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Web-Enabled Home Support System

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***Abstract*— People are currently engaged in a heavy work culture as a result of everyone's hectic schedules and demanding jobs, which cause them to neglect their personal lives. Managing both your work and personal lives is crucial. In order to address that, a web-enabled system that delivers a variety of household services to your door with a single click was designed and developed. A system that offers a range of domestic services, such as housekeeping, child care, driver assistance, cooking, and elder care. The flexibility of a web-enable system allows you to book services from anywhere to wherever you choose. It is a general platform that enables two-way communication between service providers and customers, which can avoid the laborious efforts involved in finding the best service provider and guarantee the service provider's intended work. Using a web-based approach, customers can eventually receive superior domestic services thanks to a grading system that is feedback-based.**

Keywords*— *Web-Enable System, Domestic Services, Service Provider, Customers, Online Services.

I. INTRODUCTION

In the current scenario, the usage of the computer and the internet are huge. It is easy to do work online compared to offline, and it saves more time. People are busy with their schedule and work, it's tough for them to maintain and repair their homes. In case any issue is encountered, it becomes a hectic problem for them to resolve. For this situation, they require a professional who is confidential to repair, maintain their home, but it's a massive task for them to find a trusted professional offline. In offline mode, the professional can charge high, and the work may delay. To help people from coming out with this kind of issue, this website that offers all types Domestic Services works for the customer with professional workers.

A single click made the users bring the professional to the doorstep. The cost of the workers is pre-defined; hence people can pay what they get. For proper work, the workers must be professional, and it is mandatory to check if the workers are professional. The professionals are verified by the admin for safety of the people. It also provides a tremendous opportunity and pays for the professional. 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 domestic services. To design an interactive user interface for seeking services on the go. To acknowledge the conformation of services opted by the users.

II. LITERATURE SURVEY

There are many online home service systems in existence which are discussed briefly in this section.

K. Aravindhan, K Periyakaruppan, TS Anusa, et.al suggested an An app-based service marketplace called Urban Company, sometimes known as Urban Clap, links users with service providers. They want to attract as many users as possible to their platform, which will help a lot of people. With a simple mouse click, Urban Company wants to provide consumers with the essential services they need at their doorsteps in today's fast-paced world. Additionally, the business has made available a contactless payment mechanism that allows customers to pay using online payment gateways. In 2014, Urban Company was established. At the moment, Urban Company is active in 30 major Indian cities[2].K. K. Agrawal and Tanya Goel proposed that there are already some current applications that are providing the same services to aid customers with their service needs and send their staff to customers' homes to solve the issues. However, as these businesses do not use workers from retail establishments or workers paid on a daily basis, this is useless to the labourers. AtDoorstep is an endeavour to eliminate any middlemen between the client and the employee/laborer since it is primarily concerned with this segment of society. The target market is global. Some applications provide a limited number of services dependent on the availability of their qualified staff[1].

Lixuewer, Fangjunru, et.al.proposed that the commodities could be delivered on time and in acceptable condition to the intended location . It is advised that e-commerce customers select a third-party logistics provider with expert service[3].The authors of this work, Taein Hwang and Hojin Park, proposed the digital home service delivery and management system

(DSM), which integrates the servers of the home service providers. The DSM's functional modules demonstrated how the service user may get home services from service providers via the DSM[5].N. M. Indravasan discovered that people are heavily invested in their work culture. If a sudden domestic duty arises in the midst of a hectic schedule. That keeps them from working. The main factor in resolving this issue is e-commerce. Building a platform that can do several services with a single click. Authors chose email verification for platform customer verification[6]. A method for online home services was proposed by K. Aravindhan. The "chatbot" feature that enables users to explain their posts is what distinguishes this system from others. The goal was to gather comprehensive information on service providers to enable customers to quickly receive the services they need[7].

The above literature highlights the importance of having a web-enabled home support system that can provide essential services to customers at their doorsteps. It also emphasizes the need for a platform that can connect laborers directly with clients and offer a wide range of services. These factors motivated the authors to propose a digital home service delivery and management system that can integrate multiple service providers and provide efficient services to customers.

III. METHODLOGY

The block diagram consists of three main blocks: user, front-end, and back-end. The user block represents the end-user who interacts with the front-end block, which is responsible for presenting the interface and collecting input. The back-end block handles the processing and storage of data, as well as the communication with external systems.

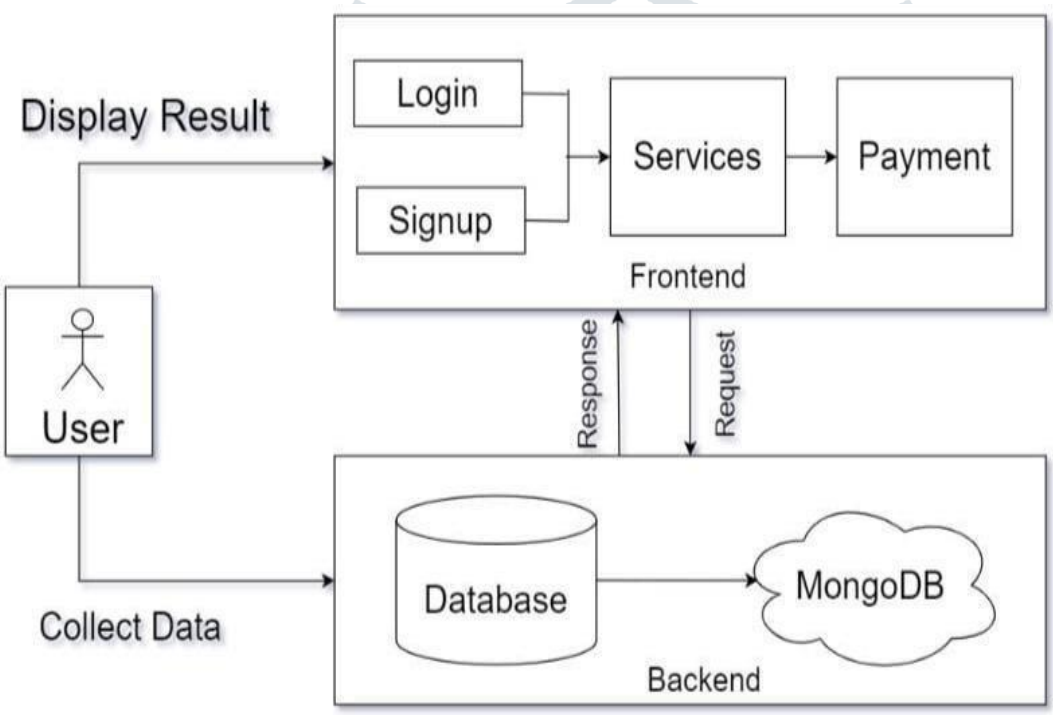

Fig.1 Block diagram of web-enabled home support system

In web development, the user interacts with the front-end of a website or application, which is the visible part of the website that the user sees and interacts with. It consists of the following components:

User website or mobile application, User authentication and authorization system, Service discovery and booking interface, Payment gateway integration. The front-end is built using programming languages such as HTML, CSS, and JavaScript, and it is responsible for displaying the user interface, handling user input, and communicating with the back-end. It includes the following components: User interface design and development, User experience and usability testing, Front end code development and maintenance, Integration with third-party services like payment gateways, notification services, etc. The back-end of a website or application is the part that is responsible for handling data storage, data processing, and server-side logic. It communicates with the front-end through APIs (Application Programming Interfaces). The back-end receives user input from the front-end, processes it, retrieves or stores data in a database, and then sends back a response to the front-end. The back end is the core of the system and manages all the business logic and data of the system. It includes the following components: Service management system, Service provider management system, Database management system, Payment processing system, Communication management system, Analytics and reporting system. Overall, this block diagram shows the three steps involved in a web-enabled home services system - the user interface, front end, and back end - and the various components that make up each step.

A. Flow Chart:

Flow chart of web-enabled home support system is shown in Fig 2. A flowchart is a visual representation of a process or algorithm. It uses various symbols and arrows to show the flow of steps or decisions in a sequence. Flowcharts are useful in

representing complex processes in a simple and easy-to-understand way, and can be used in a variety of fields including software development, engineering, and business management. By breaking down a process into smaller, more manageable steps, flowcharts can help identify areas for improvement and increase efficiency.

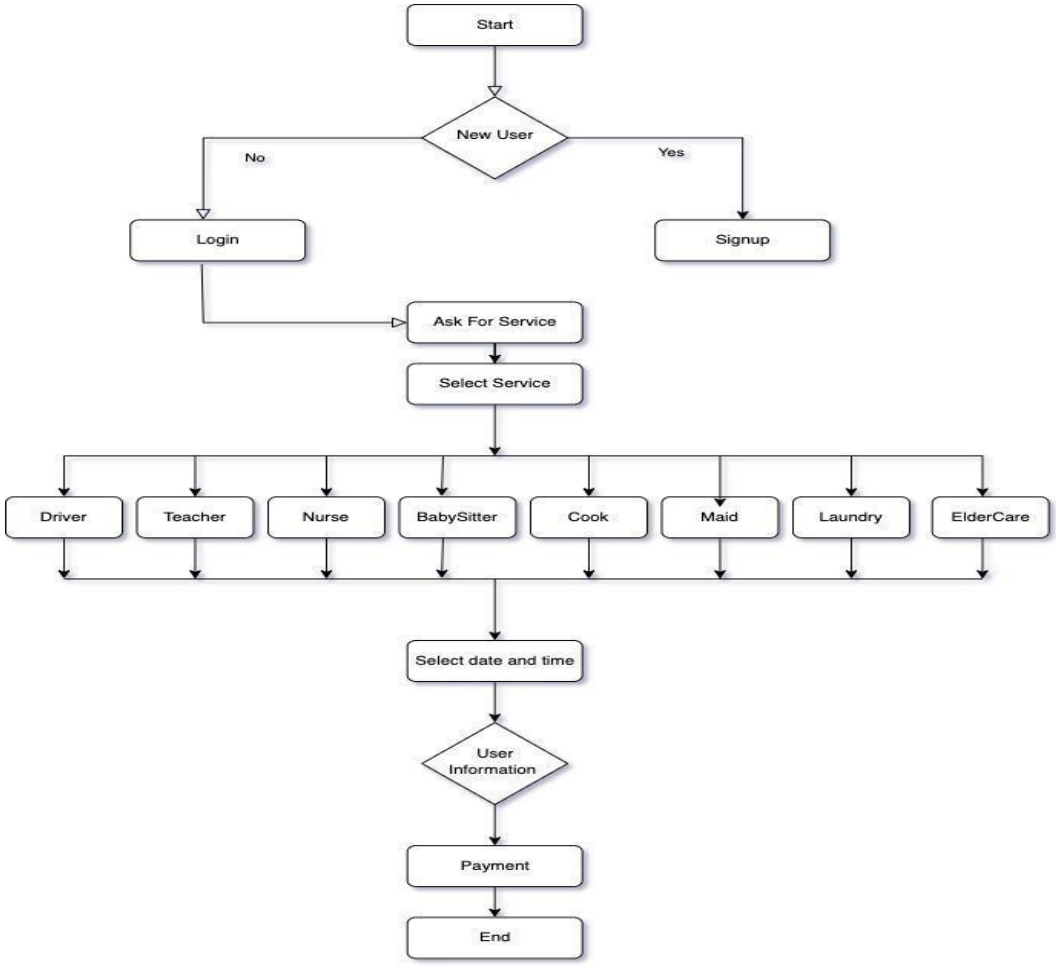

Fig.2 Flow chart of web-enabled home support system

The flowchart for a web-based system for domestic services would typically begin with a "start" symbol, followed by a decision point where the system determines if the user is a new or existing user. If the user is new, they will be prompted to either sign up or login. Once logged in, the user can then ask for services and select from a list of available services. After selecting the service, the user can then choose the date and time for the service to be performed. The user will then provide their information and make a payment either online or through cash on delivery. Finally, the system will confirm the booking and the process will end.

IV. EXPERIMENTAL RESULTS

A. Login Page:

Fig 3. Represents the login page of the web-enabled home support system on which one first needs to register and than can login to access further services.

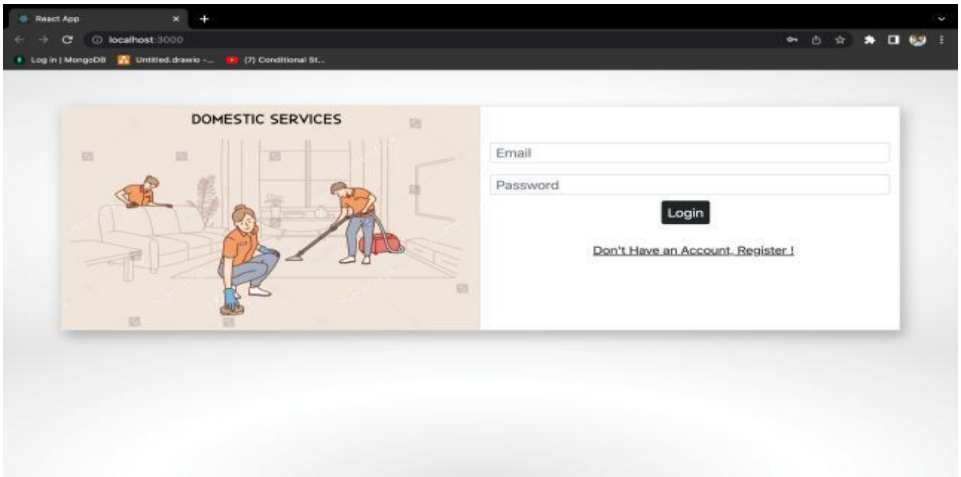

Fig.3 Login page of web-enabled home support system

Login and signup page is user-friendly, visually appealing, and have clear instructions. The page also ensure that users personal information is secure and protected and also user authentication is provided .

B. Home Page:

Fig 4. indicates the home page of the web-enabled home support system where different kinds of services are available to choose.

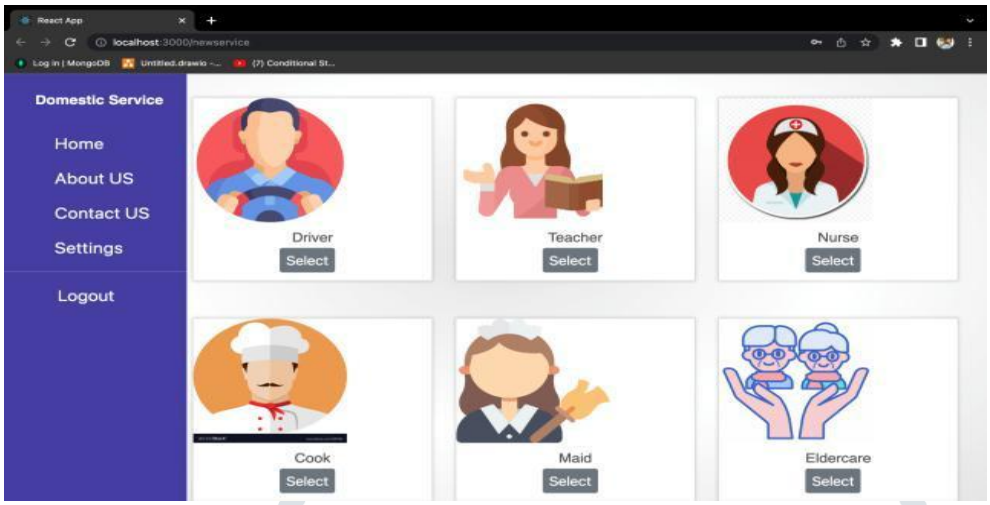

Fig.4. Home page of web-enabled home support system

From above fig.4. we can see that the home page of the website contains various services that most of the websites lack and are provided by this web-enabled home support system.

C. Booking Page:

Fig.5.indicates the booking page of the web-enabled home support system where one can book services from a particular date to another date and can make payment either online or through cash on delivery.

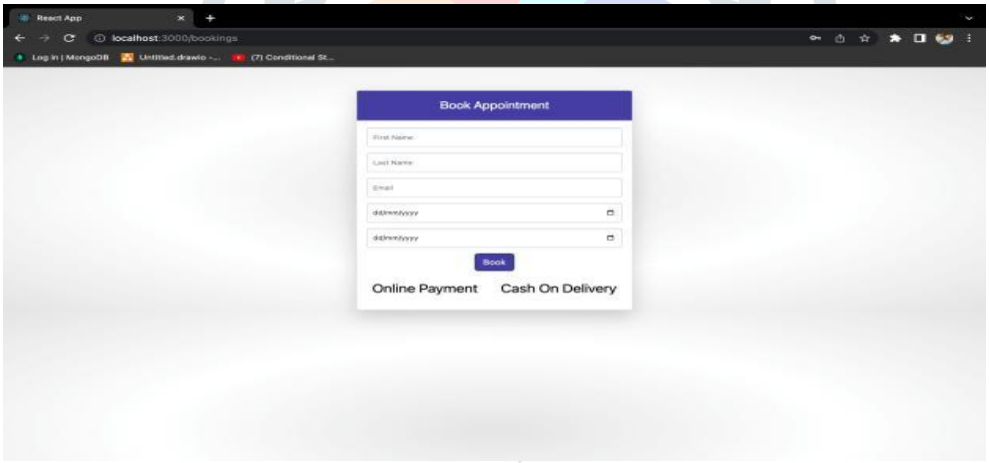

Fig.5. Booking page of web-enabled home support system

The booking page with online payment and cash on delivery options allows users to select their preferred payment method and provide them with clear instructions for completing the booking process. It also ensures that users payment information is secure and protected. Additionally, the page provides users with information about the cost.

V. Conclusions And Future Scope

The web-based system for domestic services provides a convenient and reliable solution for managing household needs. By offering a wide range of services with qualified and background-checked professionals, the platform streamlines the process of finding and booking domestic services. The structured mobile environment for system clients enables easy access to services from anywhere and at any time. With the system's efficient and user-friendly features, finding in-house solutions for services has never been easier. The platform provides a hassle-free solution for busy professionals, elderly people, and anyone looking for a more efficient and convenient way to manage their home.

The potential developments in web-enabled home care services outlined above highlight the significant growth opportunities for the platform. As more people become aware of the convenience and reliability of these services, the user base is likely to increase, particularly among busy professionals and elderly people. The platform can continue to improve its functionality, offering more comprehensive solutions for household management, and integrating with smart home technology to enhance convenience and efficiency. Advanced analytics can provide personalized solutions for users,

improving the overall user experience. The potential for expansion into other markets such as commercial cleaning or maintenance services for small businesses further highlights the platform's potential for growth and innovation. With technology continuing to advance, the future of web-based domestic services looks bright.

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REFERENCES

[1] K. K. Agrawal, Tanya Goel, "AtDoorStep: An Innovative Online Application for Household Services"vol 1
4, pp 4370-4375, 2020.

[2] K. Aravindhan, K. Periyakaruppan, T. S. Anusa, S. Kousika and A. L. Priya, "Web Application Based On D
Home Service System," *2020 6th International Conference on Advanced Computing and Communication S
(ICACCS)*, Coimbatore, India, 2020, pp. 1458-1462, doi: 10.1109/ICACCS48705.2020.9074284.

[3] J. Fang, X. Li and X. Li, "Research on the Impact of Online Shopping Express Service Quality on Cu
Satisfaction Based on Management Statistics," *2020 International Conference on E-Commerce and I
Technology (ECIT)*, Zhangjiajie, China, 2020, pp. 36-40, doi: 10.1109/ECIT50008.2020.00016.

[4] S Rachitha, Sanjana Sathish, Shruthi S, Vismitha, Ambika V "Android based System for D
Services" International Journal of Computer Trends and Technology,vol 67, Issue 5,pp 67.5 :104-108,2019.

[5] Taein Hwang, Hojin Park and Jin Wook Chung, "Design and implementation of the home service delive
management system based on OSGi service platform," 2006 *Digest of Technical Papers International Confer
Consumer Electronics*, Las Vegas, NV,USA,2006,pp. 189-190, doi: 10.1109/ICCE.2006.1598374.

[6] N. M. Indravasan, "MAZDOOR- Online Application for Household Services", vol 8, Issue 3, May- June-2021

[7] K. Aravindhan, "Home delivery services: innovations and emerging needs", vol 49, Issue 12, pp 1371-1376,

[8] Sheetal Bandekar, Avril D'Silva, "Domestic Android Application for Home Services" International Jou
Computer Applications, ISSN no.0975_8887,vol 148_no.6,August 2016.

[9] Katawetawaraks, Chayapa & Wang, Cheng. (2011). "Online Shopper Behavior: Influences of Online Sh
Decision", Asian Journal of Business Research. 1. 10.14707/ajbr.110012.

[10] MIYAZAKI, ANTHONY D., and ANA FERNANDEZ. "Consumer Perceptions of Privacy and Security Ri
Online Shopping." *The Journal of Consumer Affairs*, vol. 35, no. 1, 2001, pp. 27–44.
http://www.jstor.org/stable/23860070. Accessed 10 May 2023.

[11] Yan, Xaioxing, "Impact of Online Shopping on Shopping Malls" Applied Economics Theses. 29,2018

[12] Saha, Amit. (2015). A Study on "The impact of online shopping upon retail trade business". IOSR Jou
Business and Management. 2. 74-78.

[13] Maliheh Ghajargar, Giovanni Zenezini, Teodoro Montanaro, Home delivery services: innovations and er
needs, IFAC-PapersOnLine, vol 49, Issue 12,2016,pp 1371-1376,

[14] N. M. Indravasan, Adarsh, Shruthi, Shanthi, Dadapeer "An Online System for Household Services." Inter
Journal of Engineering Research & Technology (IJERT),vol 6,issue 13, ISSN: 2278-0181,2018.

[15] Malileh Ghajargar, Giovanni Zenezini and Teodoro Montanaro "Home delivery services: innovations and er
needs." IFAC-PapersOnline, vol 49, Issue 12, pp 1371-1376, ISSN 2405-8963, 2016.

[16] Mia Andelin VTT Building and Transport "Home Service Concept – Technology, Logistics and Business M
VTT TIEDOTTEITA – RESEARCH NOTES 2226, 2003.

[17] Kundan Kumar Dubey, Ajitanshu Jha, Akshay Tiwari, D.Ganeshan "Android solvotech: An android based
application to hire the professionals for repair job and maintenance." vol 3. Issue 10, 2018.