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Medibridge Care: Empowering Health with Technology and Compassion

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ABSTRACT: Over the years, the healthcare system has significantly improved. The technology available it is possible to integrate the medical services with online system to make the patient's life more convenient. Our application, Life Care, will help a patient to find a specialized doctor as per their needs, availability distance, and consultancy charges. This empowered health organization to boost their demand for new healthcare technologies and enable user to multiple access medical services and improved the user experience. It focuses on doctor and patient interaction. Patients need not remember their medicine dosage timings as they can set an alarm on their dosage timings. The alarm can be set for multiple medicine and timings including date, time and medicine descriptions. A notification will be sent to them through email or message insight the system preferably chosen by the patient they can search doctor diseases wise. The patient will get the contact detail of doctor as per their availability. Many such medical reminder system have been developed where a new hardware is required but in our work we have made an attempt to develop a system which is economical, time-saving and support medication adherence.

KEYWORDS: Health services platform, health communication, MedTech solutions, Automatic alarm, Remainder System, Notification system, Medicine scheduler.

I. INTRODUCTION

In today's fast-paced world, managing healthcare appointments accessing medical services efficiently is more important than ever. Our innovative healthcare application is designed to streamline the process of booking appointment with specialist doctors, making it easier for users to take charge of their health.

With a user-friendly interface, our platform allows patients to select their desired specialist, book appointments, and make secure online payment- all from the comfort of their homes. The application also offers the flexibility to cancel previously booked appointments online, ensuring that users can manage their schedules with ease. Once an appointment is completed, patients can conveniently view their prescriptions and receive timely notifications regarding their medication intake. These alerts, delivered as pop-up notification, help users stay on track with their treatment plans. Additionally, our platform provides users with the ability to view their doctors, fostering a sense of connection and trust. To enhance user experience, we have implemented a secure login and registration system, allowing new users to log in and out seamlessly.

II. RELATED WORK

Several medical treatment systems have been built using different approaches and platforms. With the growing popularity of remote healthcare and medical apps, a lot of researches in this field have been evolved. As part of that, several medication reminder systems have been introduced. In the researches proposed a prototype of an in-home medication management and healthcare system based on intelligent and interactive packaging and intelligent medicine box. Similar system is proposed in where a medicine reminder app that manages prescription schedules and alert for reminding patients about the type and time of medication according to the prescribed medicine schedule.



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A typically design for smart medicine box introduced in where a time table of prescribed medicines through push button as given in prescription . Another medication reminder system is proposed where it transmit open mobile data based messages which contain the patients prescription and the devices data to a remote medical staff.

We used the medication management concept to propose a medication reminder where pharamacists or patients can set the schedule time and the number of pills of up eight medical dose.

III.MEDIBRIDGE CARE: DEFINITION

Medibridge care typically refers to a healthcare services or platform designed to connect patients with healthcare providers, ensuring continous and coordinates care. It can involve the integration of medical information, communication tools, and care management tobridge gaps between different stages of treatment or between various healthcare services. “Medibridge Care is a healthcare services or platform designed to facililate seamless communication, collabortion, and care coordination between healthcare providers, patients, and medical proeffessional. It focuses on bridging gaps in care delivery, improving patient outcomes, and optimizing the use of digital health tools to enhanced the overall patient experienced.” It aims to bridge gaps in care delivery through digital tools and technologies, improving patient outcome, ensuring efficient management of chronic condition, and optimizing the overall healthcare experience.By leveraging data sharing, telemedicine, and real-time patient monitoring, Medibridge care enhances collaboration across care receive timely and personalized care.

IV.PROPOSED SYSTEM AND IMPLEMENTATION

The proposed system is based on Android Operating System which will be remind the usres to take medicine on time through notification and automatic alarm ringing system.Input to the system is the information entered by the patient which includes the time, date, medicine name, doctor’s name etc.

The proposed work for this outlines the developoment of a online healthcare appointment system that streamlines the process of scheduling, managing, and tracking medical appointments. Here is an overview of the proposed work.

1.Appoinment Booking and Management Appoinment Scheduling

Users will be able to book appoinment with doctor of their choice, selecting the specialist doctor based on their medical needs.

Online payment: After selecting the doctor and appoinment time, usres will have the option to make secure online payments for consultations or services.

Appoinment cancellation: Users can cancele previously booked appoinment through the platform, offering flexibility to manage their schedule.

Doctor selection: Users will be able to select doctors based on specialist,ratings,and availability.

2.Notification and Alerts

Prescription Viewing: After consultation, user can view the prescription provided by the doctor within their profile section, making it easy to keep track of medical advice.

Medecine Intake Alerts: Notification or pop-up alert will remind users about their prescribed medecine intake times, ensuring timely adherence tp treatment plans.

Appoinment Reminder: Usres will receive the reminders and update about their upcoming appoinment, as well as any changes in schedule.

3.Users and Doctor profiles

Users profile management: Users can create, edit and manage their profile, including personal details, medical history and appoinment records.

Doctor profile management: Users can also view detailed profile of doctor, including their qualification, experience, rating and other information to assist in choosing the right healthcare provider.

Personal Health Records: Over time user can maintain their health records, prescription and appoinment history of the platforms.



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4. User Authentication and Access

Login and Logout: User can securely log into the system and log out when finished. User credentials will be securely stored for future access.

Sign-up and Registration: New user can sign up and create a profile by providing essential information such as name, contact, details, and medical history.

V. PATIENT LOGIN MODULE

After login the patient will be able to view the list of all the registered doctor with their names, contact information, phone numbers, hospital address, the availability of doctor accordingly and all other information which the doctor registered at the time of signing into the system. They can see the dropdown view of the diseases and can directly navigate to the list of doctors. It also shows the next appointment with the doctor. This helps the patients to find the doctor diseases wise. The services help them to understand the system properly so that it becomes useful and productive. Medication reminder help in decreasing medication error and wrong dosages. The reminder system consists of two parts- setting Alarm and getting notifications.

The patient login module in a healthcare platform like medibridge care information typically provides secure access for patients to manage their health data, track appointments, view test results, communicate with healthcare providers, and more.

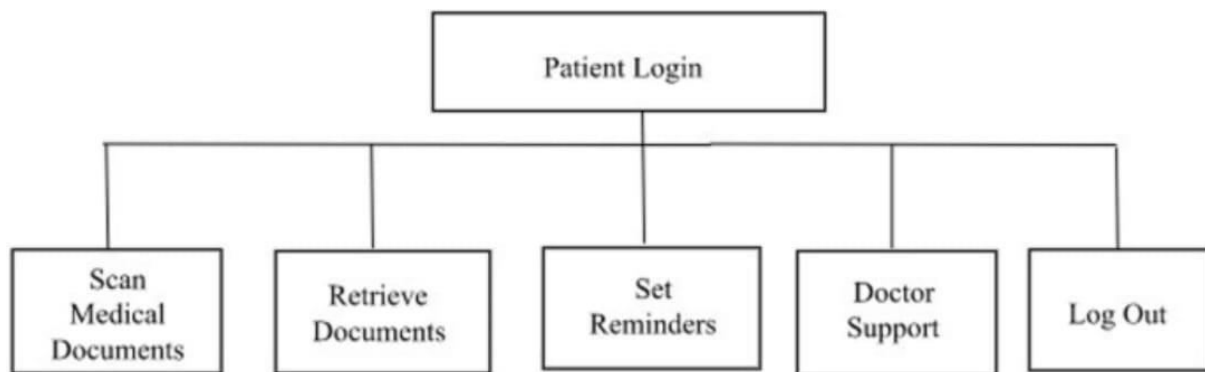


Figure 1 : Patient Login Module

VI. SET ALARM MODULE

It helps reminding about the medicines. Users can add detail of his dosage schedules. Using the date field one can enter the starting and ending dates between which he has to take medicine. The time field shows the time of dosage and on that time the alarm will get rung. The user can add the description of the medicine, including name, purpose and other related description. All the information will be saved in the database. This makes any time availability of the patient records. They can change the ringtone of the alarm from the ringtone stored in the devices. You need to access the system settings by login into your account once logged in, locate the section related to patient care or notification. From there, configure the alarm the parameter search as time base or event base triggers, setting thresholds for alerts like vital signs or specific action. Assign the alarm to the relevant patient or device, then save and activate the setting.



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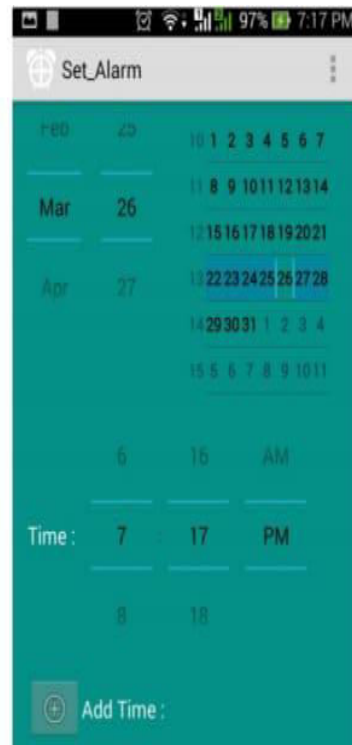


Figure 2 : Set Alarm

VII. GET NOTIFICATION MODULE

Once the alarm is set then the user gets notification. The users can activate or deactivate this accordingly if he does not required the notification he can turn of it. If he requires this system then a notification will be sent to into his device. Again if he wants the notification in email form he can select the notification through Email mode or if he require in a message formate he can go with notification through message mode.

To access the notification module in mediBridge care information log into the system, then nevigat to the patient care or allert setting section. Here, you can configure notification or specific eventd or updates, assign they to relevent patient or device, an customize how allerts are delivered. After setting up, save the changes activate the notification if needed, refer to the user guide for detail instruction.



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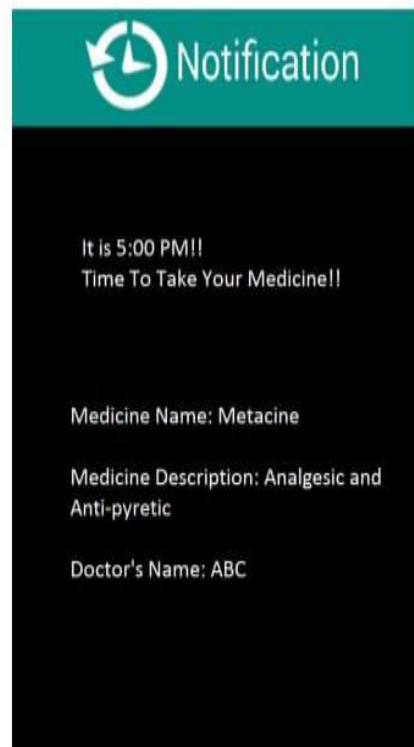


Figure 3 : Get Notification Module

VIII. DOCTOR LOGIN MODULE

The doctor login module in a health care platform like mediBridge care typically allows doctor and health care professional to securely access the system and manage their duties. The module insures that only authorized personal can view and modify sensitive medical data.

In it, the patient can read different posts, articles, new technology in new medical science, tips and other information of staying fit because staying fit is important for an international journal of managing public sector information and communication technologies (IJMPICCT).

Key Features of Doctor Login module:

1. Doctor can login using their unique credentials (User name and password). The password is typically encrypted for security. Option for password recovery or reset.
2. Once login, doctors may have access to specific features based on their role, such as view patient data, prescription, test result, or adding new result.
3. After login doctor can access their personalized dashboard, displaying tasks like:
 - Upcoming appointments
 - Resend patient information.
 - Notification or updates
 - Patient history and clinical notes
4. Doctor can search and view patient profiles, including history and treatment plans. Option to add or update patient records, including prescriptions and lab orders.
5. Doctor can manage their schedules, including review upcoming appointments, rescheduling and confirm patient visits.
6. Every login attempt, successfully or failed, is logged for security purposes. Doctor activities within the platform such as changes to patient records, are logged for auditing purposes.



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- 7. Automatic section logout after a certain period of in activity to maintain security. Option for doctor to manually logout when done.

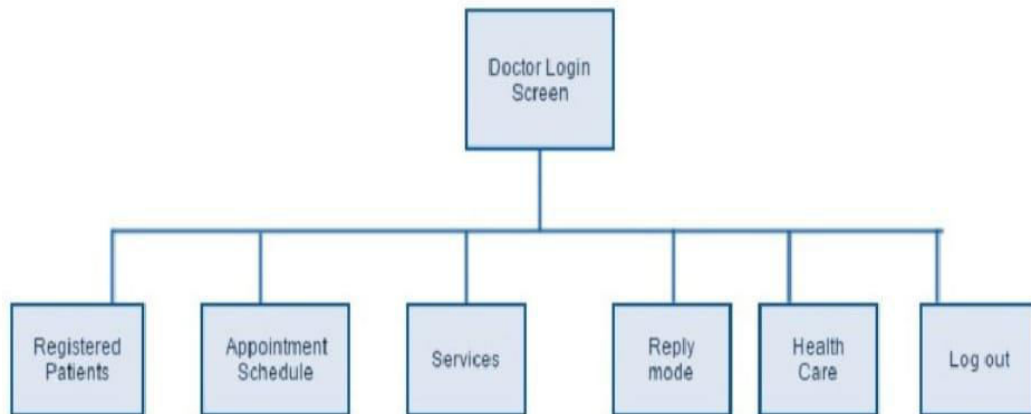


Figure 4 : Doctor Login Module

IX. RESULT

The final result of this project is the development and implementation of an integrated health care appointment management system, designed to streamline the process of booking and managing medical appointments, interacting with health care professionals and monitoring medication intake.

Prescripto

COMPANY

GET IN TOUCH

Figure No. 5



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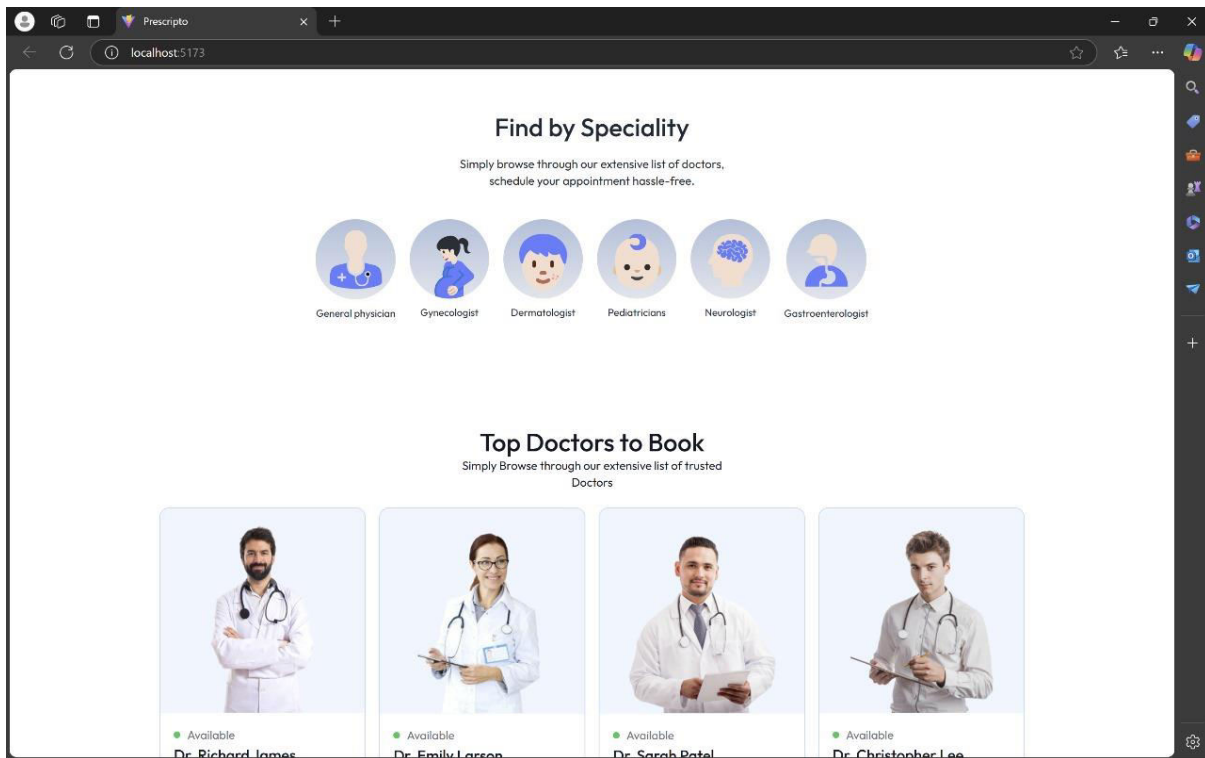


Figure No. 6

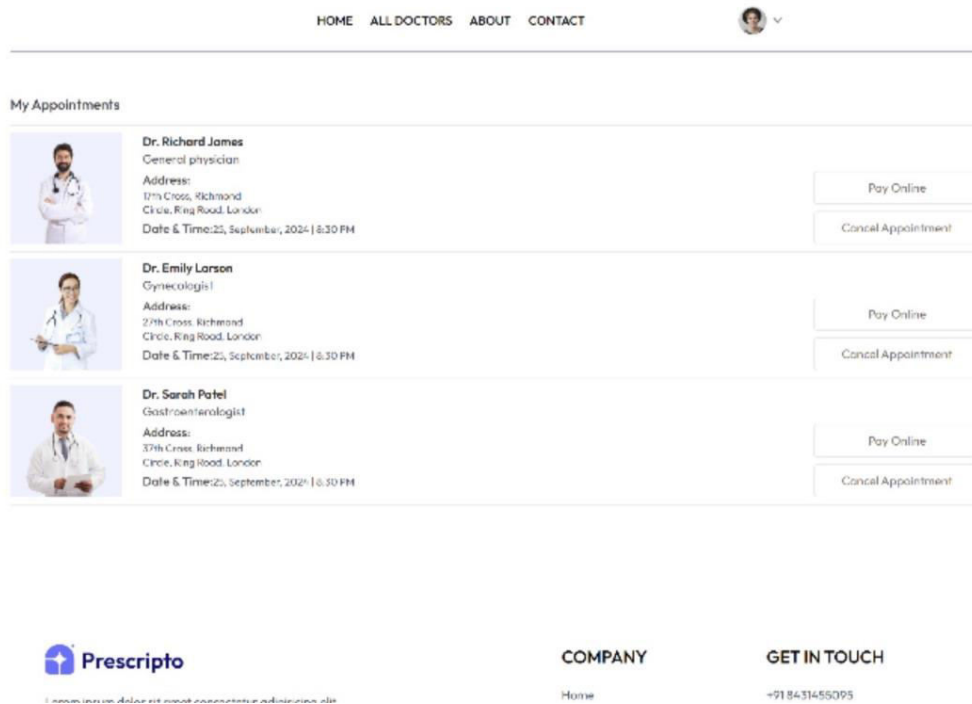


Figure No. 7



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X. CONCLUSION

This integrated health care appointment management system effectively bridges the gap between healthcare providers and patients by offering seamless online booking, payment, and communication channels. By automating key processes such as appointment scheduling, payment, and medication tracking, the system provides a more efficient and user-friendly healthcare management. Real-time notifications and alerts further enhance patient engagement and the prescription of treatment plans. The system's flexibility and accessibility ensure that both users and healthcare professionals can manage their interactions smoothly, resulting in improved satisfaction and care delivery.

In summary, the system represents a significant advancement in the way healthcare services can be managed digitally, offering great potential for further development and integration with emerging healthcare technologies.

This conclusion reflects the comprehensive functionality of our project and highlights its potential to improve healthcare management through digital solutions.

In this paper, we summarized key issues in designing and managing a patient appointment system for health services. This was intended to clarify the level of complexity encountered in the healthcare environment. Many medication reminder systems have been developed on different platforms. Many of these systems required special hardware devices to remind patients about their medication intake timing.

We planned to focus on improving the overall performance of the system. Also, interaction between patients and doctors through video calling and secure prescriptions will be a focus. Some more work to achieve medication adherence will be focused.

REFERENCES

- [1] https://www.researchgate.net/publication/343345999_Implementation_of_MediCare_Social_Media_System
- [2] <https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2022-enrollment-update-and-key-trends/>
- [3] <https://www.urban.org/research/publication/assessment-literature-integrated-care-models-peopledually->
- [4] Park, KeeHyun & Lim, SeungHyeon, (2012) "Construction of a Medication Reminder Synchronization System based on Data Synchronization", International Journal of Bio-Science and Bio-Technology, Vol.4, No. 4, pp1-10.
- [5] "Smartphone medication adherence apps: Potential benefits to patients and providers", available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919626/>
- [6] Slagle, J.M., Gordon, J.S., Harris, C.E., Davison, C.L., Culpepper, D.K., Scott P. and Johnson, K.B., (2011) "MyMediHealth – Designing a next generation system for child-centered medication management", Journal of Biomedical Informatics, Vol. 43, No. 5, pp. 27-31.
- [7] Becker, E., Metsis, V., Arora, R., Vinjumur, J.K., Xu, Y. and Makedon, F. (2009) "SmartDrawer: RFID- Based smart medicine drawer for assistive environments", Proc. of Pervasive technologies related to assistive environments, June, pp 1-8.
- [8] Linda V. Green (2008): Using Operations Research to Reduce Delays for Healthcare.



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