iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** V **Month of publication:** May 2023

DOI: https://doi.org/10.22214/ijraset.2023.53001

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue V May 2023- Available at www.ijraset.com

Hospital Management System for Enhancing Patient Care and Executive Process

Harsh Sharma[1], Mohd Parvez[2], Md Shahnawaz Akhtar[3], Mir Syed Abdul Hadi[4], Mr. Jain Singh[5]
[1,2,3,4]*Student,* [5]*Assistant Professor, Dept. CSE, IIMT College, Gr. Noida, UP India*

Abstract: ***Our hospital management system in our project includes registering patients, storing information in the system and scheduling appointments with doctors. Our software has the ability to assign a unique ID to each patient and automatically store the details of each patient and staff. Users can search patient details using availability and doctor name. The hospital administration can be accessed with a username and password. It can be accessed by administrator or host. It can only add information to the database. Information is easily available. The interface is user friendly. Data is well protected for personal use and speed up data processing. There are mainly two modules. One at the Management level and the other for patient users and doctors. the program that validates the software for access. Administrative duties include managing physician information and patient information. To achieve this goal, a database has been created, one for patients and another for doctors that can be accessed by the administrator. Complaints filed by users will be answered by the authorities. The patient module includes appointments, prescription checks. Users can also pay doctor bills online.***
Keywords: Registeration, patients, doctors, Receptionist, Appointments.

I. INTRODUCTION

A Hospital Management System is a system that enables hospitals to manage information and data related to all aspects of healthcare – processes, providers, patients and more, which in turn ensures that processes are completed quickly and efficiently. When you think about the various aspects and departments of a hospital, it is obvious that "HOSPITAL MANAGEMENT SYSTEM" is critical. A hospital database system was introduced at an early stage and has since evolved considerably – with the ability to integrate with the hospital's existing equipment, technology, software and systems. Today, patients can start the healthcare process in the palm of their hand – mobile devices and apps make it possible. This process then moves to healthcare providers and hospitals. Keywords: Data Management , Healthcare providers ,Patients, Technology, Facilities.

II. PROBLEM STATEMENT

In this busy world, we don't have time to wait in questionable long lines at hospitals. The problem is that the queues at the hospital are often run by administrative staff, then they take a token there and then we wait for our turn, then we ask the doctor and the most frustrating thing we have ever gone there when we traveled a long distance and then we will know, the doctor is on vacation or the doctor cannot accept appointments. It will help us overcome all these problems because now patients can make appointments at home and check in with the doctors they want to see. Doctors can also confirm or decline an appointment, which helps both the patient and the doctor, because if the doctor refuses the appointment, the patient will know in advance, and the patient will visit the hospital only when the doctor confirms the appointment, saving the patient time and money. Patients can also pay the doctor consultant fee online to save their time. "Hospital Management System" is essential for all healthcare facilities, be it hospitals, nursing homes, health clinics, rehabilitation centers, dispensaries or clinics. The main objective is to computerize all the details related to the patient and the hospital. The installation of this healthcare software results in improved administrative functions and thus better patient care, which is the primary goal of any healthcare unit.

III. LITERATURE REVIEW

A. *Musa, A. Lancashire Bus. Sch., Univ. Central Lancashire, Preston, Y, Mekel : " A hospital resource and patient management system based on real-time data capture and intelligent decision"*

In this project hospital management systems is work efficiency and waiting time between different processes, departments and people. This paper addresses such limitations of existing systems and proposes RFID (Radio Emergency ID) and wireless sensors, location and data management framework that facilitates real-time tracking of hospital assets, staff and patients as part of pre-prepared procedures. daily hospital operations. The system includes visual simulation and provides the ability to analyze ongoing process so that adjustments can be made to improve process efficiency and service level.

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B. Dr Christopher Bain MBBS: Developing Effective Hospital Management Information Systems:

A Technology Ecosystem Perspective The author of this article focuses more on the needs of the hospital manager and the ecosystem in which he works. Factors that make up the internal and external environment are ESFs that influence or combine the day-to-day operations of the hospital and the decision-making process that hospital managers must go through in each situation.

C. Daiping Hu, Antai Sh. Management.,Shanghai JiaotongUniversity: "Exploration of Hospital Health Management Information System".

One of the main challenges faced by existing hospital management systems is operational efficiency and waiting time between different processes, departments and people. This paper highlights the limitations of existing systems and proposes RFID (Radio Emergency ID) and wireless sensors, location and data management frameworks that facilitate real-time tracking of hospital assets, staff and patients.

D. Gudrun Hübner-Blodera , Elske Ammenwertha , Birgit Brigl :"Specification of a Reference Model for the Domain Layer of a Hospital Information System "

The system aims to automate and digitize various administrative tasks such as patient registration, appointment scheduling, billing and inventory management. The goal is to reduce manual paperwork, reduce errors, and improve operational efficiency

E. Priyanka patel, Sruthi kunhiraman, Rohni Temkins VES Institute of Chamber, Mumabi: "Intelligent Hospital Managemenr System"

From this paper clear idea of components to be included into the software solution was taken. Health Mangement system and domain search of nearest medical appointment/services.

IV. METHODOLOGY

There are several research papers related to online hospital management systems. After reading many of them, we found that many people have jobs in this field, and there are good jobs, but there is always room for improvement. The methodology we used to conduct the research was to read and analyze studies related to online herbal delivery in this market. There are also several web applications on the internet that provide good quality plants. We visit those websites and analyze their performance. We have seen many opportunities to improve the existing work. There are a number of technologies that may be included on our site. Sufficient improvements can be made to the existing system to obtain a dynamic and resilient system.

There are many technologies in the market that are developing every day. This technology comes into play

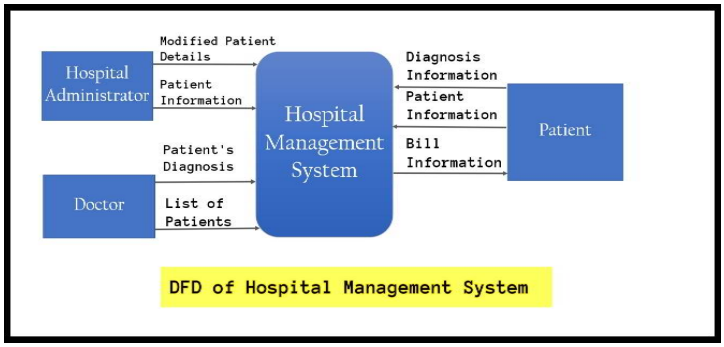
V. PROPOSE

This software will help you be more efficient in registering patients and managing appointments and patient records. It allows doctors and admins to view and change appointment schedules as needed. The aim of this project is to computerize all information related to patient details and hospital details.

A. Hardware And Software Requirement

The PC hardware required for this platform must have at least 2 GB of RAM. Windows 7 or a higher version of Windows OS is required to run this web application. Software requirements include visual studio code, HTML, CSS, JavaScript, php, larvel, MYSQL database.

VI. SYSTEM ARCHITECTURE



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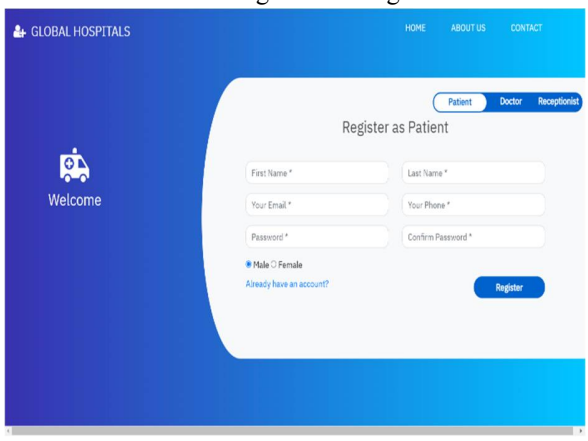
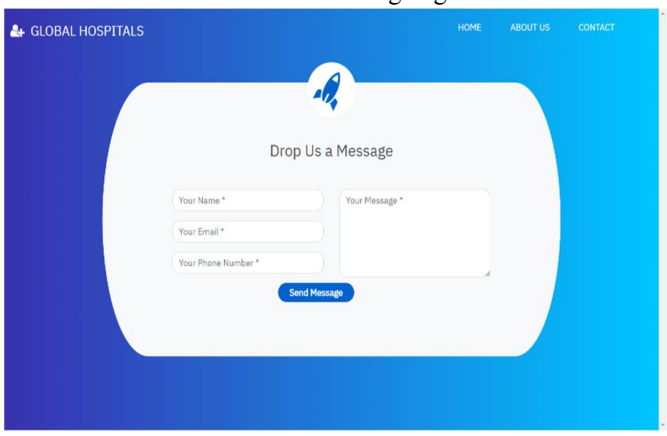
It shows relation between clinet basically patient and doctor(the provider) connected through a system . which manage all things neetly and efficiently

Pic: Registration Page



Pic:feedback/Msg Page



VII. TECHNOLOGY USED

A. HTML

HTML stands for Hypertext Markup Language and is the standard markup language used to create web pages and applications. HTML is a markup language because it uses a combination of markups to describe the structure and content of a document.

B. CSS

CSS stands for Cascading Style Sheets. A coding language used in web development to define the type and appearance of HTML elements on a web page. CSS allows developers to separate the design and layout of a website from its content, making it easier to manage and update the website. With CSS, developers can create rules that determine how different HTML elements such as text, images, and buttons should be displayed, including things like font Page like font Pagelike font size, color, and spacing. CSS is a key technology in modern web design and is widely used with HTML and JavaScript to create interactive and engaging websites.

C. JavaScript

JavaScript is an advanced programming language used to create dynamic and interactive web pages. Client-side scripting languages run on the user's computer, not on the server. JavaScript is widely used in web development to create an interactive user interface, animate elements on the website, and validate user input.

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D. PHP

The term PHP is short for PHP: Hypertext Preprocessor. PHP is a server-side scripting language outlined particularly for web advancement. Open source means free to download and use. Very simple to learn and use. Those files have a ".php" extension.

E. Larvel

Laravel is a reliable and easy to understand open source PHP framework. It follows the model-view-controller design pattern. Laravel reuses existing parts of various frameworks that help build web applications. Web applications built this way are more structured and pragmatic.

VIII. CONCLUSION

Working on the venture was a awesome involvement. It made a difference me get
it the significance of arranging, planning and executing what we learned in our hypothesis books. Our time working in bunches makes a difference us to unleash our inventiveness. He moreover realized the significance of participation and communication as portion of this venture.
The extend was effectively completed after numerous hours of exertion and work. This venture has done
a parcel of arrangement, investigating, including more highlights tothe clinic administration framework and making theinteractivity more solid and valuable.

Therefore, we come to taking after conclusion.

1) Time sparing technology.
2) Improve effectiveness by maintaining a strategic distance from human error.
3) Effective and simple to manage.
4) Data security and legitimate information expulsion is possible
5) Easy get to quit data with precise understanding history .
6) Document reduction.
7) Doctors can include medicines utilizing website.

IX. FUTURE SCOPE

Hospitals and healthcare centers have experienced a alter for its improvement. The organizations of
healthcare division are picking IT arrangements for the superior administration and persistent care in their healing center campus. Have a see at a few striking highlights of healing center administration software.
Day by day capacities like understanding enrollment, observing blood bank, overseeing confirmation and generally administration of different divisions can be effectively performed with higher exactness after the establishment of healing center program. The modules of healing center administration computer program are userfriendly and simple to get to. It encompasses a common client neighborly interface having a few modules. The authorities can utilize these modules in their processes without any bother and make the most excellent conceivable utilize of clinic administration framework.
Since, each healing center has a few or the other focuses of worth those shift in comparison with to its competitors. Thus, most of the IT companies deliver on-demand arrangements or include of customization.
It assist ensnares that clinic data administration computer program can be customized by indicating individual necessities of the campus.

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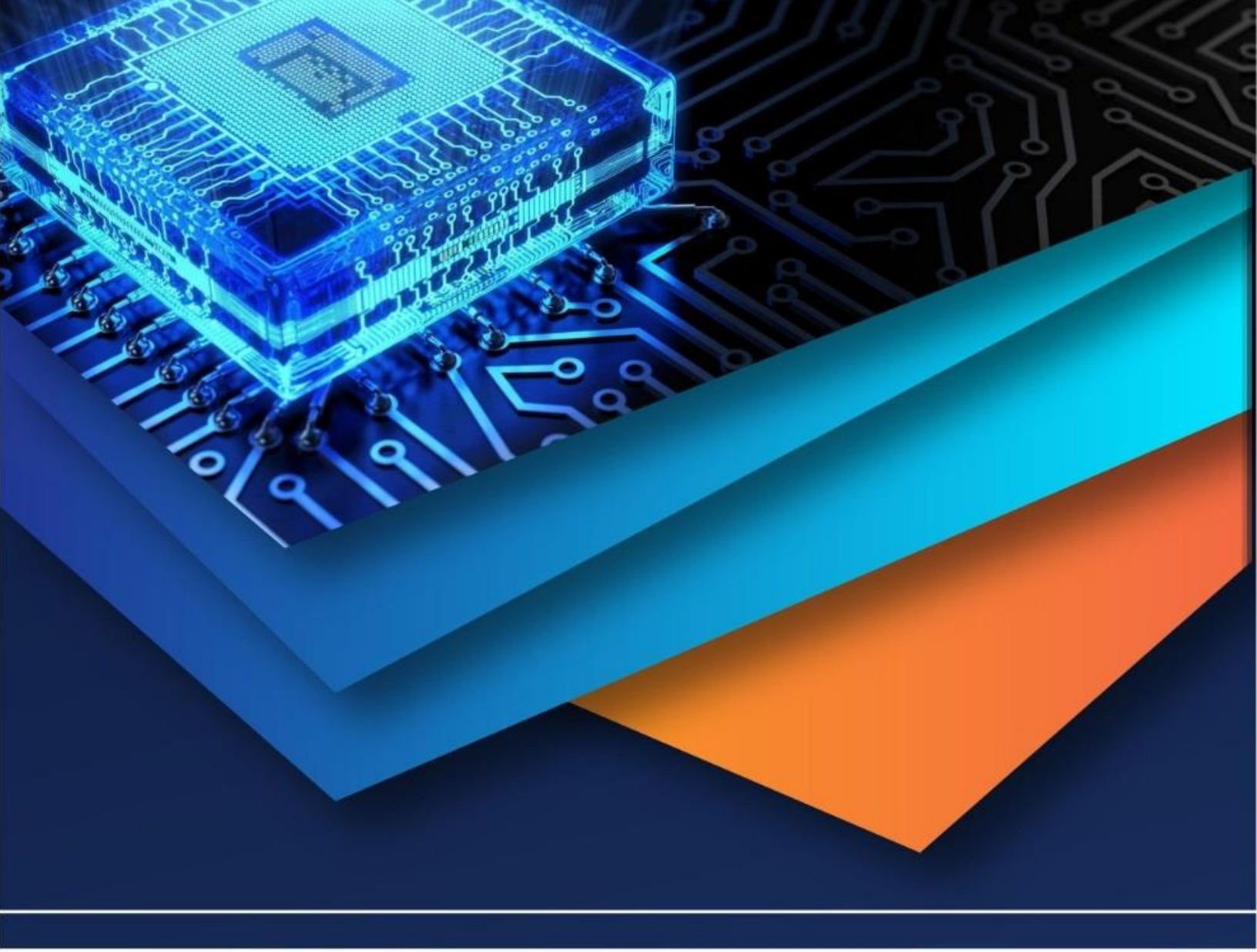

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