VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi-590018

A
Database Management System
Mini Project Report
On

"HOSPITAL MANAGEMENT SYSTEM"

Submitted in Partial fulfilment of the Requirements for the V Semester of the Degree of

Bachelor of Engineering
In
Information Science & Engineering

By

U Sumuk Patil
(1CR19IS167)
Yash Negi
(1CR19IS176)
Nikhil Raj Rauniyar
(1CR19IS181)

Under the Guidance of
Dr. Ganesh D R
Assistant Professor, Dept. of ISE

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CMR INSTITUTE OF TECHNOLOGY

#132, AECS LAYOUT, IT PARK ROAD, KUNDALAHALLI,
BANGALORE-560037

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BANGALORE-560037

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CERTIFICATE

This is to certify that the Database Management System Project work entitled **"HOSPITAL MANAGEMENT SYSTEM"** has been carried out by **U Sumuk Patil (1CR19IS167), Yash Negi (1CR19IS176)** and **Nikhil Raj Rauniyar (1CR19IS181)** bonafide students of CMR Institute of Technology in partial fulfilment for the award of **Bachelor of Engineering** in **Information Science and Engineering** of the Visvesvaraya Technological University, Belgaum during the year **2021-2022**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. This DBMS Project Report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

Dr. Ganesh D R
Assistant Professor
Dept. of ISE, CMRIT

Signature of HOD

Dr. M. Farida Begam
Professor, Head
Dept. of ISE, CMRIT

External Examiner

Name of the examiners — Signature with date

1.
2.

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, diagnosis details, 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 System input contains patient details, diagnosis details, while system output is to get these details on to the screen. The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The data are well protected for personal use and makes the data processing very fast.

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany a successful completion of any task would be incomplete without the mention of people who made it possible. Success is the epitome of hard work and perseverance, but steadfast of all is encouraging guidance.

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THANK YOU

U Sumuk Patil (USN-1CR19IS167)

Yash Negi (USN-1CR19IS176)

Nikhil Raj Rauniyar (USN-1CR19IS181)

Table of Contents

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1
INTRODUCTION

1.1 Introduction to DBMS

A database is simply an organized collection of related data, typically stored on disk, and accessible by possibly many concurrent users. Databases are generally separated into application areas. For example, one database may contain Human Resource (employee and payroll) data; another may contain sales data; another may contain accounting data; and so on. Databases are managed by a DBMS. Many Database Systems are being used which are in turn managed by many other Database Management Systems. A Database Management System (DBMS) is a set of programs that manages any number of databases. Basically, DBMS is a software tool to organize (create, retrieve, update and manage) data in a database. The main aim of a DBMS is to supply a way to store up and retrieve database information that is both convenient and efficient. By data, we mean known facts that can be recorded and that have embedded meaning. Database systems are meant to handle large collections of information. Management of data involves both defining structures for storage of information and providing mechanisms that can do the manipulation of those stored information. Moreover, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access.

1.2 Brief Outline of Project

Hospital Management System is a comprehensive tool for providing a portal for the simplified interaction between patients and doctors with the goal of facilitating easy-to-use interface. By using this project, patients can view the upcoming appointments using a valid account and it saves a lot of time as they can look for the medical records and doctors tending to them whenever they need from anywhere and they need not visit the Hospital in order to get the same required details.

A doctor willing to know his patients and their medical history can also access the system using their user account that they created. Both the patients as well as the doctors have the ability to add details, modify details, add the time slots , and look at all the appointments . The administrator would be a caretaker of the entire system responsible for important tasks of backing up the database and restoring an archived database if needed. The purpose of this project is to design, build and implement an Event coordinating system with anytime and anywhere access availability. All student and student information will be stored in a MySQL database and retrieved by PHP. Moreover, the system offers the authorization function to make sure that students can access their accounts only and all the other information is kept discrete.

1.3 PROJECT GOAL

The purpose of this project is to design, build and implement a Hospital Management system with anytime and anywhere access availability. The main objective of the project is to provide an easy registration process for the patients and for doctors to be able to check their appointments. This project is useful for doctors and patients for managing their records and appointments in the hospital in a simple and secure manner

1.4 SCOPE

The scope of the system is, this application will manage the information about various medical records, appointments and time slots provided by the doctors to the patients. This will greatly simplify and speed up the management process.

The scope of the project is:

- Hospitals
- Users:
    1. Patients
    2. Doctor
    3 Administrator

CHAPTER 2
SYSTEM REQUIREMENTS

A software requirement definition is an abstract description of the services which the system should provide, and the constraints under which the system must operate. It should only specify the external behaviour of the system. The requirements are specified as below:

2.1 USER REQUIREMENTS

- **Operating system:** Any OS
- **Processor:** Intel Pentium 4 or later
- **Memory:** 2GB Minimum
- **Application Window Size:** 1024*680 or larger (for best viewing)
- **Internet Connection:** Required

2.2 SOFTWARE REQUIREMENTS:

- **Database:** MYSQL Server.
- **Language:** HTML, PHP, CSS, React.js, Express, Node.js

CHAPTER 3
PROBLEM DESCRIPTION

HOSPITAL MANAGEMENT SYSTEM

This project implements a web system to provide an environment for the doctors, patients and the admin of the Hospital providing information and registration portal to enable a patient or a doctor to successfully add records and appointments . When doctors need to check the patient's medical history and records , they need to login to the webpage, then they can find the results in that in the result page. To do that this system uses the following tables to store the information.

- TABLE APPOINTMENT
- TABLE DIAGNOSE
- TABLE DOCSHAVESCHEDULES
- TABLE DOCTOR
- TABLE MEDICALHISTORY
- TABLE PATIENTSATTENDAPPOINTMENTS
- TABLE PATIENTSFILLHISTORY

The table details are as follows:

Table 3.1: APPOINTMENT

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(11)			No	None			Change Drop More
2	date	date			No	None			Change Drop More
3	starttime	time			No	None			Change Drop More
4	endtime	time			No	None			Change Drop More
5	status	varchar(15)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.2: Diagnose

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	appt	int(11)			No	None			Change Drop More
2	doctor	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
3	diagnosis	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
4	prescription	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.3: DOCSHAVESCHEDULES

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	sched	int(11)			No	None			Change Drop More
2	doctor	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.4: DOCTOR

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	email	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
2	gender	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
3	password	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
4	name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.5: MEDICALHISTORY

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(11)			No	None			Change Drop More
2	date	date			No	None			Change Drop More
3	conditions	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
4	surgeries	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
5	medication	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.6: PATIENTSATTENDAPPOINTMENTS

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	patient	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
2	appt	int(11)			No	None			Change Drop More
3	concerns	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
4	symptoms	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More

Table 3.7: PATIENTSFILLHISTORY

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	patient	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
2	history	int(11)			No	None			Change Drop More

CHAPTER 4
SYSTEM DESIGN

4.1 ER Diagram

An entity-relationship diagram (ERD) is a data modelling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD is a conceptual and representational model of data used to represent the entity framework infrastructure.

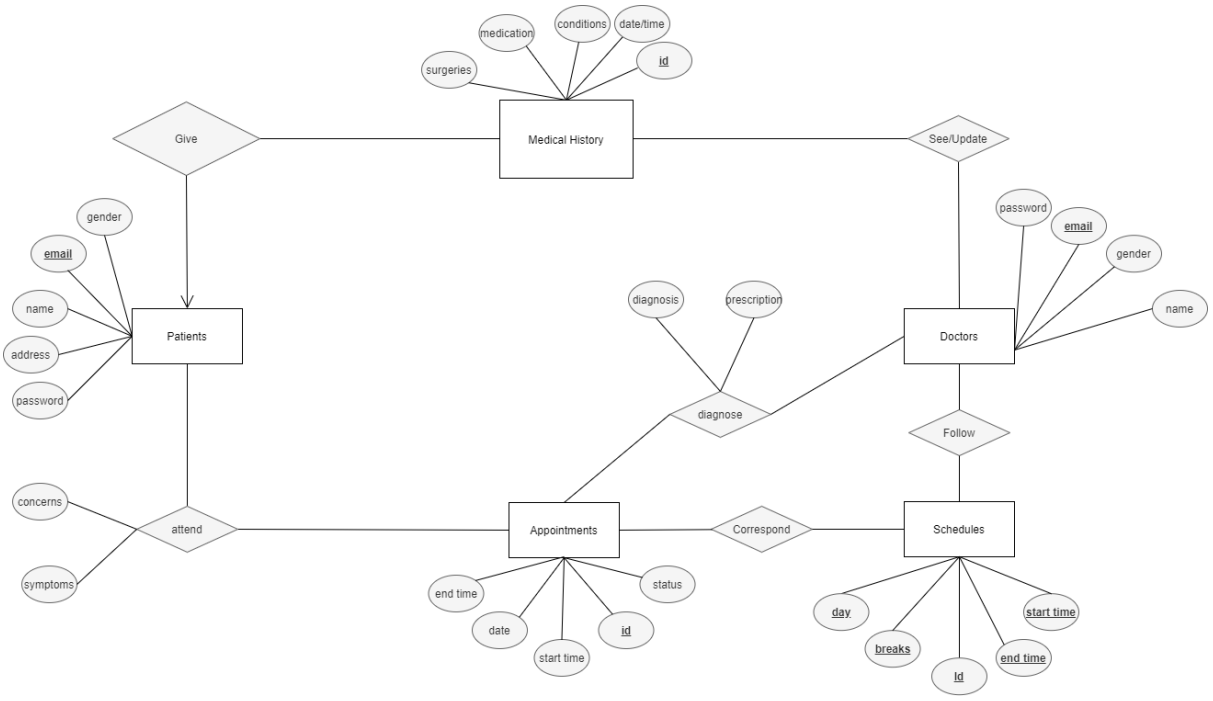

Figure 4.1: ER Diagram

4.2 Schema Diagram

A database schema is the skeleton structure that represents the logical view of the entire database. It contains a descriptive detail of the database, which can be depicted by means of schema diagrams.

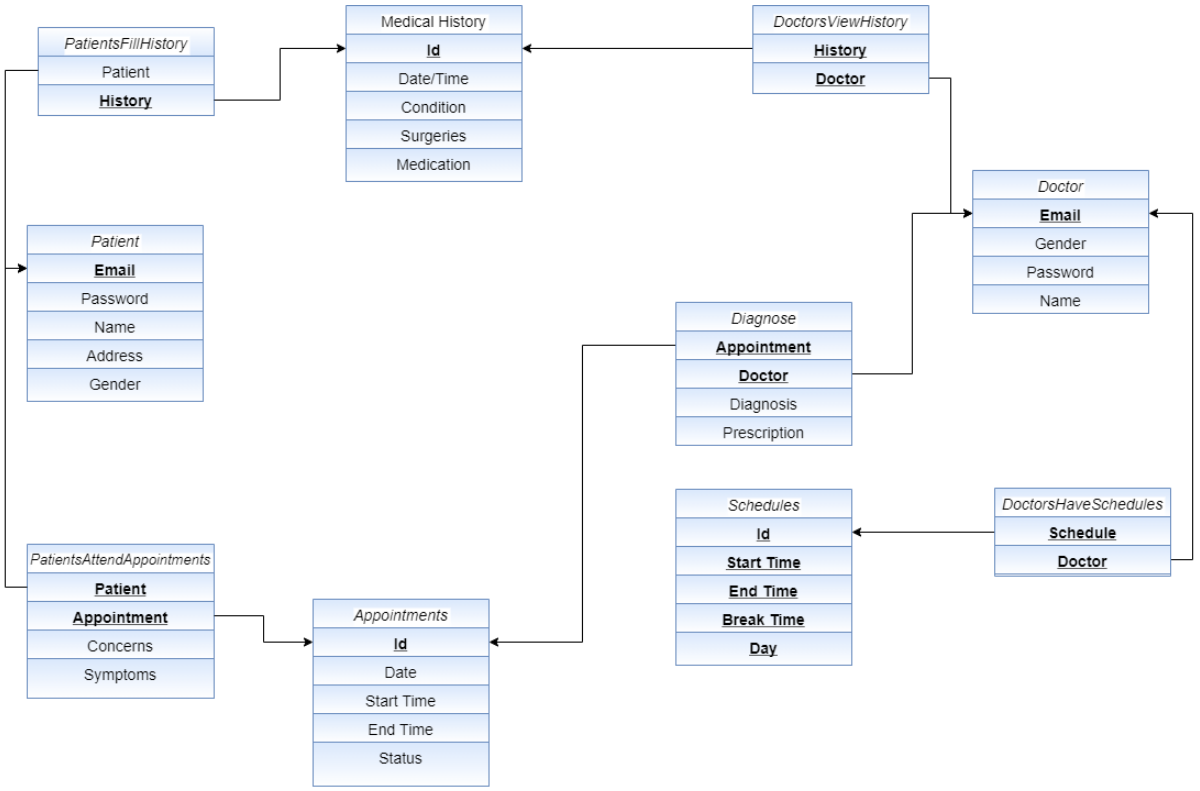

Figure 4.2: Schema Diagram

CHAPTER 5
IMPLEMENTATION

5.1 Introduction

PHP is a server-side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, and even build entire e-commerce sites. MySQL server is used for the database and MySQL workbench is used to manage the server and create the database.

5.1.1 PHP

PHP is a recursive acronym for ―PHP: Hypertext Preprocessor. It is integrated with a number of popular databases, including MySQL, Oracle, Sybase, Informix, and Microsoft SQL Server. PHP can handle forms, i.e. gather data from files, save data to a file, through email you can send data, return data to the user. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.

5.1.2 MYSQL

My-SQL is an oracle-backed open-source relational database management system (RDBMS) based on structured query language (SQL). MySQL runs on virtually all platforms. Although it can be used in a wide range of applications, MySQL is most often associated with web applications and online publishing. MySQL is based on a client-server model. MySQL server is available as a separate program for use in a client-server networked environment and as a library that can be embedded into separate application. SQL also supports a number of client and utility programs, command-line programs and administration tools such as MySQL Workbench.

5.2 Source Code

Index.php

```
<?php include('partials-front/menu.php'); ?>
                <div class="main-content">
                        <div class="wrapper">
                                <h1>EVENTS</h1>
                                <br><br><?php
         if(isset($_SESSION['login']))
        {       echo $_SESSION['login'];//Prints login successful message
                unset($_SESSION['login']);//Removes message when page is refreshed
        }?>  <br><br><?php
                $query= "SELECT * FROM events";
                $query_run=mysqli_query($conn,$query);
                $check_entries = mysqli_num_rows($query_run)>0;
        if($check_entries)
        {       while($row=mysqli_fetch_array($query_run))
                {       $event_id = $row['event_id']; ?>

<div class="col-4">
                <h2>Event Name: <?php echo $row['name'];?> </h2>
                <h2>Sport ID: <?php echo $row['sportid'];?> </h2>
<h3>Date and time: <?php echo $row['eventdt'];?></h3>
                <h3>Fee: <?php echo $row['fee'];?></h3>
                <h4>Venue:<?php echo $row['venue'];?> </h4>
```

```
<a href="<?php echo SITEURL; ?>register_event.php?event_id=<?php echo $event_id; ?>"
class="btn-primary">Register</a>
                    </div>
<?php       }    }
          else{
          echo "No events"; }
          ?>
```

Logout.php

```
<?php //Include constants.php for SITEURL
include('config/constants.php');
//1. Destroy the Session
session_unset();
session_destroy();//Unsets $_SESSION['user']
//2. Redirect to Login Page
header('location:'.SITEURL.'teacher/stud_login.php');
?>
```

CHAPTER 6
SCREENSHOTS

6.1 Module Screenshots

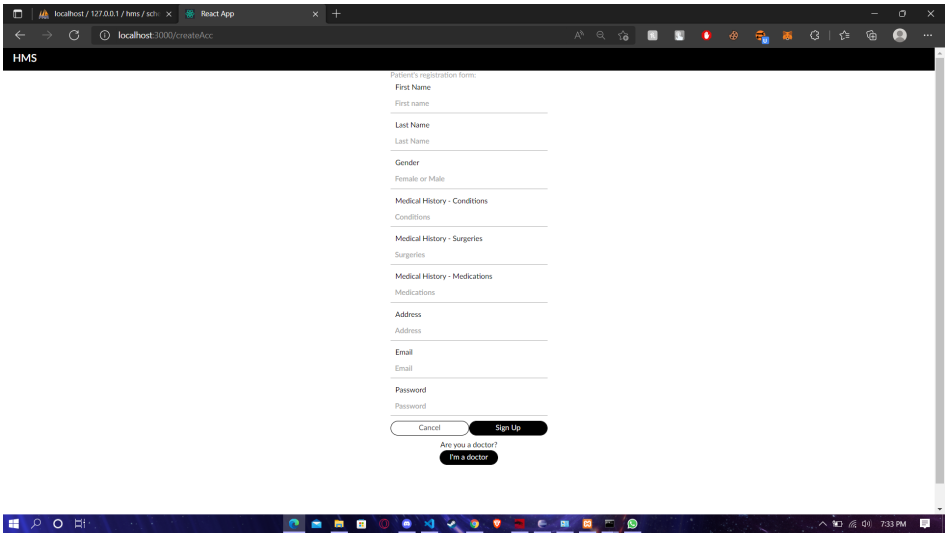

Figure 6.1: Registration Page

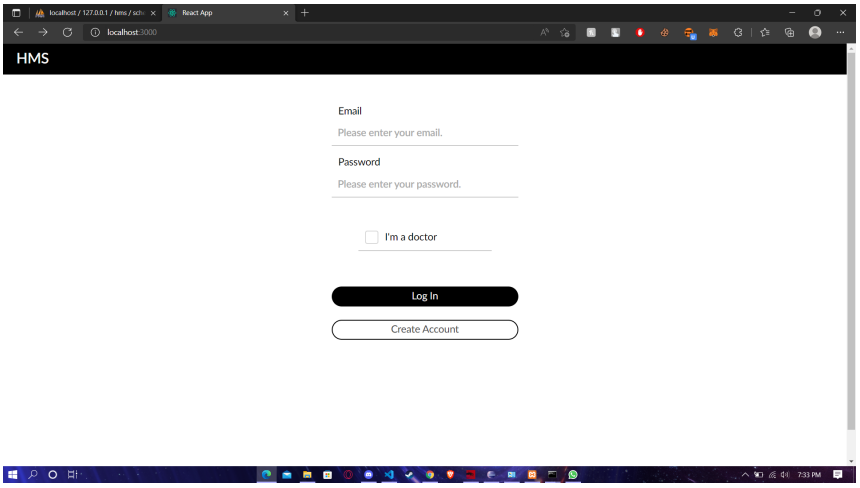

Figure 6.2: Login Page

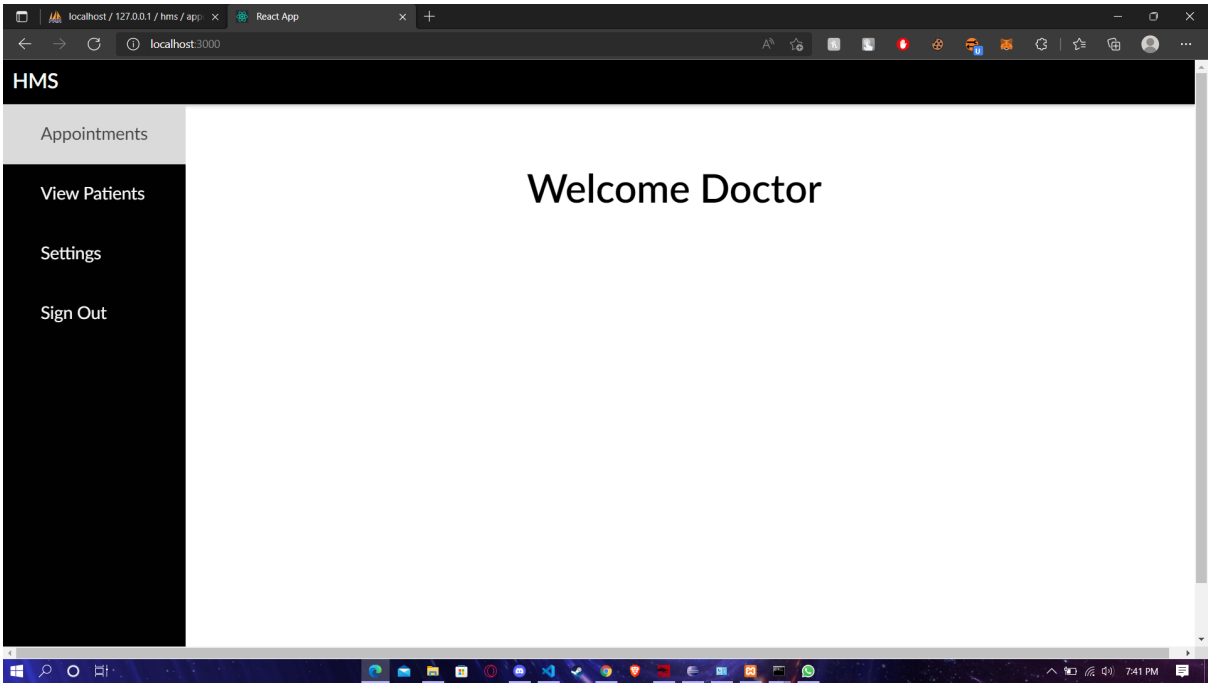

Figure 6.3: Welcome Page

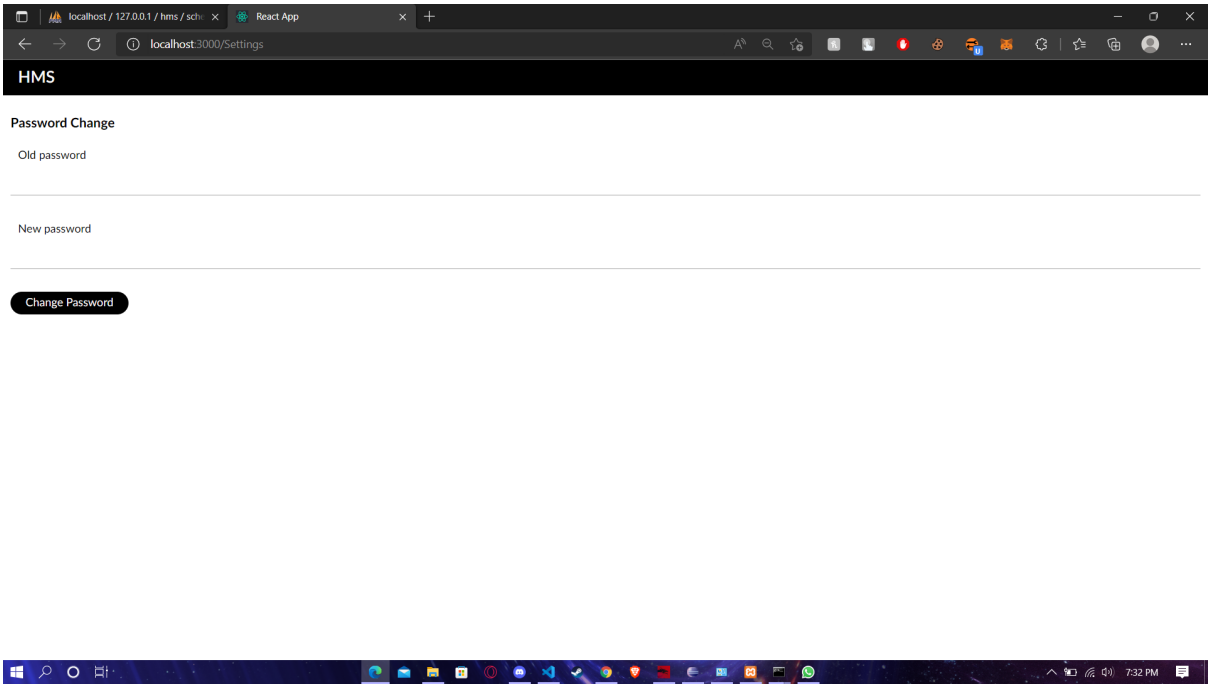

Figure 6.4:Password Page

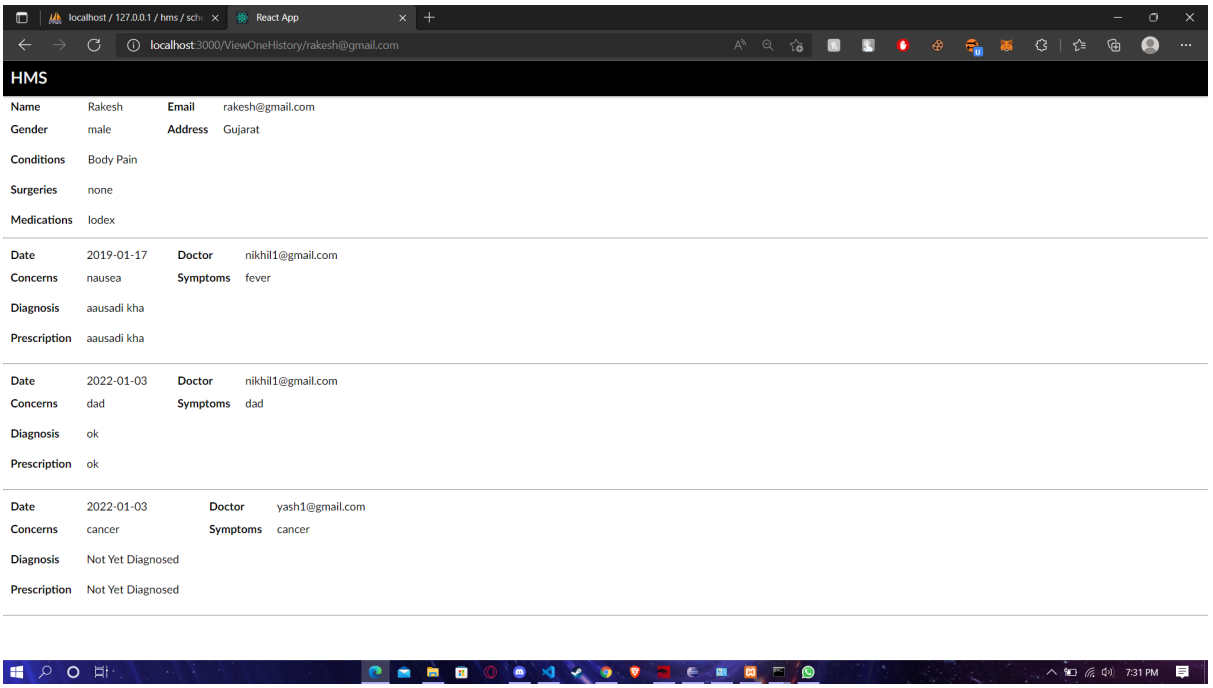

Figure 6.5: View Page

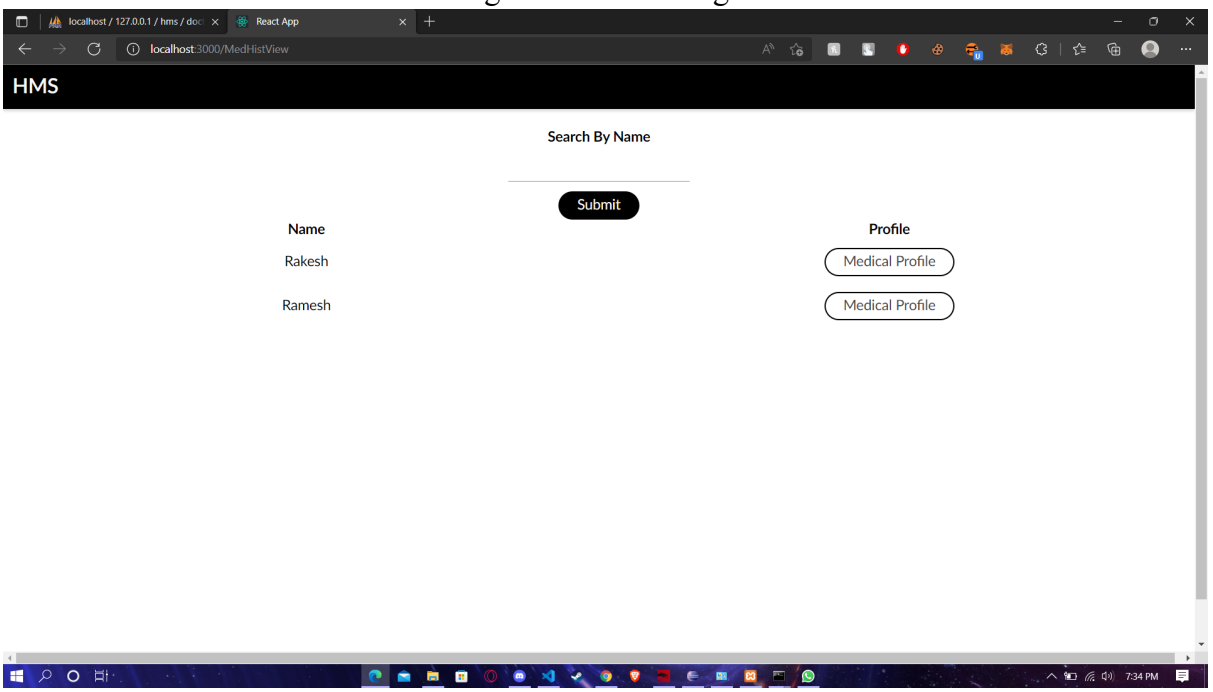

Figure 6.6: Search Page

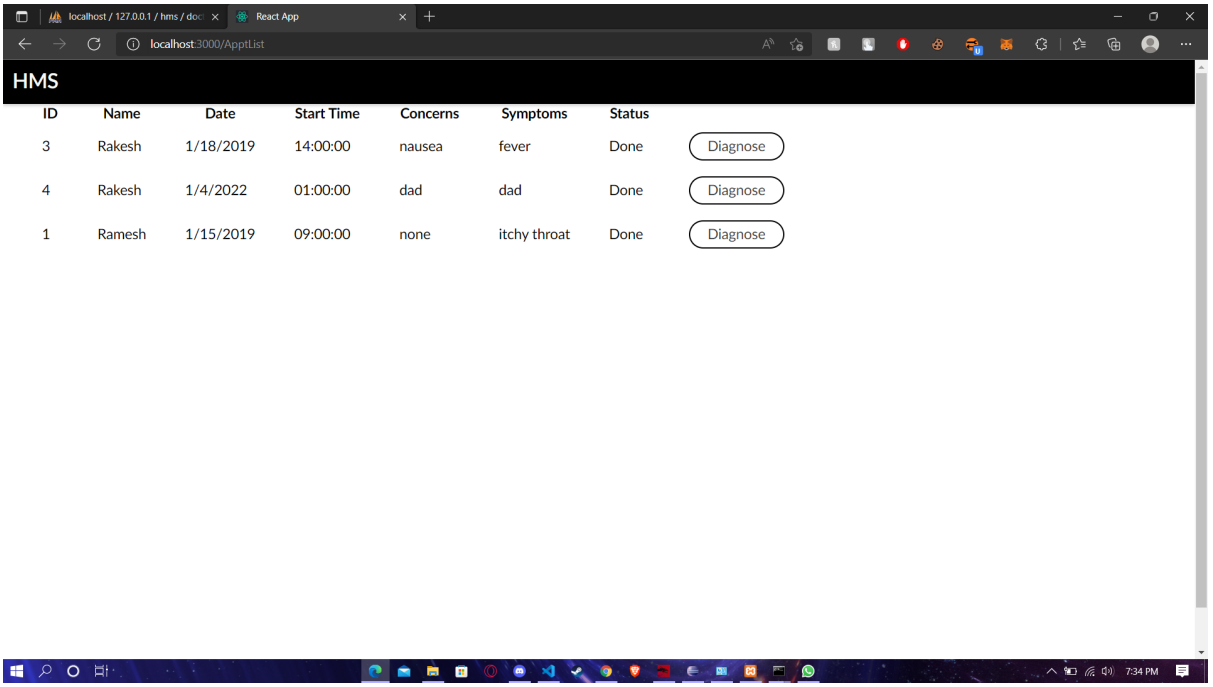

Figure 6.7: Diagnosis Page

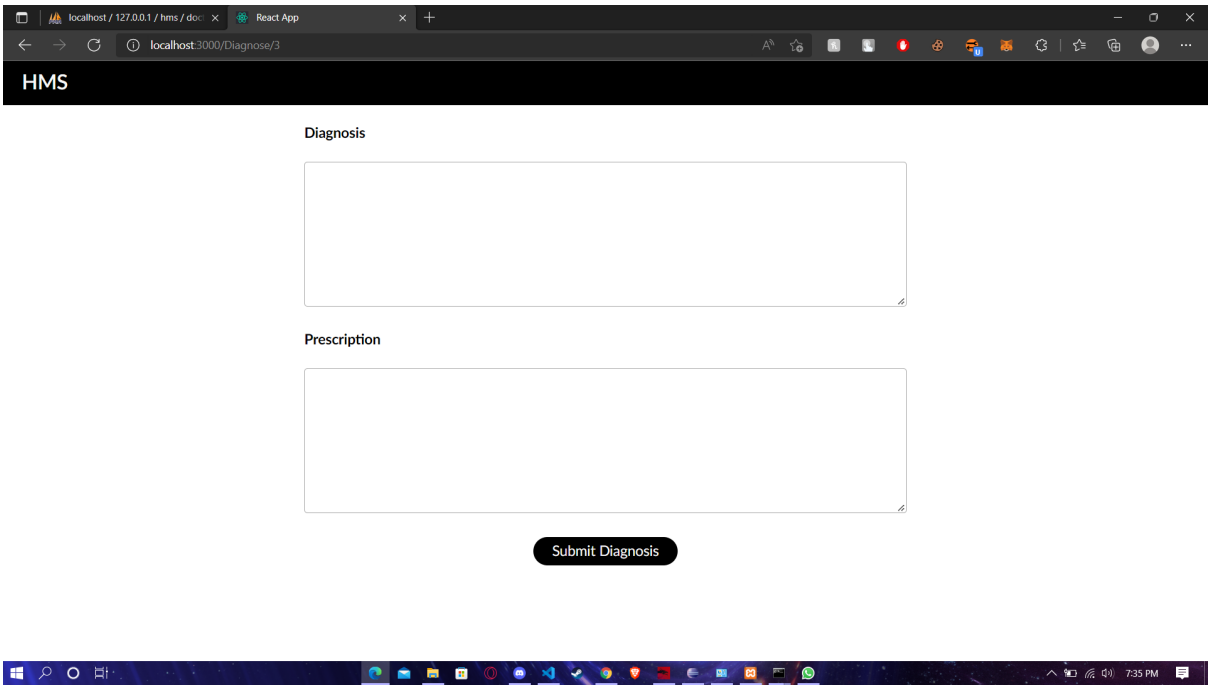

Figure 6.8: Prescription Page

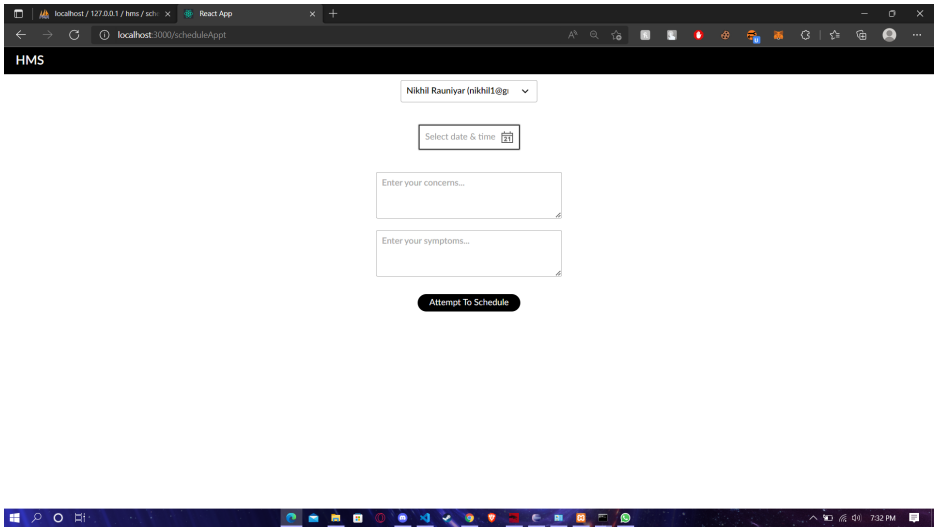

Figure 6.9: Make AppointmentPage

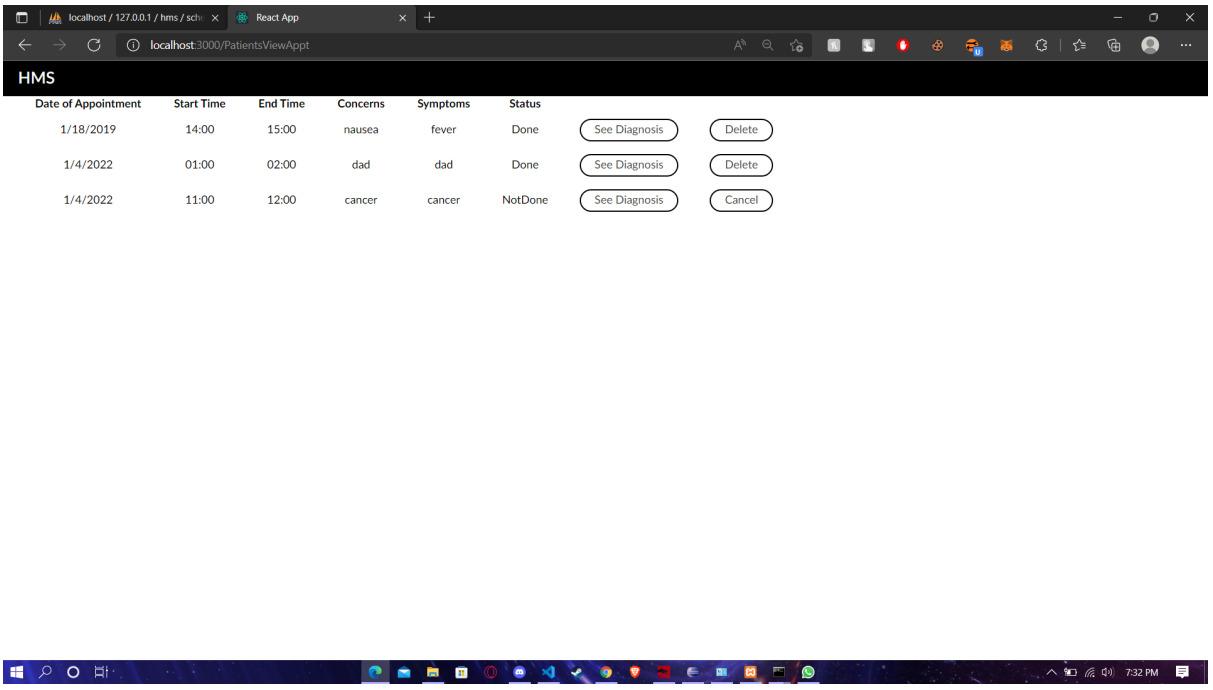

Figure 6.10: View Appointment Page

CHAPTER 7
CONCLUSION

This project is a humble venture to make a user-friendly Hospital Management service for patients and doctors. The Project —Hospital Management System is designed to make a blog website that provides a good environment that all the patients and doctors can use. This project has the outcome of theHospital management system implementation in a very efficient manner. This Management System provides information for hospital events like patient records, medical history, prescriptions and also manages the patient's registration.

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