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Hospital Management System

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Abstract: *Our project Hospital Management system is about registration of patients, storing details of patients into the system and booking appointments of them with doctors. In our software gives unique id for every patient and stores the data of every patient and the staff automatically. User will be able to search availability of a doctor and patient detail using id. The entry point of the Hospital Management System is login using username and password. This all information is accessible by an administrator or receptionist and they can add data into database. The data can be retrieved easily. The interface is very user-friendly. The data processing is very fast and well protected for personal use. It is having mainly two modules, one is at Administration and user, i.e., of patients and doctors. The Application maintains authentication in order to access the application. Administrator task includes managing doctors information, patient's information. To achieve this, aim a database was designed for patient and other is for doctor which is the admin can access. The user complaints are referred by authorities. The Patient modules include checking appointments, prescription.*

Keywords: *Hospital Management system*

I. INTRODUCTION

This web-application will help the hospitals to be more efficient indoing the registration of the patients, managing their request and maintain records. It gives right to doctor and admin to view and modify the appointments.Themain aim of these project is computerize all details regarding patient detailsand hospital details. This system is an application that serveshospitals, clinic, dispensaries or other health institutions. The intention of themanagement system is to increase patient number that can be treated and managed properlyproperly.If we use traditional file-based system, management of the system has toput much effort on securing the files. This file-based system can be easily damagedby fire, insectsand natural disasters. There is also chance of loss of data and information.In our application includes two modules-admin module and user module.In our project, admin is not only viewing the data but also add, delete or edit the records. This software will also help admin to manage the transaction of the patient and generateconfirmations for the same. The admin can manage andupdate in confirmation about doctors. Theaccess of the user module is given to both doctors and patients. Thedoctor can confirm and/or cancelappointments. The doctors can even addprescriptions for their patients using our application. The patients are able to register themselves and make transactions, and can even cancel appointments with the doctors. They can find out details about the previoustransactions made by them.

II. LITERATURE REVIEW

Another significant obstacle faced by current hospital management systems pertains to optimizing operational efficiency and reducing waiting times across various processes, departments, and individuals. This paper addresses the shortcomings of current systems and suggests the implementation of a framework based on RFID (Radio Frequency ID) and wireless sensors. This framework enables real-time tracking of location and information management. The hospital management system focuses on tracking and managing the movement of hospital assets, personnel, and patients as they navigate through established procedures during their daily activities. It encompasses visual simulation and analysis capabilities to identify areas of improvement in ongoing operations, allowing for adjustments that enhance process efficiency and service quality. Hospitals, as intricate organizations, not only require technical expertise for healthcare treatment and prevention but also rely on effective management practices to enhance their operational efficiency in their

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primary objectives. Nevertheless, conflicts often arise between technical and managerial domains in administrative matters.

III. PROPOSED SYSTEM

The Hospital Management System is specifically developed to replace the traditional manual paper-based systems in any hospital setting, offering a more efficient and advanced alternative. The primary objective of the new system is to manage and regulate the information of both patients and doctors, ensuring efficient control and accessibility. The aim is to deliver these services efficiently and cost-effectively, striving to minimize the time and resources currently expended on these tasks.

The "Hospital Management System" refers to the comprehensive collection of regulations and protocols governing the daily operations of a hospital, as well as the generation of reports. It is a computerized management system. In addition to managing software assets, this system also maintains records of hardware assets within the organization. The proposed system will effectively track and manage information related to doctors, patients, and receptionists. The project incorporates GUI-based software, which offers user-friendly menu-driven modules for storing, updating, and retrieving information efficiently.

3.1 Objectives of Proposed System

i. The proposed system is expected to achieve a higher level of accuracy compared to existing systems.
ii. The proposed system ensures high reliability by effectively storing information in a secure manner.
iii. The system facilitates rapid and efficient retrieval of information, ensuring timely access to the required data.

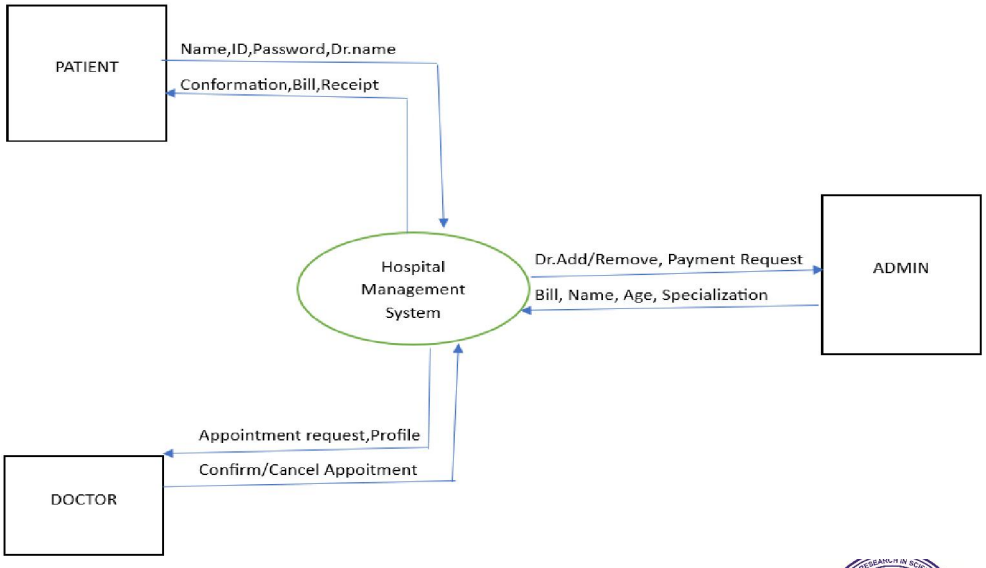
Advantages:

1. Low maintenance cost.
2. The system effectively handles large volumes of data without any limitations.
3.The system enables seamless conversion of data into meaningful information with ease.
4.With the implementation of proper backup measures, the system significantly reduces the susceptibility of data corruption.
5. The system has the capability for expansion and facilitates seamless data Communication

Disadvantages:

1. High starting cost requires.
2. Additional manpower is necessary.

IV. DATA FLOW DIAGRAM



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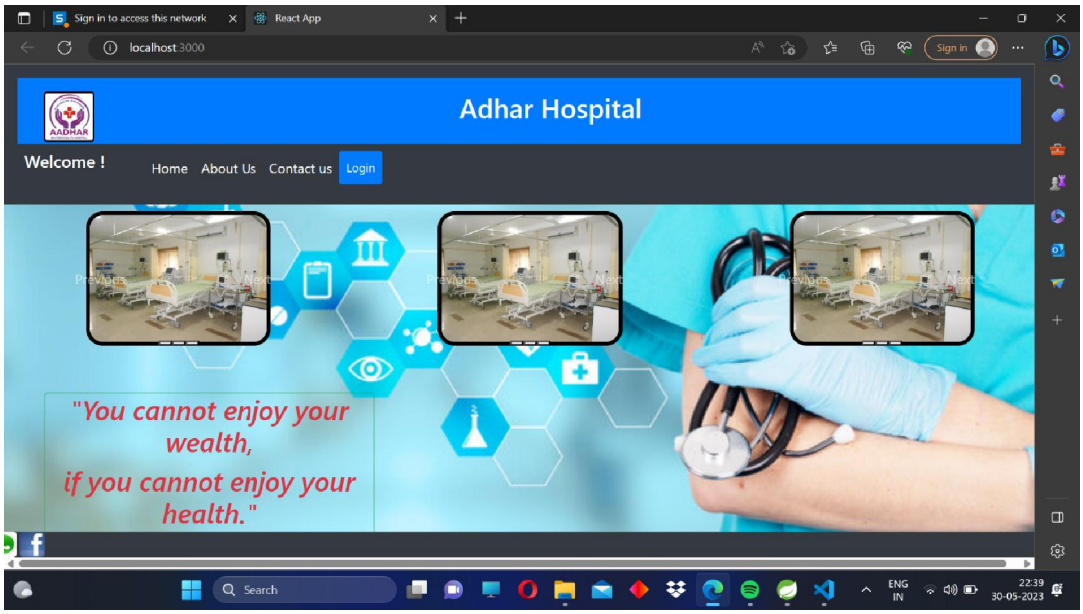
V. TOOLS AND TECHNOLOGIES USED

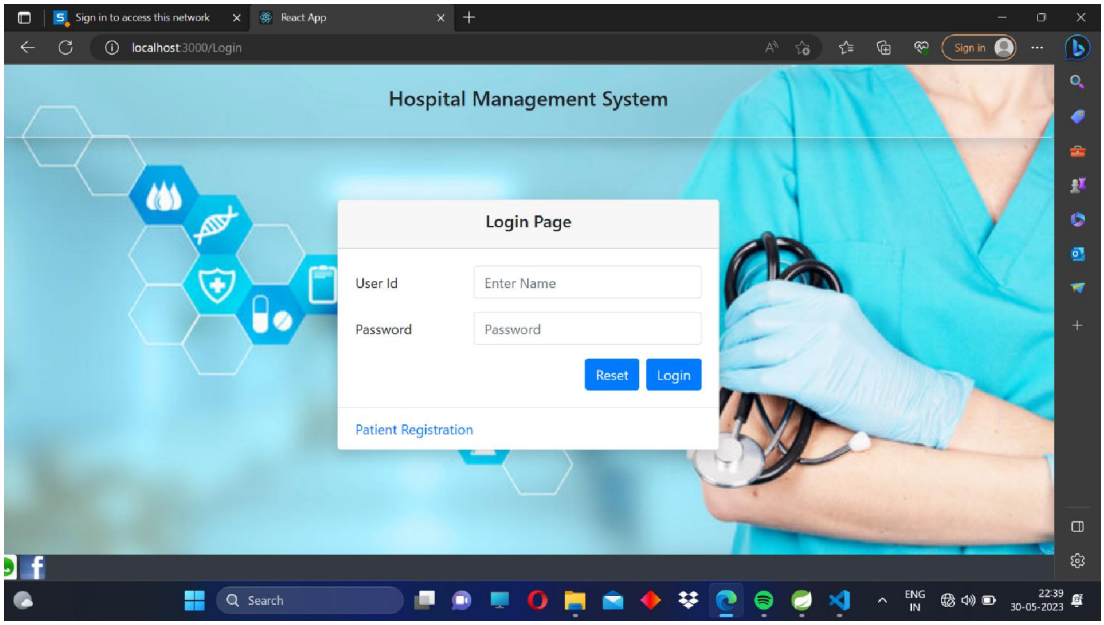
- Sprint tool suites or Eclipse IDE
- JDK 1.8: To run this project you have JDK 1.8 version
- Tomcat 8: This project runs over the tomcat 8 server.
- MySQL: You need MySQL database for running this project
- MySQL JConnector: For making the connection from MySQL and java, we need it
- Node Version 10: For configuring ReactJS project
- ReactJS CLI: For running the ReactJS project

VI. IMPLEMENTATION

1. Homepage:



2.Login Popup:



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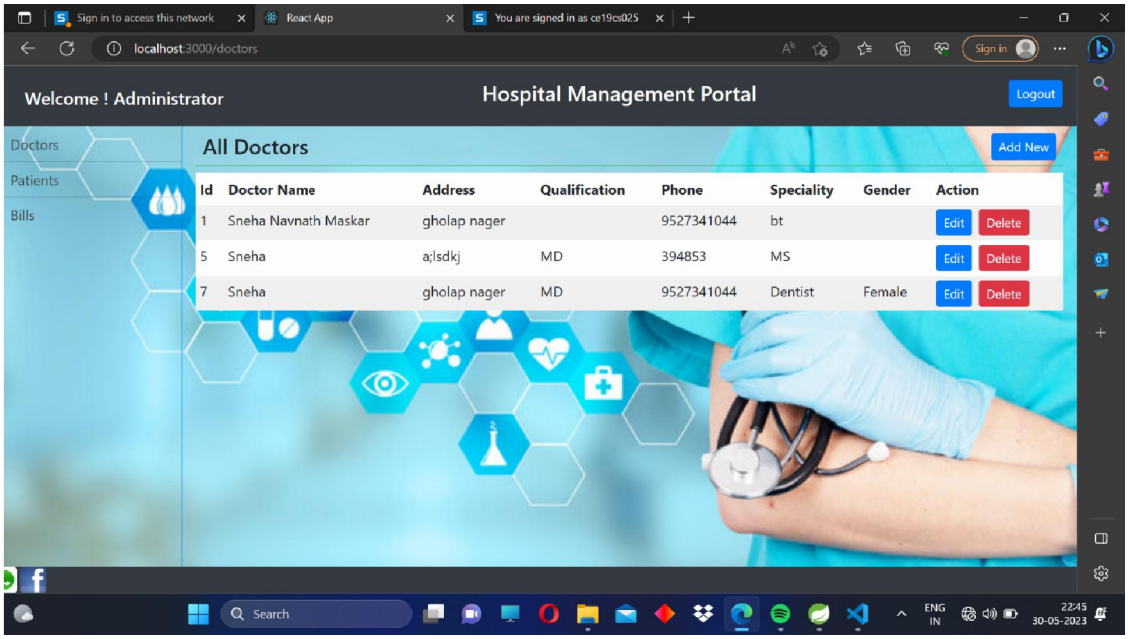
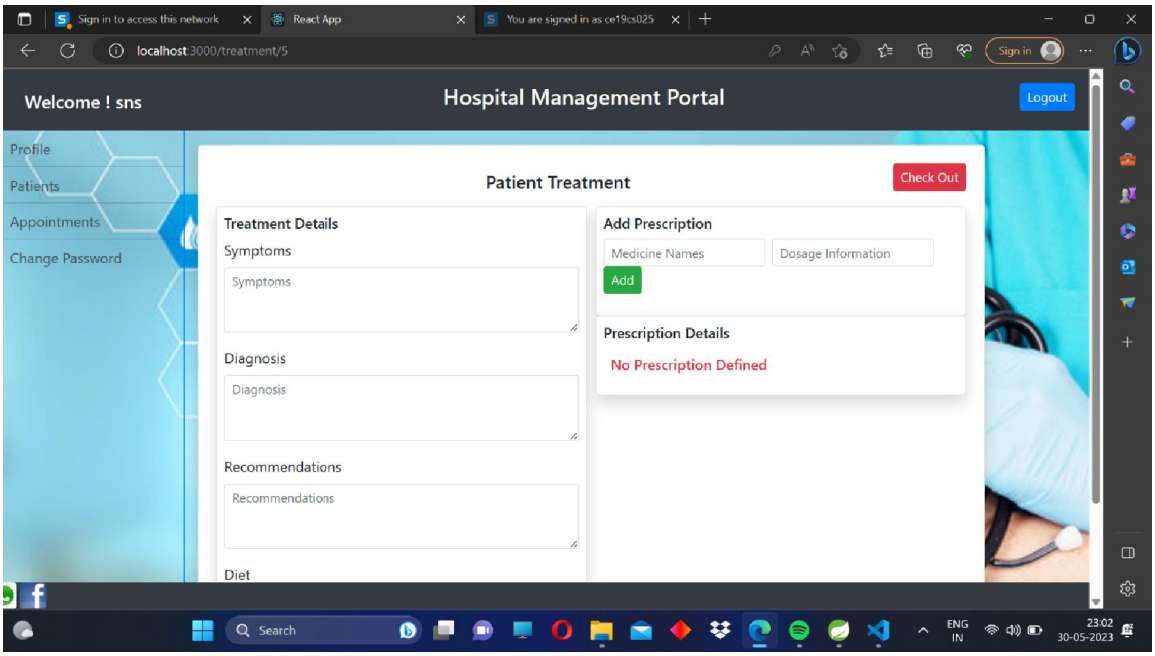
3. Doctor View:



4. Treatment:



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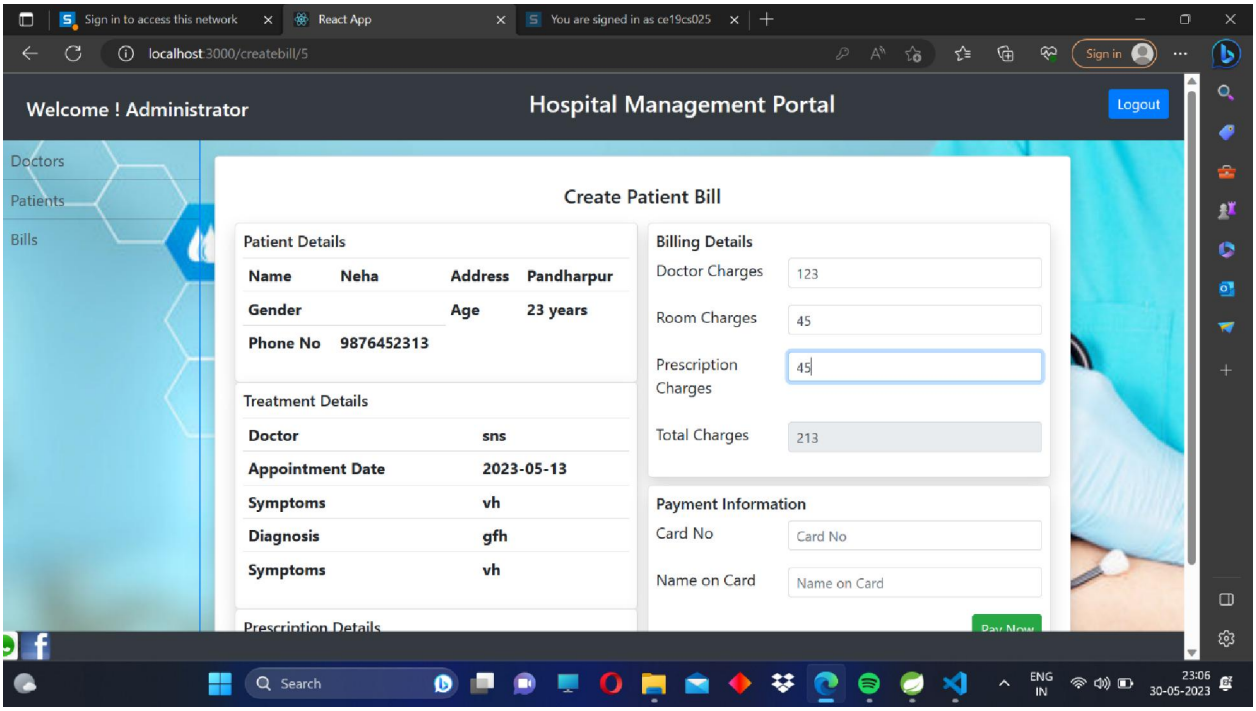
5. Bill:



VII. FUTURE SCOPE

Currently, the receptionist and operational staff handle all these tasks manually, resulting in a significant amount of paperwork that requires careful management and attention. Doctors have to remember various medicines Due to the limitations of human memory, healthcare professionals often encounter challenges in recalling all available diagnosis options, which may result in overlooking potentially better alternatives at the time of decision-making. Due to constraints in time and resources, we have focused on incorporating the core activities within the Hospital Management System project. However, great attention has been given to ensuring that the system is efficient and user-friendly.

The majority of the analysis and interpretations presented in this report rely on secondary data acquired, which may contain inherent inaccuracies and errors. Finally, although due care has been taken The report itself may contain typing and compilation errors, which can occur inadvertently during the process. The tasks specified were not well defined because nothing was mentioned regarding validations in the project. While extensive efforts were made to thoroughly test the software, any potential limitations do not affect the overarching objective of the project. Moreover, its high level of user-friendliness makes it an ideal choice for personnel across diverse backgrounds.

VIII. CONCLUSION

With the electronic entry of patient information into the Hospital Management System, data security is ensured. By utilizing this application, we can effortlessly access a patient's medical history with just a single click. Thus, processing information will be faster. It guarantees accurate maintenance of patientdetails. By simplifying the bookkeeping process, the Hospital Management System significantly diminishes the burden of manual tasks, thereby minimizing human effort and enhancing both accuracy and speed.

The Hospital Management System plays a vital role in maintaining comprehensive information about doctors, patients, hospital staff, and more. It is evident that the utilization of the Hospital Management System project greatly simplifies work processes, making them more efficient and user-friendly and we save lot of time. By implementing the Hospital Management System, hospital administrators can achieve substantial enhancements in operational control, leading to the efficient streamlining of various hospital operations. The automation of patient information collection, collation, and retrieval through the Hospital Management System enables healthcare providers to enhance their response time to

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patient care needs, thereby improving overall efficiency. Accounting sometimes becomes awfully pathetic and complex. This product will eliminate any such complexity.

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