



A Smart Online System For Home Services

M. Madhumathi¹, Ms. Priyadharshini²

¹ III B.Sc.CS, Department of Computer Science, Sri Krishna Adithya College of Arts & Science, Coimbatore.

² Assistant Professor, Department of Computer Science, Sri Krishna Adithya College of Arts & Science, Coimbatore.

ABSTRACT :

In the present scenario, people are buried 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. In such circumstances, every one of us would have fantasized about a kind of house which doesn't have any leaks in pipes, if it doesn't have any mess in fixing a furniture and a kind of house which never face any maintenance issues and 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 doorstep and if there is no mess in bargaining a labor for home service. In such situation's E-Commerce plays a vital role in today's life as it has so many advantages in our life because it makes it convenient in the daily life of the people.

So, giving a thought to that aspect of life is to design and develop a system that provides many services at your doorstep in just one click. A System that provides a variety of services like plumbers, movers and packers, repair persons, cleaners, electricians, painters, taxi service laundry and many more. A very simple process is carried out to book a service(s), and our system is specialized with providing a confirmation email about the selected service. People can choose the particularity of service required by uploading the image of desired specification. System is versatile as service can be booked from everywhere to anywhere you desire. This system provides a one-stop online platform for booking various household services, including plumbing, cleaning, repairs, and more. Users can easily access services through a web portal and receive confirmation emails. The goal is to simplify life for busy individuals by providing convenient access to essential services, promoting a better work-life balance. To make it comfortable for all the users our system also provides a mobile environment which offers ease in accessing our services. User-friendly interface and secure payment system, users can book services conveniently, receive real-time updates, and review service providers.

INTRODUCTION :

When someone needs 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 deliver consistently flawless service on instance. Our online system for household services provides the most expedient and annoying free way to get your domestic work done. We aim to help in providing optimal solutions to all your household troubles with more efficiency, ease and majorly, a delicate touch. A single click system describes booking highly skilled in-house professionals and gets your service done on time. Customers' 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. Keeping that in sense our proposed system is basically a marketplace for household services and it is the platform where the rates were standardized and there is no need to haggle over prices. Several aspects like painting, pest control, home cleaning, plumbing, electrical works and carpentry services are involved in a system to provide a happy and healthy home atmosphere in order to satisfy consumers.

OBJECTIVES

The primary objective of the online system for household services is about delivering the home services at the doorstep just by one click. This paper discusses the main theme of the online home services, numerous services provided and how the ordering and delivery of services takes place. Online system for household services can be used by any authorized user intending to seek for household services through an ingenious web based system or a mobile application. To provide an authenticated and authorized login module for the users such as service seekers, service providers and the admin, by providing appropriate credentials at the time of registration. To develop a web based online system for opting household services and to develop an identical mobile application for opting the services. To design an interactive User Interface for seeking services on the go. To provide a secured online payment gateway for service seekers. To acknowledge the confirmation of services opted by the users.

II. LITERATURE STUDY :

The rise of e-commerce and the growth of online services have shown a significant effect on the market share. People are operating and engaging more into doorstep services. Below are materials from various researchers who have worked in this field:

K. Aravindhana and team [1] proposed an online homeservices system. Feature which makes this system different from other systems is “chatbot” which helps the users to clarify the queries posted. The purpose was to obtain the service providers detailed information which helps customers to get their services fulfilled instantly.

Neale A. Dagdag and team [2] presented a mobile application (android device). Here the main goal was finding work opportunities for skilled workers. The skilled workers will get coupled with customers who need service such as: electrical service, plumbing service, automotive repair, and other similar services which can be provided at the customer's respective home. The main revenue will get generated from commissions and quarterly membership fee from the skilled workers. Additionally, from advertisers and/or companies who wish to tie-up with a team of At-Your-Service mobile applications.

N. M. Indravan [4] in his study observed that people are very much in their heavy work culture. In the busy schedule if any unexpected household task pops up. That distracts them from their work. E-Commerce plays a primary role in solving this issue. Creating a platform that can provide a number of services in one click. For verifying the customers on platform authors went with email verification.

Drawbacks

FRAGMENTED OFFERINGS

Existing solutions often lack a centralized platform for household services.

INEFFICIENT BOOKING

Outdated booking process that are time consuming and inconvenient.

LIMITED TRANSPARENCY

Lack of reliable information about service providers and their capabilities.

POOR CUSTOMER EXPERIENCE

Dissatisfaction with the overall service quality and reliability.

INCONVENIENT BOOKING

Tedious and time consuming booking process, often requiring multiple phone calls.

LIMITED CHOICES

Restricted selection of service providers, limiting customer options and flexibility.

LACK OF TRANSPARENCY

Insufficient information about service quality, pricing, and customer reviews.

III. DEVELOPMENT OF ONLINE SYSTEM FOR HOUSEHOLD SERVICES :

The system provides services like gas services, plumbing services and electrical services. Users can view the services through the system and they can contact the actual providers to urge the services. The user has to register to utilize the service that's provided by the system. The system acts as the intermediary between the user who is in need of services and therefore the provider who offers the service. Within the present system, the users can only ready to get the small print about the service providers they are doing not have the choice to register for the services required and therefore the tracking of such services. Once the user specifies his request for service, the users' location is fetched using GPS (Global Positioning System) that fetches the latitude and longitude. Based on his current location, the application will try to find out the nearest service provider by fetching the latitude and longitude of the service provider, and then the nearest service provider is allotted to the requested user by sending SMS (Short Message Service), to cater the user's request. Users can give feedback about the services that were provided to them. The existing system is available only in one language that is English and thus it is difficult for some people to use the application.

Proposed system:-

The proposed system is a web application developed using Flutter as front end and Firebase as backend to assist the users in getting the essential services like plumbing, electrician, carpenter, plumber and site worker. Any user who is either a customer or service provider can register with this website. User can register with this website by providing the basic details like name, age, gender, address, mobile number and mail id. Along with the basic details the service provider needs to fill up some extra fields such as Aadhar card no service they provide. Once the user fills all the fields an OTP is generated and used for account verification. After this they can login by providing their username and password to avail the needed services. User can look for a service provider by mentioning the location. Once the user needs a particular service, they can place a request. After placing the request, the user is directed to the payment module of the system. Then the confirmation of the request is received by the user as well as by the service provider. The user can post their grievances and feedback about the offered services.

The reviews that are posted by the customers help to rate the service providers can be viewed by the admin and the necessary actions can be taken over any complaints. The system consists of login for user, service provider and admin. When the user logs in with his credentials, they are able to search the

service and retrieve it from the database. When the service provider logs in with their credentials, they can able to view the request and edit their respective profiles. Once the service is added it is stored into the database and it can be retrieved when the service wants to be viewed. The admin is responsible for managing all the data related to the services and has the right to edit or delete any of the information that is against the policy of our application.

IV. MODULE DESCRIPTION :-

1) Registration Module

The user who wants to avail our services will have to register to our application. The user can register itself as customer or labor based upon its need. Once all the required details and credentials are provided, an OTP will get generated and your account will henceforth get verified. Now the user has successfully created their account and is free to use our services. Each time the user has to use the application they have to login to the application using a valid username and password.

2) Admin Module

The functionality of this module is basically related to the admin. The admin is responsible for managing all the data related to the services and has the right to edit or delete any of the information that is against the policy of our application. This module is managed by the Firebase console.

3) Service Module

When a customer wants to access the service, they can do it by logging in to their account. The application has a very interactive and easy to understand user interface. The customer can easily search for the service they are looking for through various categories of services. Further they can scroll between their choice of service and get recommendations as to which labor is near to the user's area and which one has a better feedback.

4) Payment Module

Once the customer finds an appropriate service provider that they are looking for they had to place a request for the service where the customer needs to pay for the services opted. Various options are available through which one can do the payment. It is done through an external payment gateway which guarantees a secure and safe transaction. After the payment is done, a confirmation acknowledgement is forwarded to the user about all the details of services opted.

5) Feedback Module

Once the service is completed our customers are requested to rate the overall service done by the service provider and asked for any valuable feedback or improvements to be done in providing a better service. Based on this feedback the application rates the service providers.

The idea proposed in this paper is one among the new innovations where it reduces the trouble for customers to search for the labor and to get the profitable services to be done.

V. RESULT AND DISCUSSION :-

The online household services application provides some of the home services which are most frequently used. This system accommodates the changing needs of the end user. The overall system can be designed so that its capacity can be increased in response to the further requirements for which the application provides an appropriate service overseas. Further this application can be prolonged by merely adding up the required services and additional payment systems. For example, the current system provides the following services such as home painting, home cleaning, packers and movers, plumber repair and service further the system can be extended as per the requirements of the user. The system can have prolonged by adding the services such as mobile and computer repair, laundry services, catering services and many more. The discussion payment methods our system has, for example currently system has online payment by only MasterCard users.

VI. CONCLUSION AND FUTURE ENHANCEMENT:-

The online household services application provides some of the home services which are most frequently used. This system accommodates the changing needs of the end user. The overall system can be designed so that its capacity can be increased in response to the further requirements for which the application provides an appropriate service overseas. Further this application can be prolonged by merely adding up the required services and additional payment systems. For example, the current system provides the following services such as home painting, home cleaning, packers and movers, plumber repair and service further the system can be extended as per the requirements of the user. The system can be prolonged by adding the services such as mobile and computer repair, laundry services, catering services and many more. The discussion payment methods our system has, for example currently system has online payment by only MasterCard users further it can be extended by adding the payment services for visa users also.

VII. REFERENCES:-

Here is a concise summary of the references:

- [1]. K.Aravindhan, K.Periyakarupam, T.S Anusa, S.Kousika, A.Lakshmi Priya, “Web Application Based On Demand HHome Service System”6th International Conference on Advanced Computing And Communication Systems (ICACCS) ,2020.
- [2]. N.M. Indravan, Adarsh G, Shruthi C, Shanthi K, “An Online System for Household Services” International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, May 2018.
- [3]. Sheetal Bandekar, Avril D’Silva, “Domestic Android Application for Home Services” International Journal of Computer Applications, ISSN No.0975 – 8887, Volume 148 – No.6, August 2016.
- [4]. Shahrzad Shahriari, Mohammadreza Shahriari, Saeid gheiji, “Ecommerce and It Impactson Global Trend and Market” International Journal of Research – Granthaalayah. Vol.3 (Iss.4): April 2015
- [5]. Taein Hwang, Hojin Park, Jin Wook Chung, “Design and Implementation of the Home Service Delivery and Management System Based on OSGi Platform”, IEEE 2006.
- [6]. Nikam Poonam, Gunjal Trupti, Jadhav Priti, Parakhe Sonali, Prachi Tambe, “Survey on Home Provider” InternationalResearch Journal of Engineering and Technology (IRJET) December 2019.
- [7]. Zhang Fuyan, Teng Yingyan, “Design and Realization of Household Service Robot Based on STM32 and Server” International Conference on Robots and Intelligent System, 2017.
- [8]. Chang-Xing Qi, Qing-Dong Du,Hong-Wei Wang,“Construction of Provincial Labor and Social Security Customer Service System” International Conference On Computer Design And Appliations, 2010.
- [9]. Neale A. Dagdag , Almar Allan F. De Guzman, Rowena V. Pamplega, Grace Lorraine D. Intal, “ At-Your-Service Mobile Application: E-Hub forSkilled Workers”IEEE 6th International Conference on Industrial Engineering and Application,2019.
- [10].Shurong Wang, “The Architecture Design of Migrant Labors Training Employment Information Platform” IEEE 6 International
- [11].S Rachitha, Sanjana Sathish, Shruthi S, Vismitha,Ambika V, “Web based System for Domestic Services”,IJRECE VOL. 7 ISSUE 2 (APRIL-JUNE 2019)
- [12]. Bo Zhang, Ruihan Yong, Meizi Li, Jianguo Pan, Jifeng Huanglaa, “A Hybrid Trust Evaluation Framework for E-commerce in Online Social Network:” 2169-3536, IEEE. Translations and content mining are permitted for academic research.