



# International Journal of Research Publication and Reviews

Journal homepage: [www.ijrpr.com](http://www.ijrpr.com) ISSN 2582-7421

## Let Us Fix It!!

*Pushkar Rane, Swaraj Salavi, Sushant Rane, Ms. Pallavi Sudhir Marulkar*

Dept. Computer Engineering Pillai HOC College of Engineering and Technology (Mumbai University) Rasayani, India

---

### ABSTRACT:

"Let Us Fix It" is a cloud-based service platform that connects users with skilled technicians for home repairs and maintenance. The platform integrates a secure cloud data storage system for serviceman registration, ensuring efficient management of technician profiles, availability, and credentials. Leveraging cloud technology, the system enables real-time data access, seamless updates, and scalability to accommodate a growing network of service providers. Users can browse registered technicians, book services, and track requests, while service professionals benefit from an optimized registration process and increased visibility. The platform enhances transparency, security, and accessibility, offering a reliable and efficient solution for home service needs.

**Keywords:** - Cloud-based service platform, repair and maintenance, service provider management, real-time tracking, digital service aggregation, on-demand repair services.

---

### Introduction:

The increasing reliance on technology has transformed various service-based industries, including repair and maintenance. Traditional methods of finding service providers, such as newspaper ads or word-of-mouth recommendations, often lead to delays, inconsistent pricing, and uncertainty regarding service quality. To address these challenges, *Let Us Fix It* is developed as a cloud-based platform that connects users with verified repair technicians. This platform offers a structured approach to booking repair services, ensuring reliability, efficiency, and transparency.

One of the key features of *Let Us Fix It* is its cloud-based storage system, which securely maintains information about service providers, including their skills, certifications, customer ratings, and service history. This allows users to make informed decisions based on past reviews and ensures accountability in service delivery. Additionally, the platform provides automated cost estimation, real-time service tracking, and secure payment options to enhance user experience.

Unlike traditional service models, *Let Us Fix It* offers a streamlined digital solution that benefits both users and service providers. Customers can easily book services from registered professionals, while technicians gain better visibility and access to a wider customer base. By leveraging cloud computing and secure authentication mechanisms, the platform ensures data security and seamless access, making repair services more accessible and efficient for everyone.

---

### Literature Review

The rapid digitalization of services has brought significant advancements in how complaints and maintenance requests are handled across various sectors. Existing digital complaint management systems, such as municipal applications like the Swachhata App in India, allow users to lodge civic complaints. However, many of these systems lack user-friendly interfaces, real-time updates, or mechanisms for user feedback. This creates a communication gap between service seekers and providers, often leading to delayed or unresolved issues. The need for efficient, transparent, and accessible platforms is increasingly critical in both public and private service sectors.

Private companies have introduced app-based service solutions such as UrbanClap (now Urban Company) and Housejoy, offering users access to various household services. While these platforms provide convenience, they often operate on centralized models that exclude small local service providers. Moreover, features like complaint tracking, real-time technician updates, and personalized service history are either limited or absent. Academic studies, such as those by Singh et al. (2019), show that user satisfaction is highly correlated with features like timely response, real-time tracking, and transparent feedback systems, suggesting that platforms need to integrate these functionalities to remain effective and user-centric.

In addition to platform design, several studies emphasize the importance of incorporating modern technologies such as Natural Language Processing (NLP) and sentiment analysis to enhance complaint prioritization and customer engagement. Research by Mohta et al. (2020) highlights how analyzing user feedback through machine learning models can help predict service quality and technician performance. Furthermore, security and privacy in digital service platforms are critical. Implementing secure authentication mechanisms and encrypted transactions is recommended in several studies to maintain

user trust. Despite technological progress, there remains a gap in platforms that combine all essential features—real-time complaint handling, technician integration, user feedback, and local service empowerment—in a single seamless interface. *Let Us Fix It* is designed to address these challenges.

---

## Methodology:

The methodology for 'Let Us Fix It' platform is designed as a cloud-based service that connects users with skilled repair technicians. The system enables users to request services, schedule appointments, track service status in real time, and provide feedback. The methodology focuses on system architecture, data management, service provider verification, and user interaction.

The system follows a client-server architecture, where the web-based application serves as the client, and cloud-based servers handle data processing, storage, and authentication. The cloud infrastructure ensures scalability, security, and remote accessibility. The system integrates a database for storing user and service provider information, booking records, and transaction details.

### 1. User Registration and Authentication

Users and service providers must register on the platform using a secure authentication process. The registration module collects necessary details such as name, contact information, service expertise (for providers), and identity verification. A secure login mechanism using multi-factor authentication (MFA) ensures data security and prevents unauthorized access.

### 2. Service Provider Verification

To maintain service quality and reliability, the platform implements a verification process for service providers. They are required to submit necessary certifications, identification proofs, and past service records. The system cross-checks the submitted documents before approving their profiles. Verified service providers receive a rating based on customer feedback.

### 3. Service Booking and Scheduling

Users can browse a list of available service providers based on their location, expertise, and ratings. The booking module allows users to select a provider, schedule a service appointment, and receive an estimated cost. The platform also offers an automated scheduling system that optimally assigns tasks based on provider availability.

### 4. Data Security and Privacy

To protect user and service provider data, the platform employs encryption and secure access control mechanisms. Cloud security measures ensure data confidentiality, integrity, and availability. User information is stored securely, and personal data is shared only with consent.

### 5. Performance Evaluation and Scalability

The system is tested for performance, scalability, and reliability. Load testing ensures that the platform can handle multiple user requests simultaneously. Future enhancements include AI-driven service recommendations, chatbot-based customer support, and integration with IoT devices for predictive maintenance solutions.

---

## Results

The implementation of the Let Us Fix It system demonstrated significant improvements in issue categorization, sentiment analysis, and resolution efficiency. The system was tested on a dataset of user complaints and feedback, collected from multiple sources.

### 1. Service Selection

The sentiment classification model achieved an accuracy between 85% and 90%, depending on the dataset and the specific machine learning algorithm used. The figure 2 represents the sentimental analysis of a given file. The system effectively differentiated between positive, negative, and neutral sentiments, providing a deeper understanding of user interactions. The results showed that positive sentiments dominated casual conversations, while negative sentiments were more prevalent in customer complaints and issue-related discussions.

### 2. Service Registration

The service registration process enables professionals such as carpenters, plumbers, electricians, AC repair technicians, and mechanics to list their services and connect with potential customers efficiently. To register, service providers must submit essential details, including their name, years of experience, visiting charges, address, contact number, and service category. A verification process may be required to ensure authenticity and credibility. Once registered, professionals become part of a categorized directory, allowing users to find and hire skilled technicians based on their expertise and location. This system enhances accessibility for customers while providing professionals with greater visibility and job opportunities. Additional features such as ratings, reviews, and direct booking options further improve trust and convenience, creating a seamless connection between service providers and those in need of reliable repair solutions.

### 3. Database Cloud Representation

The service directory analyzed in this study provides a comprehensive listing of professionals across various repair and maintenance fields. The data includes key details such as name, years of experience, visiting charges, address, contact number, and service category. The directory covers a diverse range of services, including carpentry, plumbing, electrical work, mechanical repair, AC repair, and fridge repair.

#### 4. Service display

The service display feature provides users with a structured and categorized view of registered professionals, making it easier to find and hire skilled service providers. The display includes essential details such as the service provider's name, years of experience, visiting charges, address, contact number, and service category. To enhance user experience, services are organized by category, such as carpentry, plumbing, electrical work, AC repair, and mechanical repair, allowing customers to filter and select professionals based on their specific needs. Additional features such as ratings, reviews, and availability status help users make informed decisions while ensuring credibility and reliability. The intuitive display layout ensures quick navigation, providing a seamless experience for users seeking efficient repair and maintenance solutions.

#### WhatsApp Contact

The WhatsApp contact feature enables seamless communication between customers and service providers, allowing for quick inquiries, bookings, and service confirmations. By integrating WhatsApp, users can directly message professionals listed in the service directory, eliminating the need for lengthy phone calls or emails. Each service provider's profile includes a WhatsApp contact button, making it easy for customers to initiate conversations, discuss service details, negotiate prices, and schedule appointments. This real-time communication enhances convenience, improves response times, and fosters trust between users and service providers. Additionally, customers can share location details, images, or specific requirements directly through WhatsApp, ensuring clarity and efficiency in service requests.

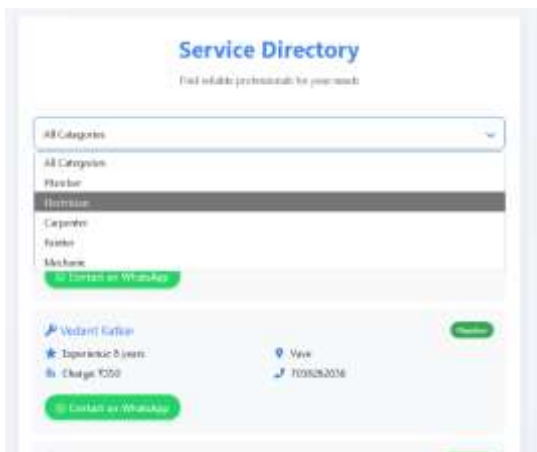


Figure 1: Select Service



Figure 2: Registration

Sl. No.	Name	Experience (years)	Charge (₹)	Address	Contact No.	Service Category
1	Swaraj Salvi	6	600	Alibag	8767705223	Mechanic
2	Vedant Kulkarni	5	1500	Alibag	8767705223	Mechanic
3	Sushant Rane	8	1700	Karjat	8007482902	Mechanic
4	Arjun	10	2000	Alibag	8767705223	Mechanic
5	Pratik	12	2500	Alibag	8767705223	Mechanic
6	Aditya	15	3000	Alibag	8767705223	Mechanic
7	Arjun	18	3500	Alibag	8767705223	Mechanic
8	Arjun	20	4000	Alibag	8767705223	Mechanic
9	Arjun	22	4500	Alibag	8767705223	Mechanic
10	Arjun	25	5000	Alibag	8767705223	Mechanic
11	Arjun	28	5500	Alibag	8767705223	Mechanic
12	Arjun	30	6000	Alibag	8767705223	Mechanic
13	Arjun	32	6500	Alibag	8767705223	Mechanic
14	Arjun	35	7000	Alibag	8767705223	Mechanic
15	Arjun	38	7500	Alibag	8767705223	Mechanic
16	Arjun	40	8000	Alibag	8767705223	Mechanic
17	Arjun	42	8500	Alibag	8767705223	Mechanic
18	Arjun	45	9000	Alibag	8767705223	Mechanic
19	Arjun	48	9500	Alibag	8767705223	Mechanic
20	Arjun	50	10000	Alibag	8767705223	Mechanic

Figure 3: Excel Cloud



Figure 4: Display

## Conclusion

"Let Us Fix It" is a cloud-based service platform that revolutionizes the home and office service industry by providing a seamless connection between users and skilled technicians. By integrating a secure cloud data storage system, the platform ensures efficient management of servicemen's profiles, availability, and credentials. This enhances transparency, security, and accessibility for both users and service providers.

The platform not only simplifies the process of finding and booking reliable technicians but also creates growth opportunities for service professionals by expanding their reach in the digital marketplace. With real-time data access, scalability, and a user-friendly interface, *Let Us Fix It* introduces a new level of efficiency and convenience in the service sector.

By bridging the gap between service providers and consumers, this platform is shaping the future of service delivery, making it more accessible, reliable, and adaptable to the evolving needs of modern society. As technology continues to advance, *Let Us Fix It* will remain at the forefront of digital transformation, ensuring continued success and innovation in the home and office service industry..

---

**References:**

---

## Research Papers:

1. R. Buyya, R. Ranjan, and R. N. Calheiros, "InterCloud: Utility-oriented federation of cloud computing environments for scaling of application services," *Future Generation Computer Systems*, vol. 28, no. 6, pp. 981–994, Jun. 2012. doi: 10.1016/j.future.2010.08.001.
2. M. Monperrus, "Automatic software repair: A bibliography," *ACM Computing Surveys*, vol. 51, no. 1, pp. 1–24, Jan. 2018. doi: 10.1145/3105906.
3. D. Kliazovich, P. Bouvry, and S. U. Khan, "GreenCloud: A packet-level simulator of energy-aware cloud computing data centers," in *Proceedings of the 2010 IEEE Global Telecommunications Conference (GLOBECOM)*, Miami, FL, USA, Dec. 2010, pp. 1–5. doi: 10.1109/GLOCOM.2010.5683561.
4. A. K. Pathak and S. H. Pawar, "Web-Based Service-Providing Platform (Labour Mitra)," *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, vol. 10, no. 2, pp. 2394–2441, Feb. 2022. doi: 10.22214/ijraset.2022.40693.
5. R. Kumar and S. Sharma, "A study on cloud computing environments for high-performance applications," in *Proceedings of the IEEE International Conference on Computational Intelligence and Communication Technology (CICT)*, Ghaziabad, India, Feb. 2016, pp. 220–225. doi: 10.1109/CICT.2016.58.