

# A Web Based Application For Home Services

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**Abstract:** In present scenario, people are wrapped up in a heavy work culture, as everyone is engaged with hectic tasks, and busy schedules 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. In such circumstances, 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 labor for home service. In such situation, E-Commerce plays a vital role. People find it more convenient to book services online from the comfort of their homes than going out to find someone to do the same. So, giving a thought to that aspect of life we have designed and developed a web-based application for home services that provides many services at your doorstep in just one click by connecting service providers directly with the customers and cater to their home-service demands at their doorsteps. It's a platform that provides variety of service person like plumbers, movers and packers, repair persons, cleaners, electricians, painters, carpenters and many more. It is versatile as services can be booked from everywhere to anywhere you desire.

## I. INTRODUCTION

In this era of technology with the increasing boom in E-Commerce and fast lifestyle, there is huge demand for providing household services in offline mode through online interactions. When someone requires assistance with small but major domestic tasks, the problem arises due to inaccessibility of skilled person or unavailability of trustworthy providers who provides flawless service on request. So hereby, we as a team designed and developed with the concern to provide the most expedient and annoys free way to get their domestic work done. It helps customer to hire workers for all their service needs such as Beauty and Wellness, Home Maintenance, Repairs, Home Care and Design etc. It is a platform to connect customers with young, hardworking, skilful in-house professionals working tirelessly to make a difference in the lives of people by catering to their service needs at their doorstep. This technique helps in providing optimal solutions and finest results to all or any domestic troubles with high efficacy, ease and majorly, a delicate touch. This application would become a medium for the customers and the vendors to interact with one another and benefiting each other through it. This home service system aids not only the customers but also the service providers to succeed in reaching out to potential customers. The main objective of this application is to provide the house services just by one click.

## II. RELATED WORK

**Web Application Based On Demand Home Service System: 2020 6<sup>th</sup> International Conference on Advanced Computing and Communication Systems (ICACCCS):** The author describes that there are many online home service systems in existence which are discussed briefly in this section. Urban Pro is the framework which initially began their online help for connecting the scholars with the mentors, trainers and institutes. This was one among the explanations for the emerging of providing the web domestic services given by the authors. Author also adds upon to it by saying that the, House Joy has been the fastest growing and the top players in offering home services. House Joy also offers perks to its employees and customers like free insurance and free re-work which have created a loyal customer base for them. Author also specifies that, It can hire professionals for home cleaning, pest control, painting, carpentry, plumbing, and fix appliances and electrical elements.

**AtDoorStep: An Innovative Online Application for Household Services: Journal of Xi'an University of Architecture and Technology. ISSN No: 1006-7930:** The author describes that the driven by market demand, in-house cleaning, furniture and application repair are now more popular than ever. People are using and engaging more into these door step services. This is a perfect solution for all those who want home maintenance and home care help or any other assistance with a single click. . They created a website and an app Android Solvotech for the arrangement of helpers approachable in consumer's region. Amit Saha in his study suggested that more services should be made available to the clients to win and gain their trust to build upon a loyalty that would benefit and ensure steady sales in the future. They also provide auxiliary training and counseling for bridging any gap that subsists in their services. Hence author thinks that, Helper is a one-stop solution. One can opt for cleaning services ranging from kitchen cleaning, sofa and carpet cleaning to deep cleaning accordingly. As per the author's note, the platform have also provided the pest control, painting, computer maintenance and much more.



**Survey on Home Service Provider: International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 06 Issue: 12 | Dec 2019:** The author describes widely about the survey on home service provider by saying- 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, there comes the trustworthy platform for providing the quality service providers into picture. Customer's 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 as per the author. Keeping this in sense, the author and team have presented the proposed system which 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.

**On-Demand Service System Using SOA: 2022 IJCRT | Volume 10, Issue 6 June 2022 | ISSN: 2320-2882 International Journal of Creative Research Thoughts (IJCRT):** The author describes about the home service systems and service-oriented architecture by extending the existing Urban Company which is also known as Urban Clap, which is an app-based service marketplace that connects the users to service professionals. Similarly the author also aim to connect maximum people to their platform which will benefit many individuals. In this fast-paced life, Urban Company aims to deliver necessary services to the customers at their doorsteps with a single mouse click. The company has also introduced contact less payment method where the customer can pay through online payment gateways.

**Website for Home Service Provider: June 2023| IJIRT | Volume 10 Issue 1 | ISSN: 2349-6002:** As per the author's description, a well-organized mobile environment for clients of a system provides convenience in accessing services and can comfortably enhance the overall user experience. So the supreme goal of online systems for domestic services is to provide home services to the doorstep with a single touch. Here the author's focus is on providing a variety of services with symphony and an organized manner. Any verified user trying to get served through the website can use the online system for home services as per the paper review.

**Homezilla - A Home Service Web Application: International Research Journal of Modernization in Engineering Technology and Science. Volume: 05/Issue:03/March-2023 Impact Factor- 7.868. e-ISSN: 2582-5208:** The author says that we've seen a lot of issues that arise in our daily lives, including the issue with electricity. If the power goes out, we face a lot of issues at work, such being unable to charge our phones or use our kitchen's electric appliances, among other things. According to the author, the entire procedure is offline under the current system, therefore customers cannot receive the right assistance. The consumer cannot get a solution at any time because the current system is not available around-the-clock. In the case of plumbing issue, First, one needs to make a call to the plumber to schedule an appointment if one is available, or can go straight to him to schedule the appointment.

**A Review on On-Demand Home Service Using Android Studio: Vol-9 Issue-3 2023 IJARIE-ISSN(O)-2395-4396:** According to the author, the Urban Pro is the framework which initially began their online help for connecting the scholars with the mentors, trainers, and institutes. This was one among the explanations for the emerging of providing the web domestic services. Time saverz is one among the web home service system where the customer has given rewards for the services offered and a refund if the customer isn't satisfied with the services. This service is provided in Delhi, Noida, Gurgaon, Hyderabad, Bangalore, Pune, Mumbai, and Chennai.

**An Online System for Household Services: International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Published by, www.ijert.org NCESC - 2018 Conference Proceedings:** According to the vast description of the author in the paper[8] on the topic of an Online System for Household Services; 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. That is the main reason that there is requirement of some trustworthy online platform for the on demand and online service provider platform in today's day to day life for its smooth going.

[9] The distributed computing systems become more and more important in the new world dominated by the Information Technologies. This has resulted in recent standardization effort of distributed computing architecture, which is known as Service Oriented Architecture (SOA). The main component of this architecture is the Web Service. Some of the challenges in implementing the SOA architecture are maintainability, reliability, and security. An application built on web services architecture can have several roles; it can be both the consumer and the service provider or just register whose role is to keep the web service description. The Service Provider is the person or organization that provides access to a web service in order to meet certain requirements.

[10] Mobile devices used for communication between people only for speaking people in the past but today one of the most personal kind devices in the cloud environment. The environment is expanding day by day via accessibility connecting internet with devices. The device can be any kind of device if it has the ability working with web. The transaction should be with sending and receiving messages. Mobile devices can connect the cloud also. This article aims answering the question “Is cloud environment server its system equally for any kind of mobile devices which has different operation system?”, throttling mechanism for mobile world which has the devices with multiple cores and push services for mobile devices. In this paper, will be discussed two mobile operations, which are Windows Phone and Android because of comparison of open source and secret sauce.

[11] E-services are services delivered over the Internet. Such services have different properties and dimensions, e.g. targeting different sectors, being accessible through different channels, or intended for frequent or infrequent use. Throughout this article the authors address e-services from a mobility perspective. Definitions of e-services vary (and will be discussed in the next section of this paper), but a central component is the delivery of services through the Internet (e.g. Rowley, 2006). E-services are used to automate customer and citizen relationships, deliver and manage information, and have in many ways transformed markets and competition in supporting new value chains and structures (e.g. Lu, 2001; Sharma, 2007).

[12] In a first part, this paper revisits the current technologies, mostly SMS, used in the mentioned success stories, and their abilities to scale well. In a second part, we present the strength of Web technologies, the challenges specific to this context, and the way to address them. In the last part, we introduce a potential program W3C may start to help enabling the next generation of Mobile Web applications for rural communities of the Developing World. On another hand, ICTs are also a great opportunity for the Developing World. Providing minimal services (Health, Education, Business, Government...) to rural communities and under-privileged populations is of major importance to improve people lives, and to sustain development. Using ICTs would be the easiest and possibly only way to develop and deploy those services.

### III. PROPOSED SYSTEM

In order to overcome the limitations in the existing system, we intend to develop a web application to assist the users in getting the essential services like plumbing, electronic repair, RO servicing, residential cleaning services, painting and electrical maintenance.

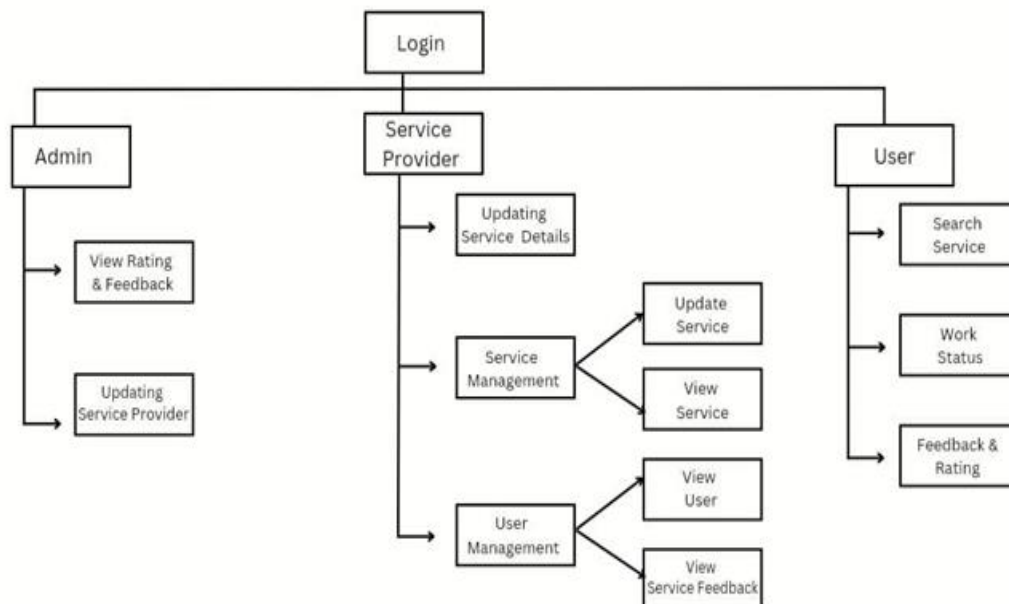


Fig.1 Block Diagram of Proposed Model

#### User Module

The customers who want to use the services are requested to register with this application by providing some basic details like name, age, gender, address, mobile number and email-id. Later, the user can just login by providing their username and password to avail the required services. This application displays a list of service providers to the customers. Customers can book a service and send request along with a notification to the service providers.

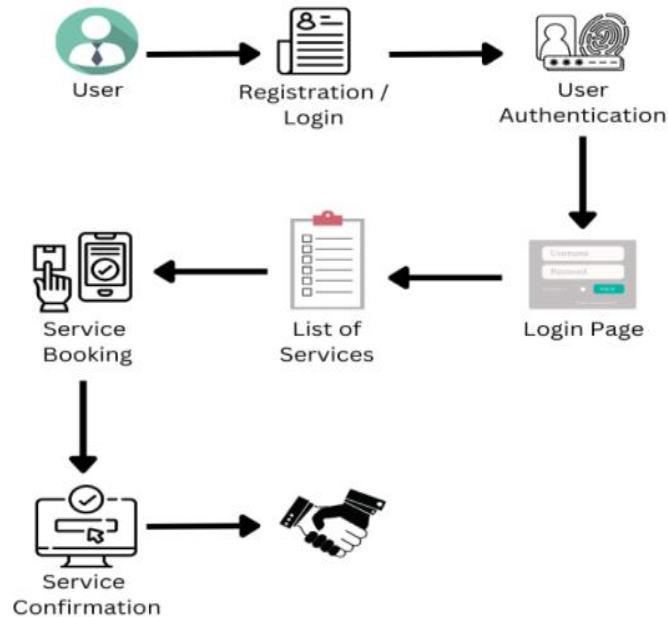


Fig.2 Workflow of User Module

### Service Provider Module

Service providers can register with this application and are requested to add their service details. Once the notification of the service request from the customer is triggered at the service provider end, he can accept or reject the request by logging into the application.

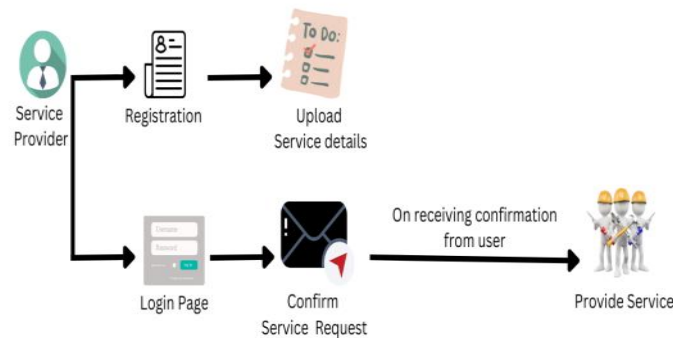


Fig.3 Workflow of Service Provider Module

### Admin Module

The customer can post their grievances, feedbacks and reviews regarding the offered services. The reviews that are posted can be viewed by the admin by logging into the application and the necessary actions can be taken over the complaints like removing the service provider from the application.

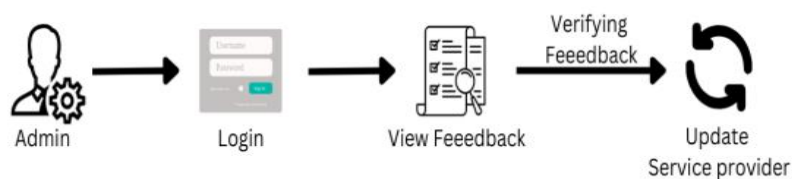


Fig.4 Workflow of Admin Module

## IV. METHODOLOGY

The client side (Frontend) has three components: Users, Service Providers, Admin Panel. All the components are built using ReactJs. ReactJs is a free and open-source front-end JavaScript library for building user interfaces based on components. React can be used to develop single-page, mobile, or server-rendered applications with frameworks like Next.js. Users can book services offered by service providers. These services range from home repairs to packers and movers. The users will be provided with a modern UI to book services with the most competitive price. Service Providers can create services in their desired categories and offer them to clients. Admins can control and manage both users and service providers and solve any issues that may arise. The server side or backend are built with FastAPI which is a modern web framework for building RESTful APIs in Python. It handles various tasks such as authentication and authorization and handling HTTP requests to serve data to users, service providers and admin. It uses MongoDB as the database. The backend uses motor, an asynchronous python driver for MongoDB to interact with the database. Authentication is done using JSON Web Tokens (JWT). It is a proposed Internet standard for creating data with optional signature and/or optional encryption whose payload holds JSON that asserts some number of claims. The tokens will be signed either using a private secret or a public/private key.

## V. RESULTS and DISCUSSIONS

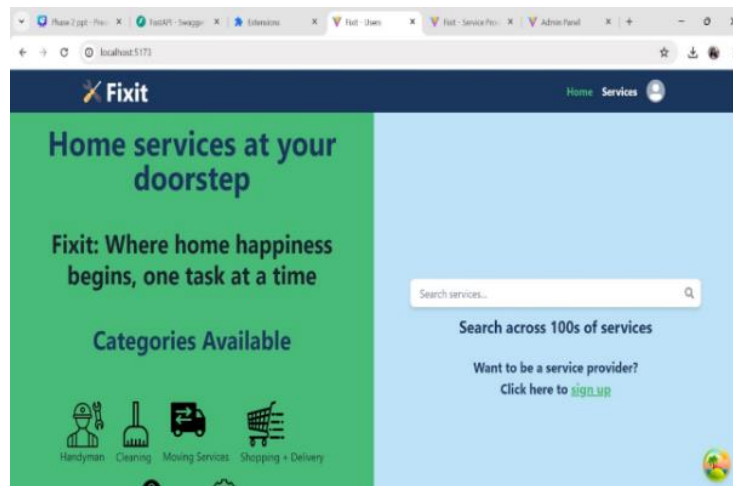


Fig.5 Snapshot of Homepage of our application

The above figure depicts the **Home page** of our application, triggered at the user end, where user needs to login and we can find the list of available service categories and can also search for one.

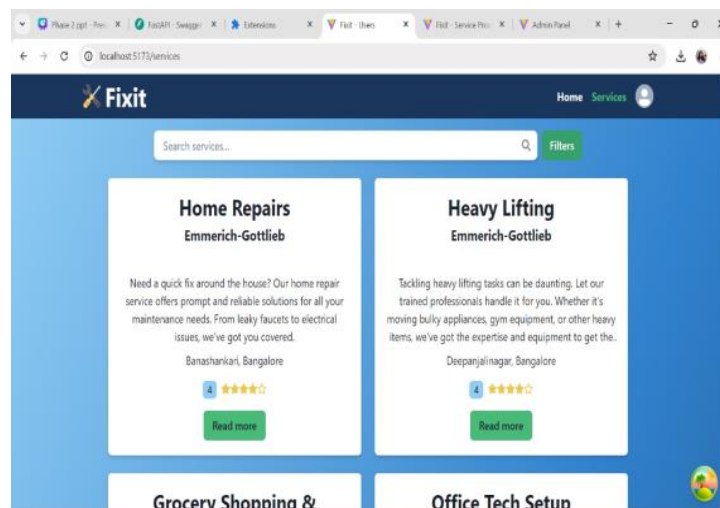
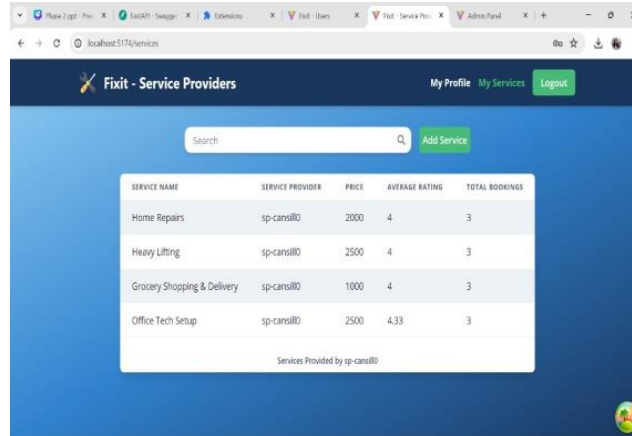


Fig.6 Snapshot of Service List



The above picture shows the list of **Services** available for the customer at the user end. By clicking on read more option, one can know the detailed information of the service including brief service description, price, reviews and ratings etc.

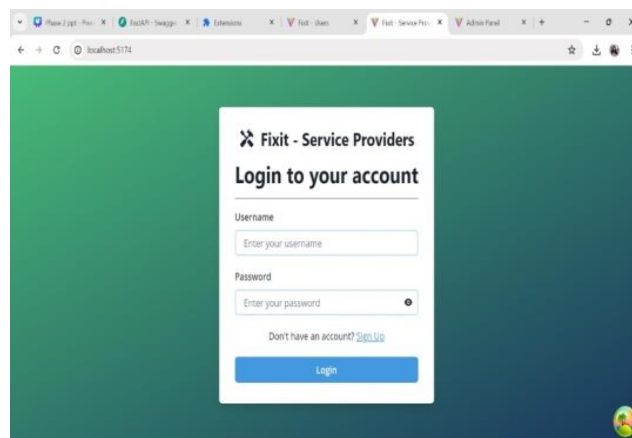


SERVICE NAME	SERVICE PROVIDER	PRICE	AVERAGE RATING	TOTAL BOOKINGS
Home Repairs	sp-cars800	2000	4	3
Heavy Lifting	sp-cars800	2500	4	3
Grocery Shopping & Delivery	sp-cars800	1000	4	3
Office Tech Setup	sp-cars800	2500	4.33	3

Services Provided by sp-cars800

Fig.7 Snapshot of Admin module View

In the above figure, Admin module consists of four division dashboard, users, service providers, and services and there a unique authentication for each admins to login separately.



Fixit - Service Providers  
Login to your account

Username  
Enter your username

Password  
Enter your password

Don't have an account? [Sign Up](#)

Login

Fig.8 Snapshot of Service Providers login page

The above snapshot depicts the login page of the service provider; where he/she can use their login credentials to login. If they are the new users as a service providers, they can sign up by creating their new username, password and other service details.

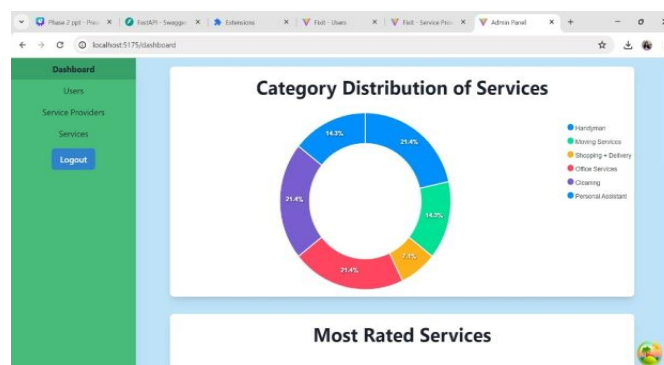


Fig.9 Snapshot of Service Providers services list

The above picture gives the overview of the service provider's profile of the work data. The services he is offering, prices allotted, average rating and the total bookings he has considered so far for that particular service; All these data are displayed.

## VI. CONCLUSION

In today's fast-growing world, *Fixit* will help in reducing the burden of the customers by taking care of their basic house needs and services. It would behave as a platform to search for and get connected to the most reliable, trustworthy and skilled laborers for their in-house services. *Fixit* will help the workers, small businessman, retailers, etc... to adapt to the changing trend of technology and not be at loss or behind in any way. It is a small step towards reducing unemployment. The proposed system provides wide ranging services at the customer's doorstep. A systematic environment to system clients offers ease in accessing the services in a more comfortable way. The framework is made such that both the customer as well as the worker (not highly educated) can easily understand and face no problem while using the app. Unlike the other application, our system consists of the chat bot which helps the users to clarify the queries posted. Thus, our system appears to be livelier than the prevailing system.

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