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"VIRTUAL MEDICAL MANAGEMENT SYSTEM"

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ABSTRACT

An Virtual Medical management system is a platform that enables healthcare providers to manage , prescriptions electronically. In the world day by day , people face new disease especially in rural areas , people do not have better treatment because of no specialist doctor. The platform is accessible from any device with an internet connections. The system improves patients safety by reducing the risk of errors associated with manual prescription processes and improves the overall efficiency of the healthcare system. The design of the proposed system was done as per the user requirement. The virtual medical management system is an online site where people appoint their best doctor according their requirements .

1.INTRODUCTION

The health care industry has undergone a significant evolution over the past few years , with the increasing of usage of digital technologies. The use of electronic medical records and remote medication has revolutionized the way healthcare services are delivered, making it more efficient and accessible. However, the management of medical prescriptions still largely relies on paper-based systems, which are prone to errors and can result in serious consequences for patients.

To address this issue, we propose the development of an "virtual medical management system". A web based application that enables healthcare providers to manage, track, and store medical prescriptions electronically. This system streamlines the prescription process, eliminates manual paper-based methods, and enables secure and efficient management of patient prescriptions. The application is accessible from any device with an internet connection and provides real-time updates, secure data storage, and electronic prescription renewals.

1.1 Objectives

The objective of the " Virtual Medical Management system" project is to create a modern and efficient platform for healthcare providers, doctors and patients to manage, track, and store medical prescriptions electronically. By digitizing the prescription process, the system aims to improve patient safety, accessibility, and satisfaction while reducing the risk of errors associated with manual processes.

The project aims to address the limitations of the existing manual paper-based system for managing medical prescriptions and streamline the prescription process, making it more efficient and effective for both healthcare providers and patients. The system will provide a secure and accessible webbased platform for healthcare providers to manage and track patient prescriptions, allowing for realtime updates and secure data storage.

1.2 Problem Statement

The current manual paper-based system for managing medical prescriptions is outdated, and inefficient. Traditional paper-based prescription management system often leads to delay, inaccuracies, and difficulty in accessing and updating information, which can lead to serious health consequences for patients. Patients might lose their physical prescriptions, or the prescription papers might get damaged, resulting in the loss of the patient's previous prescription records. Therefore, there is a need for a more efficient and convenient way to manage medical prescriptions of patients.

2. LITERATURE REVIEW

Developing a virtual medical management system is very valuable and important product for future medical field .Because since long period of time ,lot of people has done research on online medical system .

Here , in these system patients requires to gone web page or to download the mobile application and need to sign up there , while doctor need to register on the admin side . once upload the doctors can upload patients details and generate the prescriptions that are saved in patients database.

This paper proposes a virtual medical management system (VMMS) model, utilizing a cloud-based database management and control system for doctors, patients, and diagnostic centers. The VMMS system offers a website-based platform with a Mongo DB database, allowing doctors to access patient details, prescribe medication, and recommend medical tests. Patients can access their prescription details using their own access method, and diagnostic centers can upload patient test reports on time. Additionally, the system offers a pharmacy view feature for searching medicine with price and specifications. This system offers a modern alternative to the conventional medical system, with better options for exploring drugs and lessening patient suffering.

3. EXISTING SYSTEM

The existing system for managing medical prescriptions has been in place for many years, and while it has served its purpose in the past, it is becoming increasingly outdated and inefficient. Doctors must write prescriptions by hand on paper, which can be problematic for many reasons. For one, paper prescriptions can easily be lost or damaged, leading to a lack of information for both healthcare providers and patients. Moreover, illegible handwriting can lead to confusion and mistakes in medication dosages or instructions.

4. PROPOSED SYSTEM

The proposed online or virtual medical management system is a web- based application that aims to address the shortcomings of the existing system by providing a modern, secure, and accessible platform for managing medical prescriptions. The system allows healthcare providers to write and renew prescriptions electronically, eliminating the need for paper-based processes and reducing the risk of errors associated with manual processes. The system is designed to be easy to use, with an intuitive interface that simplifies the process of managing prescriptions. The proposed system enables real-time updates and easy accessibility from any device with an internet connection, providing patients with greater control over their own healthcare. Patients can view and download their prescriptions, making it easier for them to manage their medications and ensuring that they always have access to their prescription records.

5. SYSTEM REQUIRMENTS

The requirements of the system foe the Virtual Medical Management System include the use of front-end web technology like HTML , CSS, BOOTSTRAP , and mobile friendly UI components . Mongo DB as the database management System .

These technologies provide a robust and scalable platform for developing a modern and efficient medical prescription management system.

6. SYSTEM ARCHITECTURE

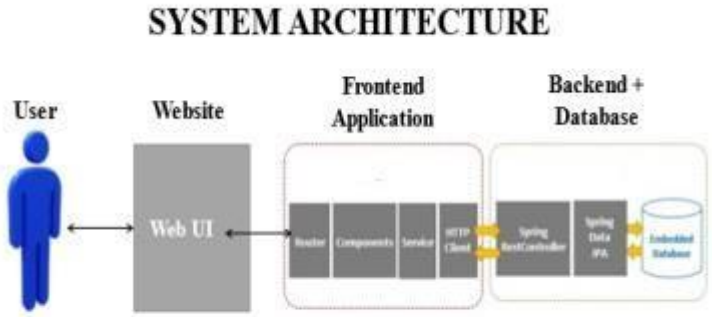

FIG.1 : System Architecture Diagram

7. MODULE DESCRIPTION

There are two types of module in this project :

1. Dcotor Module
2. Patient Module

7.1Doctor Module

The doctor module of the proposed Virtual Medical Medical Management System (VMMS) allows doctors to view patient details and manage prescriptions. The login credentials of doctors will be created by the admin during registration of doctor details, and doctors can use these credentials to log in to the system. Using the module, doctors can access patient information such as medical history and previous prescriptions. Doctors can also add new prescriptions, renew existing prescriptions, or delete prescriptions as needed. The module provides doctors with a search function to look up and manage patient prescriptions based on the patients name or contact number. Thus, the doctor module allows doctors to have greater control over the management of patient prescriptions, which can lead to improved patient outcomes and a more efficient healthcare system.

7.2Patient Module

The login credentials for patients will be created by the admin during the registration of patient details. Once the registration process is complete, patients can use the provided credentials to log in to the system. The patient module allows patients to access their prescription history, view their current prescriptions, and download their prescriptions. Patients can also search for the list of prescriptions prescribed by various doctors based on the date of prescription to view and download the required prescription. With the virtual medical management system, patients can easily access and manage their prescription history. This system also provides patients with greater control over their healthcare by allowing them to access their prescription information from any device with internet connectivity.

8.IMPLEMENTATIONS

The web application for Virtual Medical Management System is developed using,HTML Bootstrap CSS, EJS and MONGO DB Database . . Using the login credential, the admin can login to the web application and register Doctor details and Patient Details to the system. While the admin creates registrations of other users, the system automatically generates username for those users.

For Doctors, the system generated username will be their email ID and for patients the system generated username will be their mobile number followed by their full name in lowercase letters.

However, the password is created by the admin only. Once the admin created the Doctors and Patients registrations successfully, he/she can view the list of patients and list of doctors. The admin can edit and delete the user registrations from there.

Once the username and password details of doctor gets shared with him/her by the admin after successful registration, the doctor can login to the system. After logging in, the doctor can view the list of patients along with their other details except password. The doctor can search through the list of patients by using the search box, where he/she can search based on the patient's name or phone number. After identifying the details of the required patient, the doctor can view the patient's previous prescription records, if any, or can create and add a new prescription. Note that the date of the prescription, patient details and doctor details of the prescription will be automatically generated by the system and cannot be changed. The doctor can add patient's body temperature, pulse rate and prescribed medicine list along with the prescribed quantity, type etc., to the prescription. The doctor can edit or delete the prescriptions at any time.

9.CONCLUSION

In recent years, there has been a growing demand for digitization in the healthcare industry, with many healthcare providers moving towards implementing electronic health records and other digital solutions. The Virtual Medical Management System developed in this project is an important contribution towards this trend, offering a modern and efficient approach to managing medical prescriptions.

Through the use of HTML , Bootstrap ,CSS, EJS, and Mongo DB database technologies, this system offers a user friendly and intuitive interface for healthcare providers and patients to manage medical prescriptions. The system provides healthcare providers with the ability to manage prescriptions electronically, reducing the risk of errors associated with manual processes, and enabling real-time updates and easy accessibility from any device with an internet connection.

This offers patients greater control over their own healthcare, as they are no longer dependent on physical copies of their prescriptions, and can access their prescription history from anywhere with internet connectivity.

In conclusion, the Virtual Medical Management System developed in this project has the potential to revolutionize the way medical prescriptions are managed, making the process more efficient, secure, and accessible for both healthcare providers and patients. With further development and integration with other digital healthcare solutions, this system can play a critical role in improving the quality of healthcare delivery and patient outcomes.

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