Medcycle : Recirculality Medicine for Sustainability

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Abstract - Many individuals in India face extreme poverty, making it challenging for those with limited incomes to afford healthcare and medication. Consequently, they endure various illnesses, leading to a rise in daily fatalities. Additionally, there are instances of drug overdose among individuals who continue consuming drugs even after stopping prescribed medication. To address this issue, we have established a platform for donating unused medicines to NGOs. This initiative enables individuals to contribute their surplus medications to NGOs for distribution to those in need. By repurposing unused drugs, this platform aims to lessen healthcare expenses and improve access to medical services for the less fortunate. Furthermore, this system aids in monitoring the availability of crucial medicines at neighboring NGOs. The primary objective of this scheme is to provide surplus medicines for those in need. The platform facilitates the donation of unused medications to underprivileged individuals. Through this program, users can donate surplus drugs to NGOs, with administrators tasked with overseeing members and identifying and barring users who provide inaccurate or expired medicines. Administrators must validate the expiry date of uploaded medication images, while NGOs assist in managing inventory and monitoring available medications.

*Key Words***:** Distribution of Medicines, Website, NGOs, Health service

1.INTRODUCTION

Life is a significant matter in the human race. Lately, numerous individuals have been experiencing health issues. In less developed nations, healthcare stands as a crucial aspect of life. As a result of insufficient doctors and paramedical staff, individuals in developing countries have limited health care access [1]. Hence, healthcare is highly sought after in these regions.India is part of the developing nations. India has established public health initiatives and private sector organizations [2]. Furthermore, access to health services plays a vital role in India post its union:

1. India boasts a vast population, estimated at around 1.38 billion in 2021, with a density of 382 people per sq. km.
2. According to the World Health Organization (W.H.O), there are approximately 1.34 doctors for every 1,000 Indian residents [3].
3. Poverty affects the well-being of individuals and the country as a whole, leading to public health concerns. Roughly 6.7% of India's population lives below the national poverty line (earning an average of 2 USD daily) [4].In such scenarios, many individuals living below the poverty line cannot afford healthcare expenses. This inability, aside from drug dosages, becomes a key concern for the majority. Consequently, quality healthcare services and medications become unattainable, resulting in varied health conditions and casualties. Citizens facing severe poverty struggle to obtain necessary medications and maintain a stock for future use [2].We aim to develop a website to gather unused medications from donors through NGOs, catering to low-income individuals or those unable to afford quality medical services. Certified physicians would recommend medications for disadvantaged individuals accessing this site. We also assist in monitoring the availability of essential medicines for NGOs.Poverty renders a significant portion of the populace unable to afford costly medications, with many unable to use them effectively. From our survey, we found that 86.9% of respondents believe a reliable platform should exist for donating unused medications. They perceive our portal as trustworthy and are willing to contribute medications for the less privileged. This insight primarily drove the creation of our web portal.We introduced an open survey acting as a discussion forum to comprehend why some individuals hesitate to receive medications from a

dependable platform or trusted web portal. Trustworthiness and medication expiry dates emerged as major concerns, leading us to implement an algorithm for verifying expiration dates directly on the portal. Therefore, we are imposing an expiration date validation requirement on medications.

2. LITERATURE REVIEW

This section of the literature review essentially discusses certain facts derived from the speculative research of numerous authors employing this methodology.

1. **Donor Portals for Health Support:**
   o MESCO Social and Environmental Management Organization, Give India, was founded on April 28, 2000, with a commitment to equality as the foundation of society. Their aim is to offer fair opportunities for all individuals to thrive, irrespective of their circumstances.
2. **Economic Disparities in India:**
   o India's diverse economy witnessed a growth rate of 10.91% in 2016-17, surpassing the 8.50% recorded in 2015-16. Moreover, India has a higher percentage of affluent individuals, growing at 9.5% compared to the average Asian growth rate of 7.5%.
3. **Challenges Faced:**
   o Shockingly, 36% of children under five in India suffer from malnutrition, while 51% of women of childbearing age are affected by anemia. Additionally, 33 million children are engaged in child labor, and there are widespread issues of child abuse. Furthermore, 350 million Indians lack access to proper sanitation facilities.
4. **Initiative by Give India:**
   o Give India seeks to address this disparity by connecting donors with organizations striving to make a positive impact. By focusing on education and income generation, they aim to break the cycle of poverty affecting families for generations.
5. **Friendship NGO:**
   o Friendship NGO envisions a world where marginalized individuals can live with dignity and hope. They prioritize community interests, especially amidst global challenges such as poverty, inequality, and injustice.
6. **Med Share Initiatives:**
   o Med Share provides vital medical supplies to communities in need, enhancing the quality of life and healthcare services. By supporting healthcare professionals and organizations, they have improved countless lives through their contributions.

7. **Health Management Information System (HMIS) Challenges:**
   o Developing countries face several challenges in strengthening their Health Management Information Systems, including issues related to internet access, affordability of ICT services, data quality, and proper utilization.
8. **E-Health Services Study:**
   o Research on e-health services, particularly in rural areas, highlights challenges related to ease of use and perceived value. Various studies emphasize the potential of e-health services for improved healthcare delivery and outcomes.
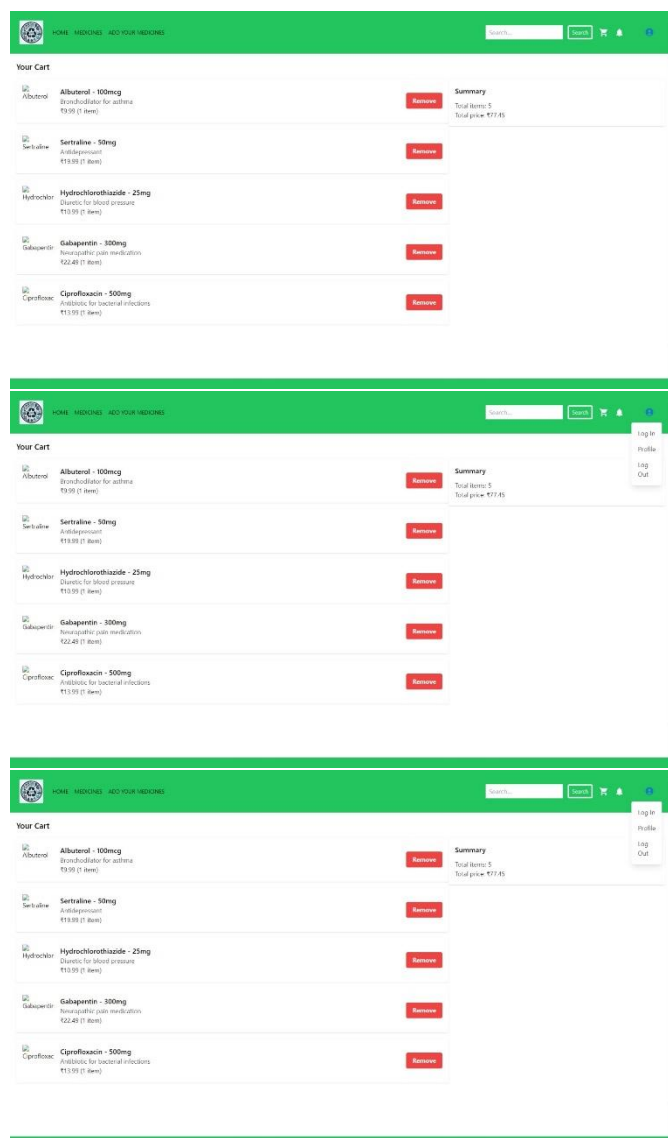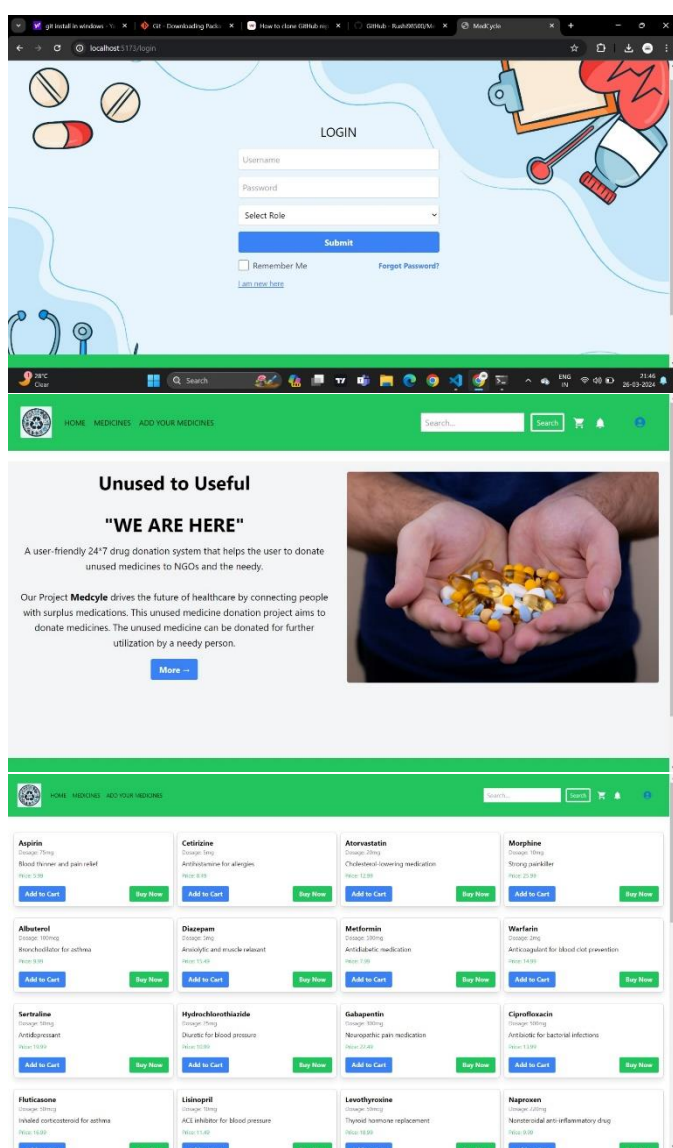
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4. OBJECTIVES

The aim of this project is to arrange a effective system to create link with the NGOs using the upcoming information and communication technologies. This system will help the poor for getting proper medication and can save life . Also interested people can contribute by joining the firm as a volunteer by sending the CVs and the resumes to the admin.

5.TOOLS AND TECHNOLOGY

1. PHP: It is an open source , interpreted , and object-oriented scripting language that can be executed at the serverside. PHP is well suited for web development . PHP stands for Hypertext Pre-processors . PHP is an interpreted language , i.e there is no need for compilation . PHP is more rapidly than other scripting languages , for examples , ASP and JSP. PHP is a server-side scripting language , which is used to manage the dynamic content of the website. PHP can be embedded into HTML. PHP is an object-oriented language . PHP is an open-source scripting language. PHP 7.4.0 is the latest version of PHP , which was released on , 28 November .
2. MySQL: MySQL is currently the most general database management system software used for dealing the relationship database . It is open-source database software , which is maintained by Oracle Company . It is fast , accessible , and easy to use database management system in judgment with Microsoft SQL Server and Oracle Database . It is commonly used in conjunction with php scripts for creating powerful and dynamic server-side or web-based enterprises applications .
3. Sublime Text Editor 3: It is a light weight , cross-platform code editor known for its speed , ease of use , and strong community support . Its an incredible editor right out of the box , but the real power comes from the ability to enhance its functionally using Package Sublime Text (ST3) is a lightweight , cross-platform code editor known for its speed , ease of use , and strong community support . Its an incredible editor right out of the box , but the real power comes from the ability to enhance its

functionality using Package Control and creating custom settings. 4. Apache: It is most widely used web server software . Developed and maintained by Apache Software Foundation , Apache is an open source software available for free . It runs on 67% of all web servers in the world . It is fast, reliable, and secure . It can be highly customized to meet the needs of many different environment by using extensions and modules . Most WordPress hosting providers use Apache as their web server software. However , WordPress can run on other web server software as well .

6. WEB SERVER

7. CONCLUSIONS

The portal has been tested and found to be user-friendly and efficient, with minimal errors and a low frequency of installation errors. The system is designed to familiarize the process of medicine donation and manage wastage of medicines. The checkout and browsing times are also normal, and a 1-minute form is provided for user feedback submission. However, there are limitations in the research, as only a few participants were examined. Further research is needed to increase efficiency and suitability of the system. A mobile application could be considered as a better alternative if traffic is high. The future plans include tracking location for medicine collectors and distributors, adding doctor suggestions or prescriptions for patients, and incorporating live interaction videos for doctors and patients. Further research is needed to assess the system's performance and ensure its suitability for a large audience.

ACKNOWLEDGEMENT

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