EasyChair Preprint

№ 10497

E-Health Care Management System

Aman Raj Chaurasia, Ajay Yadav, Mohammad Harman Rashidi, Aditya Pratap and Susheel Maurya

July 8, 2023

E-HEALTH CARE MANAGEMENT SYSTEM

Aman Raj Chaurasia, Ajay Yadav, Mohammad Harman Rashidi, Aditya Pratap
(CSE dept.)

Mr. S.K. Maurya
(Assistant Professor)

Dr.A.P.J.Abdul kalam technical university
Lucknow, Utter Pradesh

Abstract*— *The advancement of technology has revolutionized various industries, and the healthcare sector is no exception. E-healthcare management systems have emerged as a groundbreaking solution to enhance the efficiency, accessibility, and quality of healthcare services. This abstract provides an overview of the key features and benefits of an E-healthcare management system, highlighting its potential to transform healthcare delivery. An E-healthcare management system is a comprehensive digital platform that integrates various components of healthcare management, including electronic health records (EHRs), patient scheduling, billing and payment processing, telemedicine, data analytics, and more. It enables healthcare providers, administrators, and patients to seamlessly interact and collaborate, streamlining processes and improving overall healthcare outcomes. One of the primary advantages of an E-healthcare management system is the digitization of patient health records. By securely storing and organizing medical information in electronic format, healthcare professionals can access patient data in real-time, enabling them to make more informed and timely decisions. This leads to improved patient care, reduced medical errors, and enhanced coordination among healthcare providers.

Keywords—Advanced software in hospitals, managing data, administration, user friendly.

I. INTRODUCTION

E - Healthcare Management System is a software product suite designed to improve the quality and management of hospital management in the areas of clinical process analysis and activity-based costing. E - Healthcare Management System enables you to develop your organization and improve its effectiveness and quality of work. Managing the key processes efficiently is critical to the success of the hospital helps you manage your processes. All this work is done manually by the receptionist and other operational staff and lot of papers are needed to be handled and taken care of Doctors must remember various medicines available for diagnosis and sometimes miss better alternatives as they cannot remember them at that time. To be used efficiently, all computer software needs certain hardware components or the other software resources to be present on a computer. These pre-requisites are known as(computer) system requirements and are often used as a guideline as opposed to an absolute rule. Most software defines two sets of system requirements: minimum and recommended. With increasing demand for higher processing power and resources in newer versions of software, system requirements tend to increase over time. Industry analysts suggest that this trend plays a bigger part in driving upgrades to existing computer systems than technological advancements.

E - Healthcare Management System is designed for multispecialty hospitals, to cover a wide range of hospital administration and management processes. It is an integrated end-to-end E - Healthcare Management System that provides relevant information across the hospital to support effective decision making for patient care, hospital administration and critical financial accounting, in a seamless flow.

Such problems include:

- *The information is very difficult to retrieve and to find information*
- *The information generated by various transactions takes time and efforts to be stored at right place.*
- *Manual calculations are error prone and take a lot of time, this may result in incorrect information.*
- *This becomes a difficult task as information is difficult to collect from various registers.*
- *Huge influx of patients visiting government hospitals makes the process of migrating to automated processes highly difficult. They do not have the patience to wait for registration and data entry and often fail to understand the functioning of automated processes.*
- *developed as a customized software based on specific hospital requirements (user requirements). The paper looks at assessing and identifying the key components*

Limitations of existing system:

Lack of security of data.
Time consuming.
Scalability
Manual work.

To avoid all these limitations and make the system working more accurately it needs to be computerized. ***Objectives of proposed system:*** *The E - Healthcare Management System is designed for any hospital to replace their existing manual paper-based system. The new system is to control the information of patients. Room availability, staff and operating room schedules and patient invoices. These services are to be provided in an efficient, cost-effective manner, with the goal of reducing the time and resources currently required for such tasks.*

ACKNOWLEDGMENTS

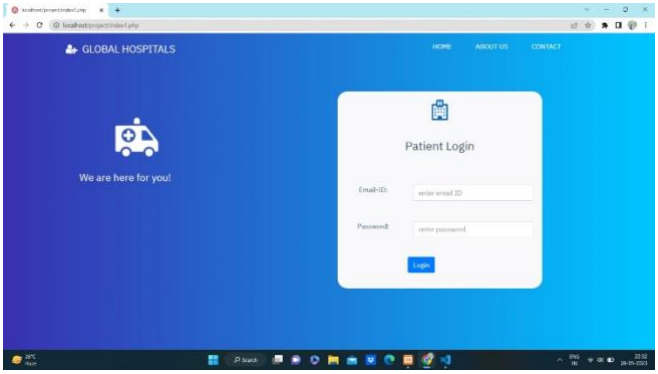
FIRST OF ALL, WE ARE GRATEFUL TO ALMIGHTY, THE MOST BENEFICENT AND MERCIFUL, WHO PROVIDES US CONFIDENCE AND DETERMINATION IN ACCOMPLISHING THIS WORK. WE ARE IMMENSELY THANKFUL AND EXPRESS OUR DEEP SENSE OF GRATITUDE AND IN DATEDNESS TO OUR PROJECT COORDINATOR PROF. (DR.) C.L.P. GUPTA, DEAN ACADEMICS & PROFESSOR IN DEPARTMENT OF INFORMATION TECHNOLOGY AND GUIDE MR. SHIVAM AWASTHI FOR SUGGESTING US A PROBLEM OF VITAL INTEREST WITHOUT WHICH BENIGN GUIDANCE AND CONCRETE ADVICE TO THIS PROJECT WOULD NOT HAVE SEEN THE LIGHT OF THE DAY. THEIR CONTINUOUS MONITORING AND TIME MANAGEMENT WAS AN INSPIRED FORCE FOR US TO COMPLETE THE WORK. AMONG REST TO MENTION WE WOULD LIKE TO THANK ALL MY COLLEAGUES AND FRIENDS ESPECIALLY ANAMIKA VERMA WHO SUPPORTED AND HELPED US IN COMPLETION OF THIS WORK.

WE ARE GRATEFUL TO THE AUTHORS AND SCHOLARS WHOSE WORK WE HAVE REFERRED AS A GUIDING STONE IN OUR PROJECT. LASTLY, WE WOULD LIKE TO THANK MY FATHER & MOTHER. NO WORDS CAN EXPRESS OUR HEARTFELT GRATITUDE FOR THEM.

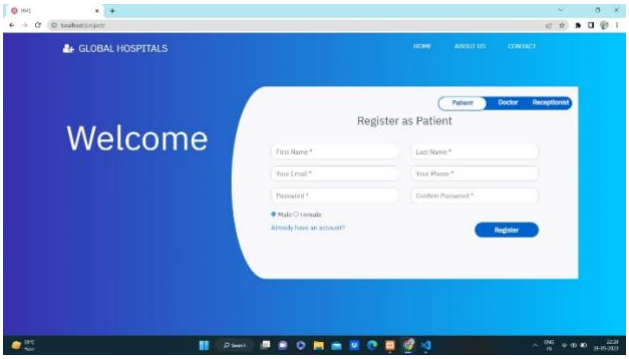
Materials and Methods

Software requirement specifications
Operating System
Font-end
Back-end
Design Tool
XAMPP
Software specifications:
Windows 2000/XP
Visual Basic 6.0
MS Access
Data Flow Diagram
Hardware Specifications
Processor : X86 Compatible processor with 1.7 GHz Clock speed
RAM : 512 MB or more
Hard disk : 20 GB or more Monitor : VGA/SVGA
Keyboard : 104 Keys
Mouse : 2 buttons/ 3 buttons

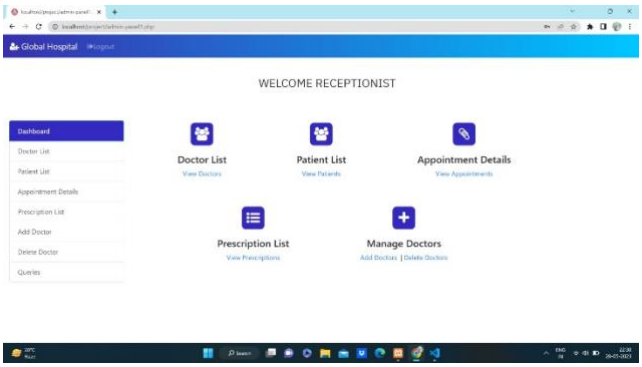
RESULTS



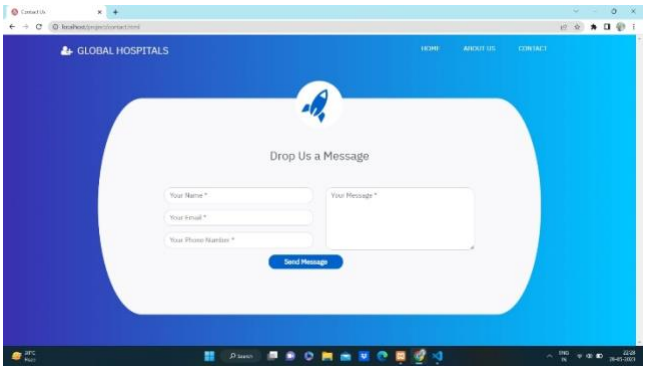
Login Page



Home page



Admin page



Contact Page

CONCLUSION

Since we are entering details of the patients electronically in the" Hospital Management System," data will be secured. Using this application, we can retrieve patient's history with a single click. Thus, processing information will be faster. It guarantees accurate maintenance of patient details. It easily reduces the book keeping task and thus reduces the human effort and increases accuracy speed. Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current tests is determined.

References

[1] Jha AK, Doolan D, Grandt D, Scott T, Bates DW. The use of health information technology in seven nations. Int J Med Inform. 2008;77(12):848-854.

[2] Blumenthal D, Tavenner M. The "meaningful use" regulation for electronic health records. N Engl J Med. 2010;363(6):501-504.

[3] Adler-Milstein J, Jha AK. HITECH Act drove large gains in hospital electronic health record adoption. Health Aff (Millwood). 2017;36(8):1416-1422.

[4] Dehaghani SH, Hassanzadeh A, Dehkordi MAB, Farzandipour M. Electronic health records: What are the most important barriers? A mixed-methods study exploring obstacles to adoption and use in Iranian hospitals. BMC Health Serv Res. 2020;20(1):615.

[5] Menachemi N, Collum TH. Benefits and drawbacks of electronic health record systems. Risk Manag Healthc Policy. 2011;4:47-55.

[6] Kruse CS, Beane A. Health information technology continues to show positive effect on medical outcomes: Systematic review. J Med Internet Res. 2018;20(2):e41.

[7] Dehghan L, Dehghan B, Asadi F, Mohammadi A. The impact of telemedicine on knowledge management in the healthcare system: A systematic review. Healthc Inform Res. 2019;25(1):10-20.

[8] Bashshur RL, Shannon GW, Smith BR, et al. The empirical foundations of telemedicine interventions for chronic disease management. Telemed J E Health. 2014;20(9):769-800.