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Clinic Management System

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***Abstract:** As people's levels of education rise particularly in medical industry the progress of our nation impacted by the inadequate health care patients in government hospitals occasionally have to wait hours to receive care. Although administration must maintain track of a vast number of files containing all patient information, this can occasionally result in redundant data and extra effort. This is the rationale for the proposal for the Online Clinic Management System, which is being developed with a web-based idea. An iterative waterfall model approach, dataflow, logical and entity relationship diagrams were among the techniques utilized in the system's development. Were employed in the system's design. Because all manual tasks in this system are being converted to computerized types, there would be no data redundancy during the registration process, records on patient details could be found more quickly, and patient waiting times before receiving medical treatment could be reduced. Keywords: computerized, health care, online clinic management system, and patient record.*

I. INTRODUCTION

Clinic is an organisation tasked with giving health care and drugs to people of different backgrounds. There must be persons who require the clinic's services on a daily basis. However, if the clinic continues to run its everyday operations using the traditional technique, how can it offer speedier and more efficient services? Customers using the old way must manually fill out the registration form with their information, which is only stored in files. Following registration, the files will be placed in the rack, which could lead to issues like misplacing the files, taking longer to access the information, or making mistakes when writing. To address all of the present issues at the clinic, a single system known as the Clinic Management System with Notification using GSM Modem will be developed. Clinic Administration Platform with GSM modem notification is specifically made to let the Clinic employees possess excellent efficiency management tools. Computerised and organised patient data, as well as specifics of Medical records. Additionally, this system offers appointment Feature that lets employees see appointments that have already Created by medical professionals, who then handle it by notifying Patients. Patients will be informed regarding their Appointment information on their smartphone. The clinic's present system will be replaced by this new one, which will undoubtedly enhance services and make daily tasks easier. Functioning without hiccups. The purpose of the Clinic Registration System is to enhance the clinic. Management streamlines the process that takes place in the Clinic. This system takes into account every activity that occurs in the clinic. The patient will register initially. Should the patient never Previously enrolled, patient data was gathered and kept in The information base. On the other hand, in the event that the patient is already a Information is searched using the IC (identity card) number. This will Enhance the patient's record and reduce the amount of time spent during the Signing up. The patient is currently assigned to the physician. The doctor will submit a report with the medication name as soon as the patient receives treatment. After reading the report, the staff will finish the patient record. Following that, the employees will Compile the patient's bills. The patient selects the preferred mode. To pay cash, or perhaps the clinic serves as the patient's panel physician. The personnel will then update the patient's information and the medication stock. Data will be stored in a database. The mechanism for managing clinics Is highly advantageous for a doctor's office. It will be fully stored. Medical history. The fact that it will make things easier is what matters most. In order to retrieve the patient's medical history. If, however, If a patient has a medication allergy, the physician may be able to identify What kind of medication we provide.

II. LITERATURE SURVEY

Online appointment scheduling has become more and more common in recent years. A variety of Web-based online appointment management systems are used by a wide range of enterprises to help streamline the appointment-setting process. Students can sign up and schedule meetings with their advisors using an online appointment management system. The development process of an online appointment web-based management system intended for usage in a higher education institution is described in full in this work [1]. They have carried out some testing to demonstrate our system's efficacy. Complexity problems in patient healthcare have been caused by the continuously emerging new specialties, various responsibilities, and public and private organization's. It is highly promising to create interoperable IT solutions for many areas of today's healthcare systems using an ontological framework.

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In terms of the patient's details, the registration process, and the reduction of patient waiting times. Because all manual tasks performed in the outpatient department are being converted to computerised systems, the registration process would avoid data redundancy, records pertaining to patient details can be found more quickly, and patient waiting times before receiving medical treatment from a doctor could be reduced. The goal of this project was to computerised all patient, employee, and medication supplier records. To do this, a comprehensive system study and investigation were conducted, and information about the current system was gathered and examined through the use of document and data flow diagrams. Since the idea of producing reports has been computerised, there is no longer any delay. In order to generate more benefits for their stakeholders as well as themselves, the majority of the medical industry today uses network services and offers online web services, including the booking process. To address all of the present issues at the clinic, a single system named the Dental Clinic Management System with Notification using Web will be developed. The Decision Support System for Dental Clinic is developed in this study [7] and provides information on the dentist profile, patient information, including personal details, treatment, appointment, billing, and dental conditions and treatments. Visual Studio 10 is used to generate interfaces and code during system development. This method benefits everyone who uses it, including clinic employees and end consumers.

III. PROPOSED SYSTEM ARCHITECTURE

1) *A Problem Definition:* This solution keeps all of the information about an online clinic in one database and one application. This system's functionality will be simply handled by the users. The device will also be used by doctors to monitor the patients who consult with them. The approach aims to decrease overtime compensation while simultaneously increasing the number of patients that can receive precise treatment. This document contains both functional and non-functional requirements statements.
2) *Proposed System Description:* The suggested system is an online programmed that addresses every facet of clinic administration and operation. Features of this website include clinical test results, billing information for medical stores, online appointments, patient reports, patient records, doctor details, and more. The project facilitates access to the entire application for administrators. Patients may make appointments online or offline, doctors can manage patient records, receptionists can approve appointments and create bills, and medical store administrators can view recommended prescriptions. Every patient at the Polyclinic has a special password and patient ID. Patients can access the polyclinic website by logging in with their User ID and password, after which they can view Utilising a clinic management system may improve all hospital operations, including service delivery and workflow, while also helping to reduce.
3) *Patient Registration Module:* This module is responsible for registering patient data, including contact details, personal information, symptoms, and health metrics. Throughout the registration process, the patient's picture is also taken. The information is kept in the database. The patient ID created during registration or any other distinct identification provided during the registration process can be used to recover it at a later time for reference.
4) *Doctor Registration Module:* This module addresses the registration of physicians who work in the clinic. The documents are stored in the database and are retrievable upon request for further information. The doctor's personal data, contact details, shift information, and other details are maintained in the database. The doctor's duty time is likewise documented in the doctor module. You can view the list of doctors who are available for help when needed. The clinic data entry operator/admin will be able to assign patient appointments based on the information provided in the list of doctors, which includes the doctors' availability for that specific time slot.
5) *Appointment scheduling Module:* The application automates the scheduling process for appointments. The scheduling of the doctor's consultation appointment is completed. Depending on when a patient registers or enters the clinic, the scheduler will set up their appointment. The first-in, first-out approach will be used by the scheduler to distribute the appointments.
6) *Patient Appointment Scheduling:* Patients who receive massage therapy make their appointments using the appointment scheduler. The scheduler assigns the appointment depending on the patient's chosen appointment time. The appointment information is kept in the database. If necessary, the booked appointment may be deleted or rescheduled.

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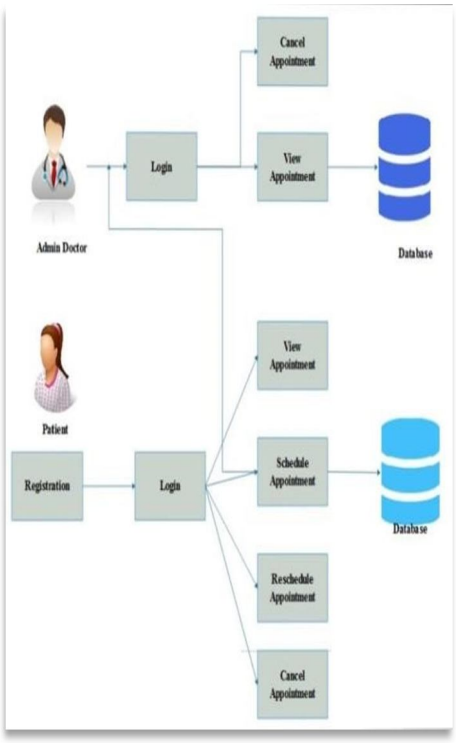
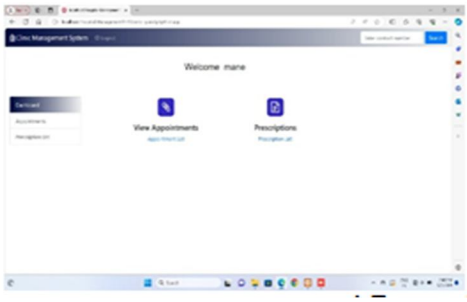


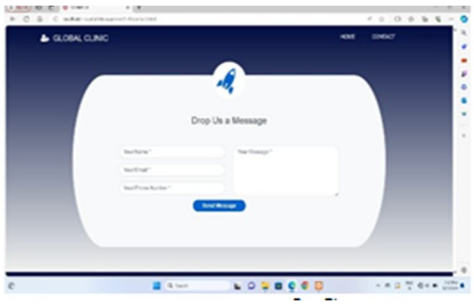
Fig 1 – Proposed System Architecture

A computerized patient record system is called a clinic management system. The system's primary goal is to lessen the workload for physicians and nurses while also improving the management of patient records. It does this by combining clinical, scheduling, electronic medical record, charting, and data reporting components, all of which help clinics offer high quality treatment to their patients. In conclusion, physicians and nurses will gain from the suggested system. It is possible to arrange a lot of work and planning more efficiently.

IV. IMPLEMENTATION



1. Doctor dashboard



2.Contact us



3. Add Doctor

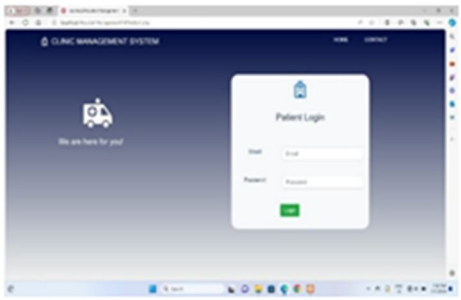


4. Patient Dashboard

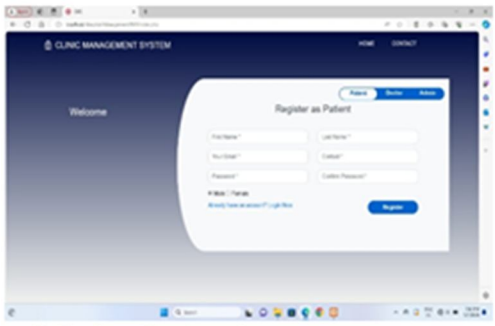
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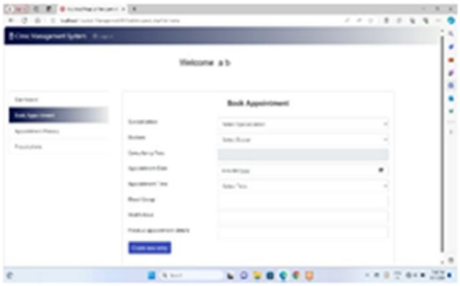
5. Appointment History



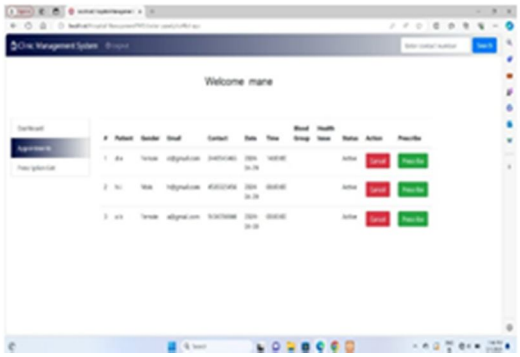
6. Patient Login



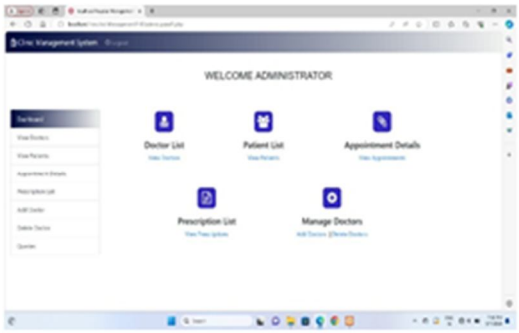
7. Patient Registration



8. Book Appointment



9. Appointments



10. Admin Dashboard



11. View Doctors



12. Delete Doctor

V. CONCLUSION

The Clinic Management System Offers a patient appointments, patient history, patient records etc. Clinic Management System is very useful web based system. Users can take appointments anytime and anywhere. The system reduces the manual procedure of managing clinic activities. Doctors can view their patients treatment records and details easily. The system is user-friendly, improve communication. The Clinic management system will be successful in many resources.

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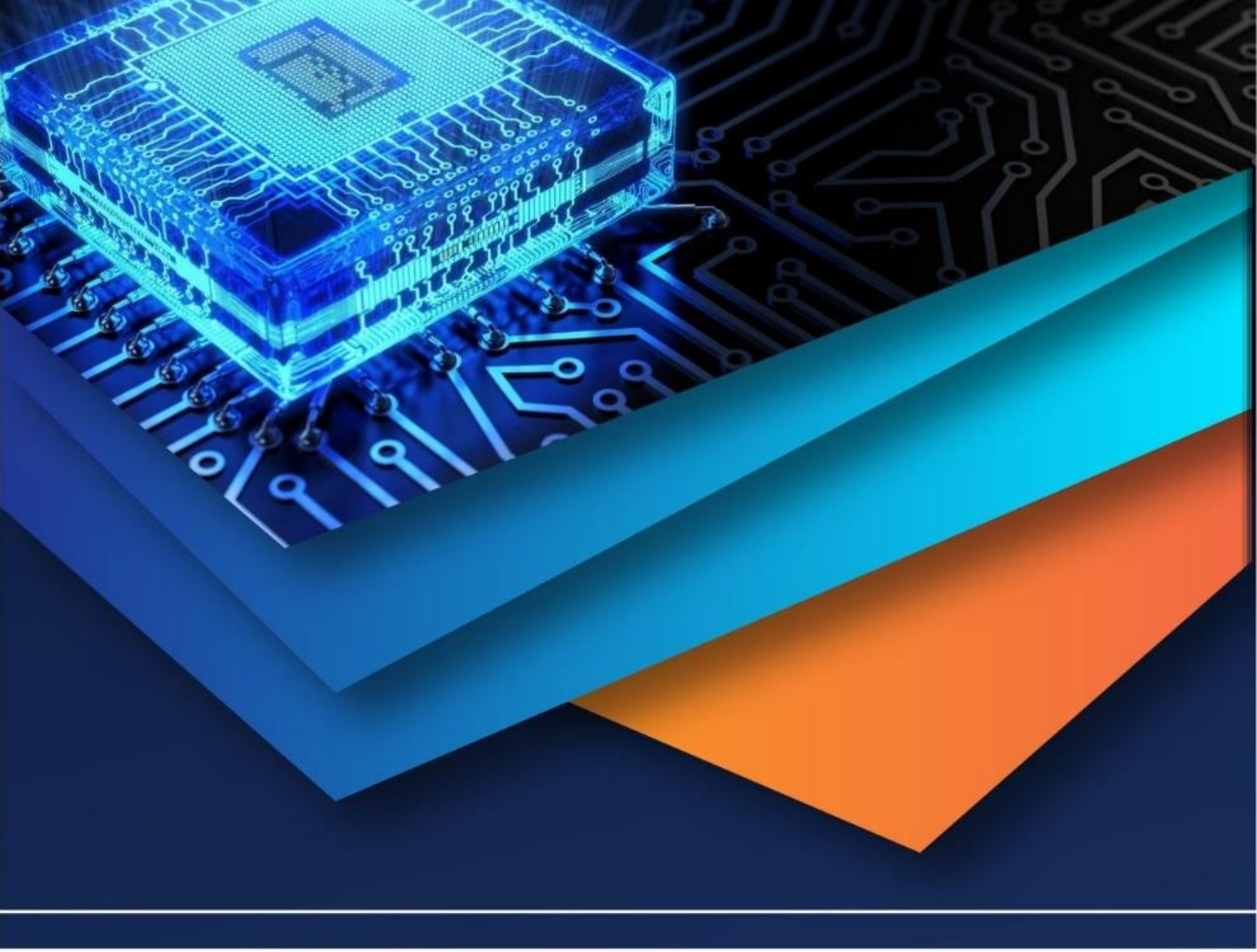
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