IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

Hospital Management System

Vidya Shinde[1], Trupti Sande[2], Sanika Vadagave[3], Lect. S. S. Naik[4]

[1,2,3]Student, Dept. of Computer Technology, B.V.J.N.I.O.T, Pune, Maharashtra, India.

[4]Lecturer, Dept. of Computer Technology, B.V.J.N.I.O.T, Pune, Maharashtra, India.

Abstract: The purpose of the project entitled as "Hospital Management System " is to computerize the Front Office Management of Hospital to develop software which is user friendly, simple, fast, and cost effective. It deals with the collection of patient's information like add patient, update patient, delete patient, search patient, view patient diagnosis, etc. Traditionally, it was done manually. The main function of the system is register and store patient details and doctor details and retrieve these details as and when required, and also to manipulate these details meaningfully The Hospital Management System can be entered using a username and password. It is accessible by an Admin, Doctor & Receptionist. Only they can add data into the database. The data can be retrieved easily. The data is well protected for personal use and makes the data processing very fast. The Government of India has still aimed at providing medical facilities by establishing hospitals. The basic working of various hospitals in India is still on paper as compared to hospitals in European countries where computers have been put in to assist the hospital personnel in their work. The concept of automation of the administration and management of hospitals is now being implemented in India also, with large hospitals like APOLLO and AIIMS in Delhi, ESCORTS in Chennai, having automated their existing system. Computers are not only used to increase the efficiency in all fields ranging from fixing the appointment with the Doctor to keeping the record of the Patient.

KeyWords: Computerize, Patient,Doctor

1.INTRODUCTION

This project is a web-based hospital management system for an existing system. The goal of the project is to provide an online application on the Java platform. The project's hospital management system includes patient registration, storage of their details in the system, as well as computerized invoicing in the pharmacy and laboratory. The software can assign a unique ID to each patient and automatically store the details of each patient and staff. It includes a search function to find out the current status of each room. Users can search doctor availability and patient details by ID. Hospital management system can be entered with username and password. It can be advised by the administrator or the front desk. Only they can add data to the database. Data can be recovered easily. The interface is very user-friendly. The data is well protected for personal use and the data processing is very fast. Powerful, flexible and easy to use hospital management system. It is designed and developed to deliver truly imaginable benefits to hospitals. The hospital management system is designed for multi-specialty hospitals, including many hospital operations and management processes. It is an end-to-end integrated hospital management system that provides relevant information throughout the hospital for effective decision making in critical patient care, hospital management and financial accounting. Main. Primarily. Basically. , in a continuous process. Hospital Management System is a software suite designed to enhance the quality and management of hospital management in the areas of clinical process analysis and activity-based costing.Hospital Management System is a web application project developed for online hotel service. The system is a field that provides an online platform for patients and diagnoses treatment tasks according to patients' daily needs, generates reports, sales invoices, and creates patient maintenance records.

1.1Objective

1) The Hospital Management system is designed for any hospital to replace their existing manual paper based system. The system is used to control the information of patients as well as doctors.
2) Recording information about the Patients that come.
These are the various jobs that need to be done in a Hospital by the operational staff and Doctors. All these works are done on paper.

1. LITERATURE SURVEY

1.1 Related Work

"Intelligent Hospital Management System (IHMS)" : Mr.Baki Koyuncu , Mr.Hakan Koyuncu

An intelligent hospital information management system was developed to assist the patient at the front desk of a hospital.

DOI: 10.17148/IJARCCE.2022.114149

The patient will be able to learn about the doctors, appointment times, relevant departments, laboratory tests and the specific medicine about his/her medical situation. System will provide an intelligent front desk information service for the patients at the hospital entrance. It will also provide software assistance for the doctors to diagnose easily and rapidly by using the program's decision mechanism.

"Smart Hospital Management System: An integration of enterprise level solutions utilizing open group architecture framework (TOGAF)" : Mr.Zenon Chaczko , Mr.Christopher, Mr. Avtar Singh Kohli, Mr. Venkatesh Mahadevan

. This paper introduces the problem space/scenarios, constraints, requirements, enablers, risks, sample legacy application architectures and proposed integration solution presented with TOGAF components. The growing number of waiting lists, rising pressure on medical professionals and accountability for medical negligence are only part of the motivation to take initiative towards holding a core model integration strategy in various legacy infrastructure systems.

"**RFID based smart hospital management system: A conceptual framework" : Nadeem Mahmood , Asadullah Shah , Ahmad Waqas, Zeeshan Bhati**

The integration of information and communication technology (ICT) in the healthcare sector has been one of the important areas of research since the last two decades. The application of RFID (Radio Frequency Identification) technology is widely used in the healthcare sector to provide better, reliable and secure services. RFID systems are integrated into hospital information systems and provide full automation and streamline the important modules of patient identification, staff allocation, doctors, medicines and treatments. In this paper, we propose RFID based conceptual framework for smart hospital management system which provides a safe and secure patient data management system. We also highlight the importance of RFID in the healthcare domain with the help of an example case study with a working prototype application.

“Mobile Application for Hospital Management System" : Ponmalar A, Maansi S, Shalini M, Rinthya Madhavan

Several devices are interconnected using the Internet of things. Sensors integrated with things to communicate with one another. Device communication is automated in Chatbot. In this paper, mobile applications are proposed based on how the hospitals are connected with the patients by continuous monitoring their health condition. This application includes chatbot, Bigg Data, and sensor tracking devices.

"Hospital Management and Scheduling with Multi Agents Approach" : Kristijan Cincar

The aim of this paper is to present a multiagent hospital planning system. Doctors' working hours are determined based on uncertain service time, patient arrival time, patient waiting time, and completion time used to evaluate this used data set in which there are 110,527 medical appointments with the 14 related variables. Several of these variables are used in the following hospital sections: Hypertension, Diabetes, Alcoholism, where each patient's ap-pointment adds a portion of priorities, to get the optimal cost for hospital scheduling.

1.2 Problem Statement

It takes more time and effort when all the procedures are done manually. In order to reduce the consumption of human time and effort, the web application “Hospital Management System” can be applied to basic daily needs. Where manual procedures exist. The aim of this project is to reduce the consumption of human time and effort. This application provides a user-friendly interface.

2.3 Proposed System

Hospital management system is designed for any hospital to replace their existing manual paper system. The new system aims to control the information of patients as well as doctors. These services should be provided in an efficient and cost-effective manner, with the aim of reducing the time and resources currently required for such tasks. The complete set of rules and procedures related to the daily operations of the hospital and the generation of reports is known as the “Hospital Management System”. It is a computerized management system. The system also keeps records of the organization’s hardware assets in addition to its software. The proposed system would keep track of doctors, patients and receptionists. This project has GUI based software that will help to store, update and retrieve information through various user-friendly, menu-oriented modules.

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

4.WORKING METHODOLOGY

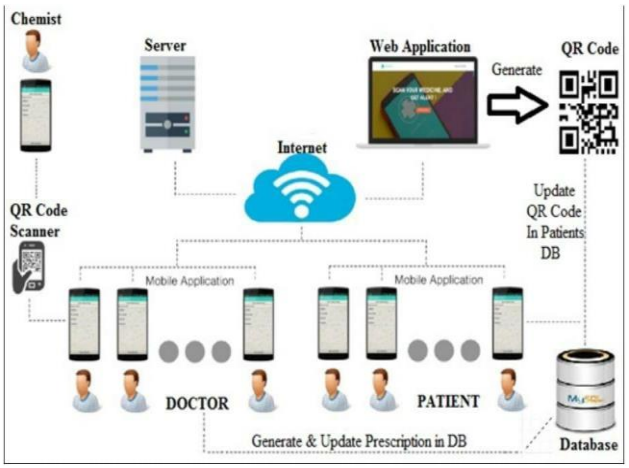


Fig-4. 1 Architecture Diagram Of proposed system

Working Methodology

4.1 Admin module:

• To manage department of hospitals, user, doctor, insurance, pharmacist, appointment accounts.
•To watch appointment of doctors

4.2 User module (patient):

• View appointment list and status with doctors

• View prescription details
• Manage own profile

4.3 Doctor module:

• Manage patient. account opening and updating
• Create, manage appointment with patient
• Create prescription for patient
• Provide medication for patients like treatment

4.4Insurance module:

• Manage patient. account opening and updating
• Provide medication policy according to patient prescription
• Manage patients policies
• Manage own profile

4.5 Pharmacist module:

• Maintain medicine
• Watch prescription of patient
• Provide medication to prescriptions

5. Module Implementation

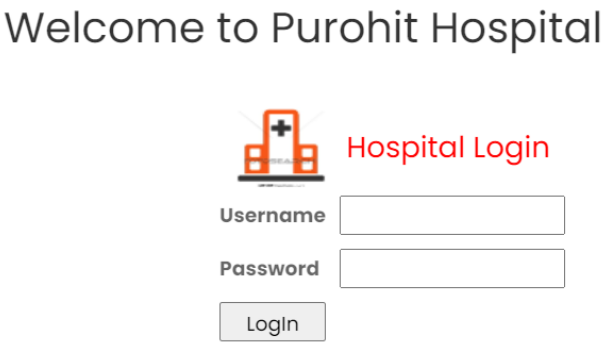
5.1 Hospital Login

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

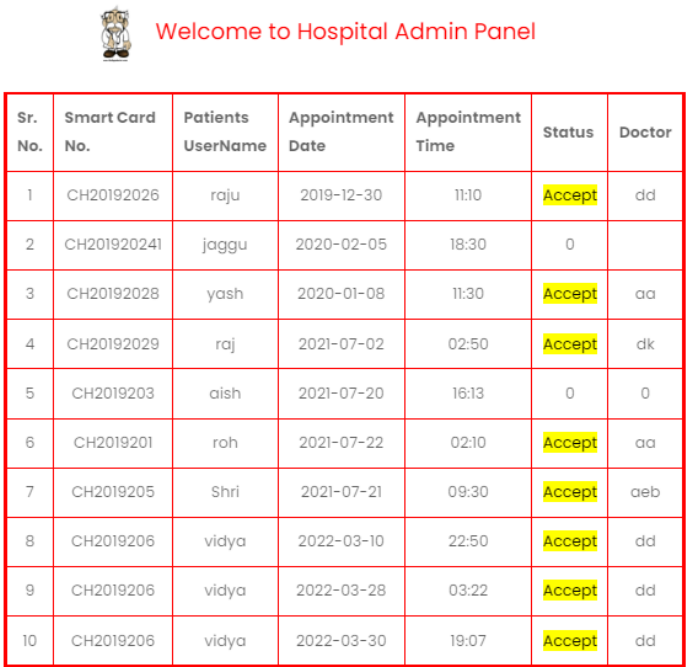
International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

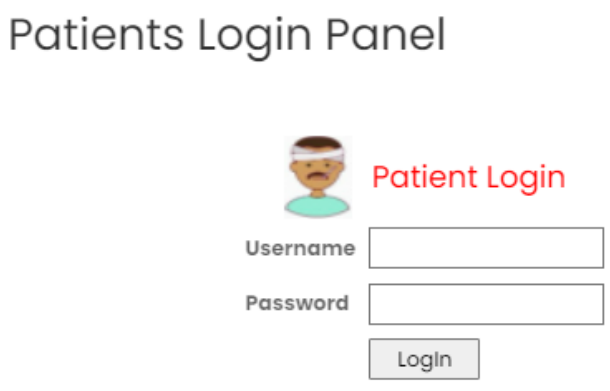


5.2 Hospital Admin Panel



Sr. No.	Smart Card No.	Patients UserName	Appointment Date	Appointment Time	Status	Doctor
1	CH20192026	raju	2019-12-30	11:10	Accept	dd
2	CH201920241	jaggu	2020-02-05	18:30	0	
3	CH20192028	yash	2020-01-08	11:30	Accept	aa
4	CH20192029	raj	2021-07-02	02:50	Accept	dk
5	CH2019203	aish	2021-07-20	16:13	0	0
6	CH2019201	roh	2021-07-22	02:10	Accept	aa
7	CH2019205	Shri	2021-07-21	09:30	Accept	aeb
8	CH2019206	vidya	2022-03-10	22:50	Accept	dd
9	CH2019206	vidya	2022-03-28	03:22	Accept	dd
10	CH2019206	vidya	2022-03-30	19:07	Accept	dd

5.3 Patient Login



IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

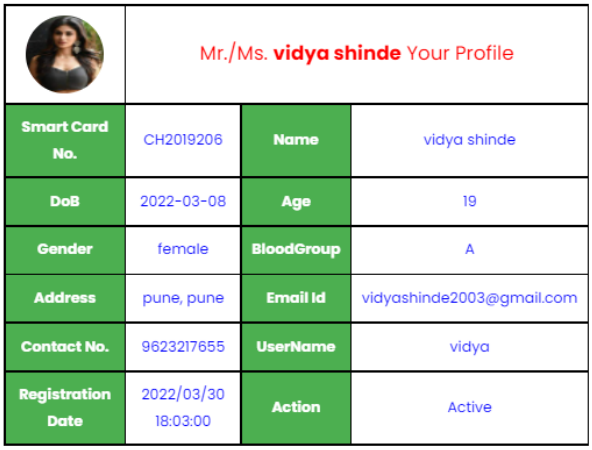
International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

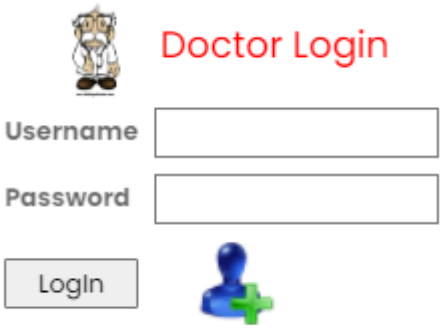
5.4 Patient Profile

WELCOME



5.5 Book Appointment

5.6 Doctor Login



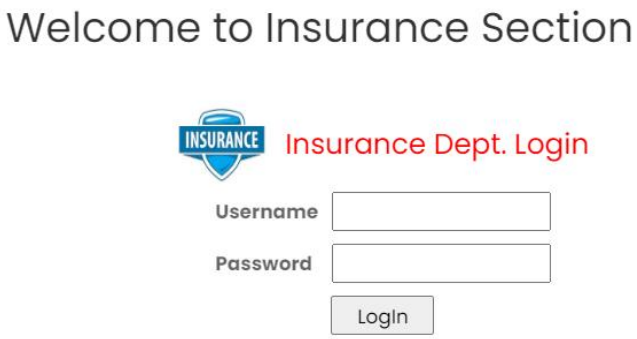
IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

5.7 Insurance Login



5.8 Pharmacy Login

FUTURE SCOPE

A recommendation system that helps manage day-to-day functions such as patient check-ups, admission management and overall management of different departments can be easily implemented with greater accuracy after hospital software installation.

CONCLUSION

Since we enter patient data electronically into the “Hospital Management System”, the data will be kept confidential. Thanks to this app we can retrieve the patient’s history with just one click. Thus, processing information will be faster. It ensures accurate maintenance of patient details. It easily reduces the bookkeeping task and thus reduces human effort and increases accuracy speed.

REFERENCES

1. Binstock, Andrew (May 20, 2015). "Java's 20 Years of Innovation". Forbes. Archived from the original on March 14, 2016. Retrieved March 18, 2016.

2. Herbert Scheldt, Java Complete Reference, Fifth Edition, Tata McGraw Hill Edition.

3.https://mocdoc.in/blog/a-detailed-view-of-hospital-management-system-hms

4.https://www.cronj.com/blog/what-is-hospital-management-system-features-modules-uses-blog

5.https://www.tutorialspoint.com/mysql/index.htm

6.https://www.w3schools.com/java/java_intro.asp

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.114149

BIOGRAPHIES

Student - **Ms.Vidya Shinde**,
Dept.of Computer Technology
B.V.J.N.I.O.T,Pune

Student - **Ms.Trupti Sande**,
Dept.of Computer Technology,
B.V.J.N.I.O.T,Pune

Student - **Ms.Sanika Vadagave**,
Dept.of Computer Technology,
B.V.J.N.I.O.T,Pune

Lecturer-**Ms.Suparna Naik**,
Dept.of Computer Technology,
B.V.J.N.I.O.T,Pune