EasyWork: A Centralized Service Provider Booking System for Sri Lanka

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***Abstract*— The Service Provider Booking Mobile Application and Web-based Platform, known as EasyWork, connects users in Sri Lanka with reliable, verified professionals across various fields such as plumbing, electrical work, tuition, and beauty care. The platform aims to simplify the process of finding, booking, and communicating with service providers, while also promoting freelance opportunities and improving digital payment adoption. EasyWork features a user-friendly mobile application developed using React Native and React.js, and a web-based admin panel built with React.js and JavaScript. Firebase powers the backend, offering real-time database management, authentication, and secure storage. User authentication is handled by Clerk, and an integrated ChatGPT API enables real-time chatbot communication. Key functionalities include real-time booking based on provider availability, geolocation-based matching, secure digital payments, verified profiles, a review and ranking system, and real-time notifications. Premium advertisement options and a dual-role user model further enhance platform flexibility and engagement. Developed using the Agile methodology, the platform benefits from iterative improvement and stakeholder feedback integration. Administrators oversee operations through a dedicated portal that enables quality control, user management, and data reporting. The benefits of EasyWork app include improved accessibility to reliable services, new economic opportunities for underemployed individuals, increased digital literacy through mobile-first technology, and enhanced customer satisfaction through transparency and accountability. The platform's scalable, secure design ensures it can adapt to future demands while maintaining high standards of performance. Through EasyWork, this project contributes to the digital transformation of Sri Lanka's service industry, promoting economic empowerment, operational efficiency, and inclusive employment.**

Keywords*— *booking, employment, freelance, geolocation, services

I. INTRODUCTION

In today's fast-paced society, timely access to reliable service providers has become an essential requirement for households and businesses alike. In Sri Lanka, tasks such as plumbing, electrical repairs, tuition, domestic cleaning, and beauty services are often managed through informal referrals or outdated online directories. These conventional methods are limited by a lack of verification, poor usability, and an absence of real-time communication, resulting in missed appointments, poor service quality, and customer dissatisfaction. Furthermore, in a country where smartphone penetration continues to grow, the lack of a dedicated mobile-first platform for booking verified services presents a significant gap in digital infrastructure.

Simultaneously, Sri Lanka faces high levels of underemployment, particularly among youth and women who possess valuable skills but have limited access to consistent, flexible job opportunities. Traditional employment structures often exclude those seeking freelance or part-time roles. The growing gig economy, supported by digital platforms, presents a promising solution to address this problem by offering independent workers access to broader markets [1]. However, existing platforms in the region often lack user-centric design, local language support, reliable service matching algorithms, and strong verification systems, limiting their impact [2], [3].

To address these challenges, this research introduces EasyWork, a centralized service provider booking system tailored to the Sri Lankan market. EasyWork is a mobile application supported by a web-based admin panel that enables customers to find, book, and communicate with verified service professionals across various categories. The platform includes features such as real-time appointment scheduling, availability tracking, profile management, ratings and reviews, geolocation-based matching, secure payment integration, and premium advertisement options.

EasyWork also provides significant benefits to service providers, enabling them to create and manage professional profiles, update availability, receive feedback, and promote their services through premium advertisements. By providing a dual-role structure, users who initially register as customers can later opt to become service providers, creating flexibility and inclusivity within the system. Administrators are given a web-based dashboard for managing service providers, verifying credentials, monitoring complaints, and generating analytical reports.

This study was guided by several objectives that focus on addressing the gaps in Sri Lanka's service provider landscape. The primary objective was to improve the reliability of provider discovery and booking by

implementing verified profiles and transparent feedback mechanisms. Another key aim was to reduce booking friction through the integration of availability-based scheduling and real-time updates, ensuring customers can connect with service providers more efficiently. Additionally, the system sought to enhance platform trust and safety by enabling administrator-led verification and identity checks. Location-aware search was introduced to improve the relevance and responsiveness of results, allowing users to find nearby service providers quickly. Finally, iterative user testing was carried out to evaluate the platform's usability, trustworthiness, and overall efficiency, ensuring the solution remained user-centered throughout development.

Table 1: User preferences and feature adoption

Feature	User Preference (%)	Adoption Rate (%)
Real-time booking	85%	80%
Verified profiles	90%	75%
Geolocation-based search	70%	65%
Chatbot support	60%	55%
Ratings and reviews	88%	78%

The research was driven by several questions designed to measure the system's impact. The first question examined how availability-based booking could improve efficiency and minimize scheduling conflicts between customers and service providers. The second question focused on whether provider verification and the introduction of a rating and review system would increase user trust and booking confidence. The third question explored the effect of geolocation-driven search on provider discovery, specifically whether it helped reduce the time taken to locate professionals and improved overall user satisfaction.

The platform is developed using modern technologies including React Native and React.js for the front end, Firebase for real-time data management and authentication, Clerk for user identity management, and the ChatGPT API for intelligent chatbot support. The development process follows Agile methodology, emphasizing continuous stakeholder feedback, flexible sprint planning, and iterative feature delivery.

By situating EasyWork at the intersection of Sri Lanka's digital transformation and the global rise of gig-based employment platforms, this project contributes both technologically and socially. It aims not only to improve convenience for customers but also to empower underemployed individuals, particularly women and youth, with sustainable livelihood opportunities.

This paper discusses the system architecture, development methodology, features, and expected impact of the EasyWork platform on service delivery and freelance employment in Sri Lanka. By improving transparency, efficiency, and inclusivity, EasyWork aims to contribute meaningfully to the digital transformation of the country's service economy.

Table 2: Feature comparison with TaskRabbit and UrbanClap [Source: TaskRabbit and UrbanClap]

Feature	EasyWork	TaskRabbit	UrbanClap
Real-time Booking	Yes	No	Limited
Provider Verification	Yes	Basic	Yes
Geolocation-based Search	Yes	Yes	Yes
In-app Chat / Chatbot	Yes (Chat bot)	Yes (Messaging)	Yes
Ratings & Reviews	Yes	Yes	Yes
Admin Oversight	Yes	No	Partial
Language Support	English & Sinhala	English only	English + Regional
Secure Payments	Yes	Yes	Yes
Premium Ads for Providers	Yes	No	Yes

II. MATERIALS AND METHODOLOGY

A. Materials

The development of the EasyWork platform was supported by a combination of modern tools, technologies, and primary data collected from potential users and service providers in Sri Lanka. Key technologies included React Native for mobile application development [4] , React.js and JavaScript for the web-based admin panel, and Firebase for real-time data management, authentication, and cloud storage. User identity management was handled using Clerk, which offered secure and scalable authentication services.

To support real-time communication and enhance user interaction, the platform integrated the ChatGPT API to provide an intelligent chatbot capable of answering basic inquiries and guiding users through the app's core features. For financial transactions, a dual payment method was adopted: a secure PayHere online payment gateway for subscriptions and premium advertisements [5], and a manual slip upload system for alternative payment validation.

Various development and design tools were essential to the project. Figma was used to create interactive UI/UX prototypes, which were refined through user feedback sessions. Jira supported Agile project management, sprint planning, task tracking, and progress monitoring. Development environments included Android Studio for mobile app testing and Visual Studio Code for frontend and backend coding tasks.

Primary data for requirements gathering was collected through structured Google Form surveys distributed among target user groups, and in-depth interviews conducted with professionals including electricians, tutors, gardeners, and domestic service providers. Additional inspiration and direction were obtained from reviewing existing local platforms, as well as international solutions such as TaskRabbit and Thumbtack [6], [2], [3].

B. Methodology

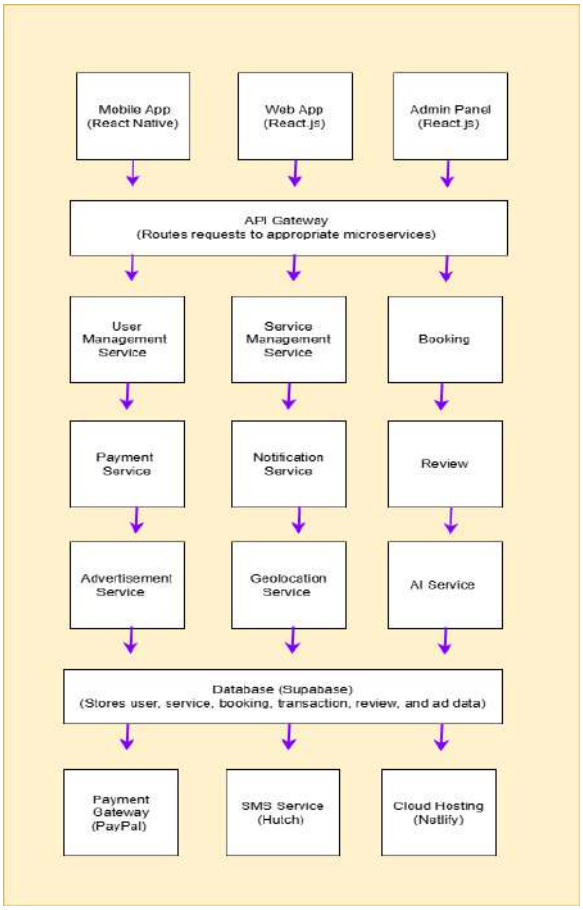


Fig.1. High level architectural diagram [Source:EasyWork System]

The EasyWork platform was developed using the Agile software development methodology. Agile was chosen due to its iterative nature, allowing continuous integration of user feedback, rapid prototyping, and incremental feature delivery. Development was organized into multiple two-week sprints, with each sprint focusing on delivering a specific set of features, such as user registration, profile creation, booking engine, and chat integration.

Sprint planning was managed using project management tool like Jira, which facilitated task tracking, bug fixing, and team coordination. UI/UX wireframes were designed using Figma and shared with focus groups for usability testing. Their feedback guided several design refinements to improve navigation, accessibility, and visual clarity.

Throughout development, both unit and integration testing were conducted to ensure the system functioned reliably. User acceptance testing sessions were held with a small group of real users from both customer and service provider demographics to validate the application's effectiveness and ease of use before public release.

III. RESULTS AND DISCUSSION

A. Sample Collection

The development of the EasyWork platform was grounded in a comprehensive and systematic requirement gathering process aimed at capturing the nuanced needs of both service providers and service seekers across Sri Lanka. Recognizing that the success of a digital marketplace depends heavily on its alignment with user expectations, the project team adopted a mixed-method approach combining quantitative surveys, qualitative interviews, and competitor benchmarking to inform the system's functional and technical specifications.

The initial data collection phase involved structured online surveys distributed via Google Forms. The target audience was segmented into two major stakeholder groups: (1) end-users primarily individuals and households frequently in need of skilled services such as plumbing, electrical repairs, tutoring, gardening, and personal care; and (2) service providers - freelancers, gig workers, and small business owners offering those services. The survey instrument was designed to gather detailed information on how users currently locate service providers, pain points in service booking and communication, digital tool usage habits, language preferences, and desired features in a mobile or web-based application.

The surveys revealed several key trends. A significant majority (over 78%) of end-users reported dissatisfaction with current service discovery methods, which include word-of-mouth referrals, social media groups, and classified advertisements. They noted issues such as unreliable availability, inconsistent pricing, and difficulty in verifying the professionalism or legitimacy of providers. Furthermore, over 70% expressed a preference for using a mobile application rather than a desktop website, reinforcing the need for a mobile-first solution. Additional preferences included the ability to check provider availability in real time, make secure digital payments, and review past user ratings before confirming a booking.

To complement the survey data and gain deeper insight into provider-side challenges, the team conducted semi-structured interviews with 15 freelance service providers and small-scale entrepreneurs. Participants were purposefully selected to represent diverse service categories and geographical locations, ensuring comprehensive coverage of urban and semi-urban environments. Interviewees included electricians, private tutors, landscapers, wedding decorators, air conditioning technicians, and home-based beauticians. These interviews offered qualitative depth by exploring their experiences in securing work, managing customer expectations, handling cancellations, and advertising services.

Recurring themes emerged from these conversations. Many providers highlighted the lack of a reliable platform to consistently promote their services and build a professional digital presence [7]. Some expressed frustration with having to rely on unstructured communication channels like WhatsApp or phone calls to confirm appointments, leading to missed bookings or scheduling conflicts. Others cited the absence of a transparent review system as a barrier to gaining customer trust, especially for new entrants in the market [8]. Providers also noted limited access to digital payment tools and emphasized the importance of a multilingual interface to reach non-English speaking clients.

In addition to direct user feedback, the requirement gathering phase included a thorough competitor analysis. This involved reviewing both domestic and international service booking platforms, with a focus on their core functionalities, usability, and alignment with local market needs. Domestic platforms were examined for their user onboarding experience, layout, service categories, and communication systems. While these platforms demonstrated a foundational approach to digitizing local services, they lacked real-time communication features [9], effective verification processes, geolocation-based search, and dynamic availability scheduling.

The research also considered mature international platforms like TaskRabbit, Thumbtack, and UrbanClap (now Urban Company), which offer advanced user experiences through intelligent matching algorithms, portfolio-based provider profiles, and integrated support systems. However, these solutions are often tailored to Western or urban Indian markets and lack cultural, economic, and linguistic contextualization for Sri Lanka [10]. For instance, features such as offline payment support, Sinhala language options, and low-bandwidth optimization crucial for many Sri Lankan users were largely absent.

The competitor analysis confirmed that while global platforms provide a high benchmark for design and functionality, there remains a unique opportunity to localize these innovations. The insights from this stage of research directly informed the decision to prioritize bilingual support (English and Sinhala), verified user identities, real-time booking systems, and profile ranking mechanisms based on both ratings and responsiveness. Additionally, it highlighted the value of including premium advertisement slots for service providers to boost their visibility in a fair and transparent manner.

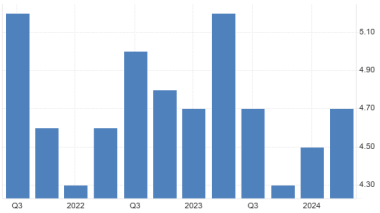


Fig.2. Sri Lanka unemployment rate [Source: Department of Census and Statistics – Sri Lanka]

In summary, the sample collection phase was instrumental in shaping the strategic direction of the EasyWork platform. It offered not only a user-validated feature roadmap but also ensured that the system was built on an inclusive and scalable foundation. By anchoring development in real-world data and stakeholder experiences, EasyWork is positioned to offer meaningful improvements in the way freelance services are discovered, accessed, and managed in Sri Lanka

B. Sample Analysis

The analysis of the collected data informed both the system architecture and the user experience design of the EasyWork platform. Quantitatively, over 80% of the surveyed users reported difficulty in locating trustworthy service providers using current means. A similar percentage expressed interest in a single platform that offers verified listings, location-based filtering, and service ratings. Additionally, more than 70% of respondents preferred interacting with an application in their native language (Sinhala or Tamil), especially when booking time-sensitive or personal services.

From the provider's perspective, 65% indicated that they lacked an online presence and found it difficult to advertise their services. These insights validated the need for provider-side features such as profile creation, image uploads for portfolios, availability calendars, and integrated communication tools. Additionally, the analysis emphasized the importance of enabling both real-time chat and automated chatbot responses to assist users during the booking process. This led to the integration of the ChatGPT API for intelligent, scalable, and language-sensitive support.

The system design decisions were also influenced by accessibility findings. A large number of users relied on Android smartphones with limited data plans, reinforcing the need for a lightweight mobile application with offline-friendly features. Service discovery via geolocation and the ability to filter by proximity were highlighted as crucial to improving booking speed and reducing miscommunication.

Table 3: User Acceptance Testing (UAT) Outcomes [Source: User Acceptance Report]

Metric	Before EasyWork	After EasyWork (UAT Results)	Improvement (%)
Booking Success Rate	65%	92%	27%
Average Booking Time	15 mins	5 mins	66% faster
Provider Visibility	Low (limited reach)	High (verified profiles)	Increased by 45%
Customer Satisfaction	3.2/5	4.6/5	44% improvement

On the administrative side, feedback from users and providers indicated a preference for accountability mechanisms. The platform, therefore, incorporates a comprehensive rating and review system, as well as

user reporting tools. Verified users and providers are given badges to distinguish them in search results. Monetization strategies such as tiered advertisements (basic and premium listings) were deemed acceptable, provided they maintained fairness and transparency. The ability for providers to boost their profiles through paid ads was designed in response to this input.

One notable insight from the competitor analysis was the success of platforms that incorporated gamified user engagement, such as reward systems for positive reviews or consistent service quality. While not implemented in the current version, these features are part of the future roadmap. The analysis also indicated that data analytics for providers such as service booking trends, peak hours, and customer retention rates could significantly improve operational planning. These were considered in the admin panel's reporting capabilities.

Overall, the sample collection and subsequent analysis revealed the gaps in Sri Lanka's digital service marketplace and provided a strong empirical foundation for EasyWork's development. Every core function of the platform from mobile responsiveness and bilingual interface to real-time communication and secure payments is directly tied to insights derived from actual user and provider behavior. The platform thus offers a data-driven, inclusive, and scalable solution aimed at transforming how services are accessed and delivered across the country.

IV. CONCLUSION

This paper presented the design, development, and implementation of EasyWork, a centralized digital platform that connects users in Sri Lanka with verified service providers. The platform addresses several critical gaps in the current service industry, including lack of trust, poor accessibility, unstructured communication, and underutilization of skilled labor. Through extensive requirement gathering, technical innovation, and iterative development, EasyWork delivers a scalable and inclusive solution that promotes both user convenience and economic opportunity.

The integration of real-time booking, geolocation filters, secure payments, multilingual support, and AI-driven communication sets EasyWork apart from existing solutions. The platform's architecture, powered by React Native, Firebase, Clerk, and ChatGPT API, ensures responsive performance and modular scalability. Moreover, the emphasis on user-centric design, informed by surveys and interviews, ensures that the system remains aligned with stakeholder needs.

EasyWork's social impact is equally significant. By empowering freelancers and small-scale service providers especially youth and women the platform contributes to economic inclusion and digital literacy [11], [12]. Its ability to improve access to services also benefits consumers, offering a transparent, reliable, and efficient channel for fulfilling day-to-day needs.

Looking ahead, several enhancements are envisioned. These include AI-powered service recommendations, gamification for user engagement, expanded analytics for providers, and improved offline functionality. These features will further enhance usability, provider success, and platform sustainability. A phased timeline can be followed, where short-term goals (within 2–3 months) focus on gamification features and offline functionality, medium-term goals (5–17 months) address expanded analytics and improved provider insights, while long-term plans (10–10 months) can prioritize AI-powered recommendations and advanced personalization. However, limitations such as budget constraints, technical complexity, reliance on third-party integrations, and the need for consistent user adoption may impact the pace and scope of these enhancements.

In conclusion, EasyWork not only represents a technological innovation but also serves as a digital transformation model that directly supports the objectives outlined in Sri Lanka's National Digital Economy Strategy 2030 [13]. By aligning modern software engineering practices with localized socioeconomic realities, the platform sets a precedent for impactful and inclusive digital entrepreneurship in Sri Lanka's growing service economy.

A. User Interface screenshots

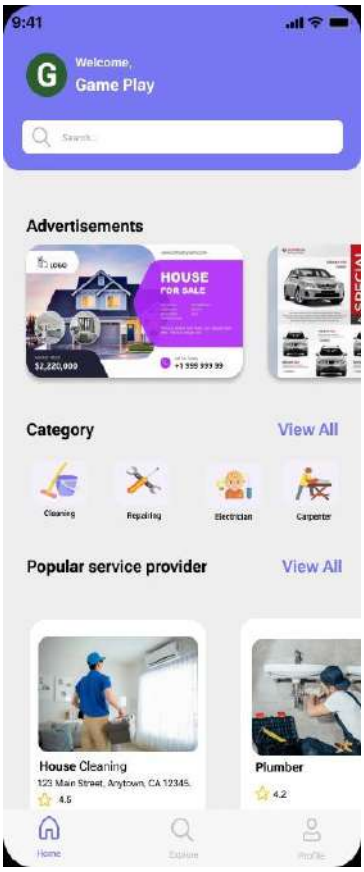


Fig.3. Home page {Source: EasyWork System]



Fig.4. Add service interface [Source: EasyWork System]

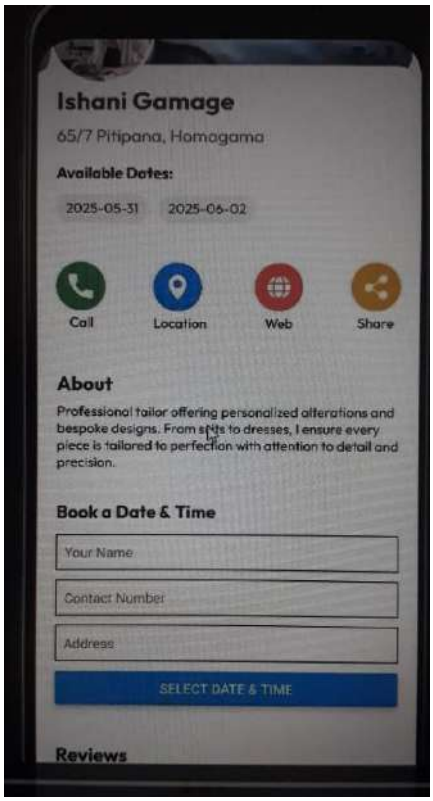


Fig.5. Service provider profile interface [Source: EasyWork System]

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