quarterly maintenance plans-would offer cost-effective solutions for regular users. Push notifications and email alerts can keep users updated about service confirmations. technician arrival times, feedback requests, and promotional offers. Enhanced analytics

for admins and service providers could provide useful insights into service trends, performance ratings, and customer behavior, which would help in improving service quality and operational strategies. These future enhancements aim to transform *The Zappy Home* into a smarter, more reliable, and fully integrated home services platform that meets the changing demands of modern households.