Project Report on

HOSPITAL MANAGEMENT SYSTEM

submitted by

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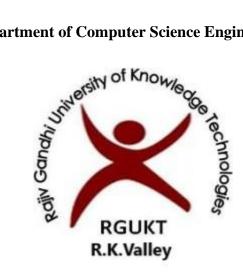
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CERTIFICATE

This is to certify that the project the project work titled "Hospital Management System" is a bonafied projectwork submitted by S Abdulla, J Ramcharan, S Johnny Basha in the department of Computer Science Engineering in partial fullfillment of requirements for the award of degree of Bachelors of Technology in Computer Science and Engineering for the year 2022-23 carried out the work under the supervision.

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ABSTRACT

The purpose of the project entitled as "HOSPITAL MANAGEMENT SYSTEM" is to computerize the Front Office Management of Hospital to develop software whichis user friendlysimple, 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 retrieves 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.

INTRODUCTION

2. Introduction:

The project Hospital Management system includes registration of patients, storing their details into the system. The software has the facility to give a unique id for every patient and stores the details of every patient.

The Hospital Management System can be entered using a username and password. It is accessible either by an administrator .Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

Hospital Management System is powerful, flexible, and easy to use and is designed and developed to deliver real conceivable benefits to hospitals.

Hospital 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 Hospital 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.

Hospital 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. Hospital 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

2.1 Problem Introduction:

Lack of immediate retrievals: -

The information is very difficult to retrieve and to find particular information like- E.g. - To find out about the patient's history, the user has to go through various registers. This results in inconvenience and wastage of time.

Lack of immediate information storage: -

The information generated by various transactions takes time and efforts to be stored at right place.

Lack of prompt updating: -

Various changes to information like patient details or immunization details of child are difficult to make as paper work is involved.

Error prone manual calculation: -

Manual calculations are error prone and take a lot of time this may result in incorrect information. For example calculation of patient's bill based on various treatments.

Preparation of accurate and prompt reports: -

This becomes a difficult task as information is difficult to collect from various register.

Objective:-

- 1) Define hospital
- 2) Recording information about the Patients that come.
- 3) Generating bills.
- 4) Recording information related to diagnosis given to Patients.
- 5) Keeping record of the Immunization provided to children/patients.
- 6) Keeping information about various diseases and medicines available to cure them.

These are the various jobs that need to be done in a Hospital by the operational staff andDoctors. All these works are done on papers.

Scope of the Project:-

- 1) Information about Patients is done by just writing the Patients name, age and gender. Whenever the Patient comes up his information is stored freshly.
- 2) Bills are generated by recording price for each facility provided to Patient on a separate sheet and at last they all are summed up.
- 3) Diagnosis information to patients is generally recorded on the document, which contains Patient information. It is destroyed after some time period to decrease the paper load in the office.
- 4) Immunization records of children are maintained in pre-formatted sheets, which are kept in a file.
- 5) Information about various diseases is not kept as any document. Doctors themselves do this job by remembering various medicines.

2.2 MODULES:

Hospital Management System is web application for hospital which manages doctors and patients. In this project, we use PHP and MySQL database.

The entire project mainly consists of 3 modules, which are

- **❖** Admin module
- User module (patient)
- Doctor module

2.2.1 Admin module:

- 1. **Dashboard:** In this section, admin can view the Patients, Doctors, Appointments and New queries.
- 2. **Doctors:** In this section, admin can add doctor's specialization and mange doctors (Add/Update).
- 3. **Users:** In this section, admin can view users detail (who take online appointment) and also have right to delete irrelevant user.
- 4. **Patients:** In this section, admin can view patient's details.
- 5. **Appointment History:** In this section, admin can view appointment history.
- 6. **Contact us Queries:** In this section, admin can view queries which are send by users.
- 7. **Doctor Session Logs:** In this section, admin can see login and logout time of doctor.
- 8. **User Session Logs:** In this section, admin can see login and logout time of user.
- 9. **Reports:** In this section, admin can view reports of patients in particular periods.
- 10. **Pages:** In this section, admin can update the about us and contact us page details.
- 11. **Patient Search:** In this section, admin can search patient with the help of patient name and mobile number.

Admin can also change his/her own password.

2.2.2 User module (patient):

- 1. **Dashboard:** In this section, patients can view the his/her profile, Appointments and Book Appointment.
- 2. **Book Appointment:** In this section, Patient can book his/her appointment.
- 3. **Appointment History:** In this section, Patients can see his/her own appointment history.
- 4. **Medical History:** In this section, Patients can see his/her own appointment history.

User can update his/her profile, change the password and recover the password.

2.2.3 Doctor module:

- 1. **Dashboard:** In this section, doctor can view his/her own profile and online appointments.
- 2. **Appointment History:** In this section, Doctor can see patient's appointment history.
- 3. **Patients:** In this section, doctor can manage patients (Add/Update).

REQUIREMENTS PECIFICATION

3.1 INTRODUCTION:

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.

3.2 HARDWARE REQUIREMENTS:

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware. A hardware requirements list is often accompanied by a hardware compatibility list (HCL), especially in case of operating systems. An HCL lists tested, compatibility and sometimes incompatible hardware devices for a particular operating system or application. The following sub-sections discuss the various aspects of hardware requirements.

HARDWARE REQUIREMENTS FOR PRESENT PROJECT:

PROCESSOR : Intel dual Core ,i3

RAM: 1 GB

HARD DISK : 80 GB

3.3 SOFTWARE REQUIREMENTS:

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in the software installation package and need to be installed separately before the software is installed.

SOFTWARE REQUIREMENTS FOR PRESENT PROJECT:

OPERATING SYSTEM: Windows 7/ XP/8/10/11

FRONT END : HTML, CSS, JavaScript query

SERVER SIDE SCRIPT : PHP

DATABASE : MySQL

ANALYSIS

4.1EXISTING SYSTEM:

Hospitals currently use a manual system for the management and maintenance of critical information. The current system requires numerous paper forms, with data stores spread throughout the hospital management infrastructure. Often information is incomplete or does not follow management standards. Forms are often lost in transit between departments requiring a comprehensive auditing process to ensure that no vital information is lost. Multiple copies of the same information exist in the hospital and may lead to inconsistencies in data in various data stores.

4.2 PROPOSED SYSTEM:

The Hospital 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 .

TECHNLOLOGIES USED

FRONT END : HTML, CSS, JavaScript query

SERVER SIDE SCRIPT : PHP

DATABASE : MySQL

HTML:

HTML or Hypertext Markup Language is the standard <u>markup language</u> used to create <u>web pages</u>.

HTML is written in the form of <u>HTML elements</u> consisting of *tags* enclosed in <u>angle</u> <u>brackets</u> (like <html>). HTML tags most commonly come in pairs like <h1> and </h1>, although some tags represent *empty elements* and so are unpaired, for example . The first tag in a pair is the *start tag*, and the second tag is the *end tag* (they are also called *opening tags* and *closing tags*). Though not always necessary, it is best practice to append a slash to tags which are not paired with a closing tag.

The purpose of a <u>web browser</u> is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page. HTML describes the structure of a website <u>semantically</u> along with cues for presentation, making it a <u>markup language</u> rather than a <u>programming language</u>.

CASCADING STYLE SHEETS (CSS):

It is a <u>style sheet language</u> used for describing the <u>look and formatting</u> of a document written in a <u>markup language</u>. While most often used to style <u>web pages</u> and <u>interfaces</u> written in <u>HTML</u> and <u>XHTML</u>, the language can be applied to any kind of <u>XML</u> document, including <u>plain XML</u>, <u>SVG</u> and <u>XUL</u>. CSS is a cornerstone specification of <u>the web</u> and almost all web pages use CSS style sheets to describe their presentation.

CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, <u>colors</u>, and <u>fonts</u>. [11] This separation can improve content <u>accessibility</u>, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content .

MySQL:

MySQL is developed, distributed, and supported by Oracle Corporation. MySQL is a database system used on the web it runs on a server. MySQL is ideal for both small and large applications. It is very fast, reliable, and easy to use. It supports standard SQL. MySQL can be compiled on a number of platforms.

The data in MySQL is stored in tables. A table is a collection of related data, and it consists of columns and rows. Database

JAVASCRIPT:

JavaScript is the scripting language of the Web. All modern HTML pages are using JavaScript. A scripting language is a lightweight programming language. JavaScript code can be inserted into any HTML page, and it can be executed by all types of web browsers. JavaScript is easy to learn.

PHP:

WHAT IS PHP?

- PHP is an acronym for "PHP Hypertext Preprocessor"
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server
- PHP costs nothing, it is free to download and use

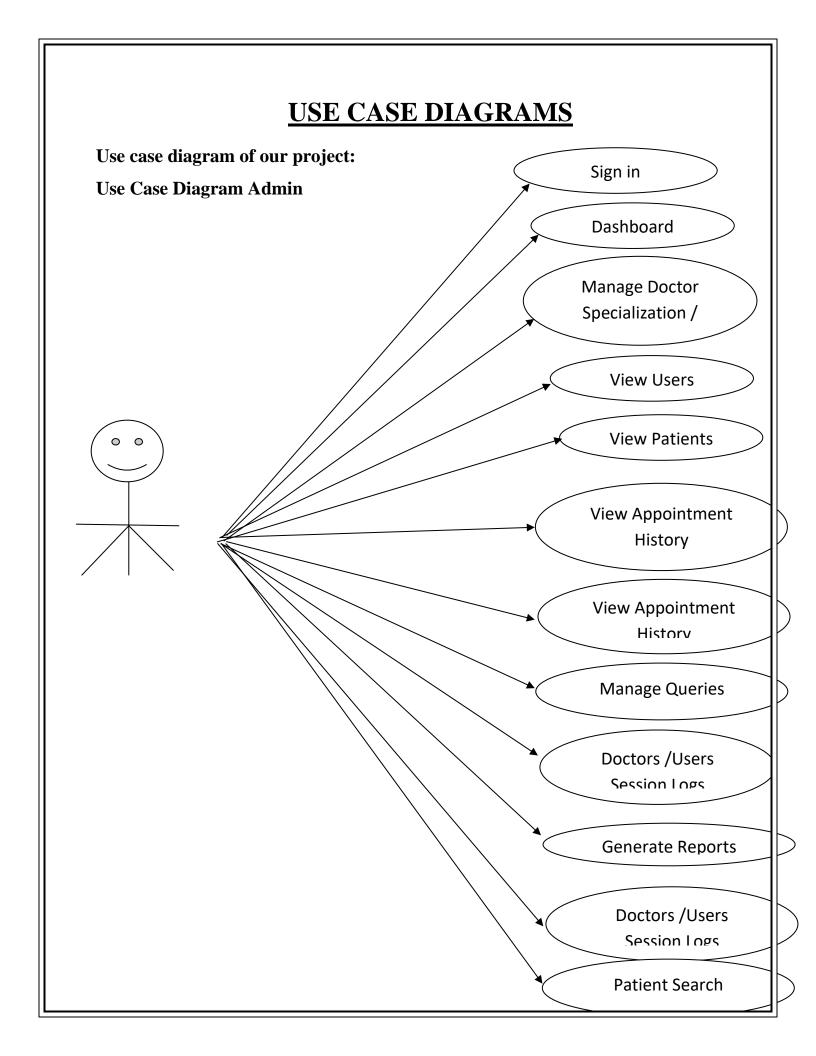
WHAT IS PHP FILE?

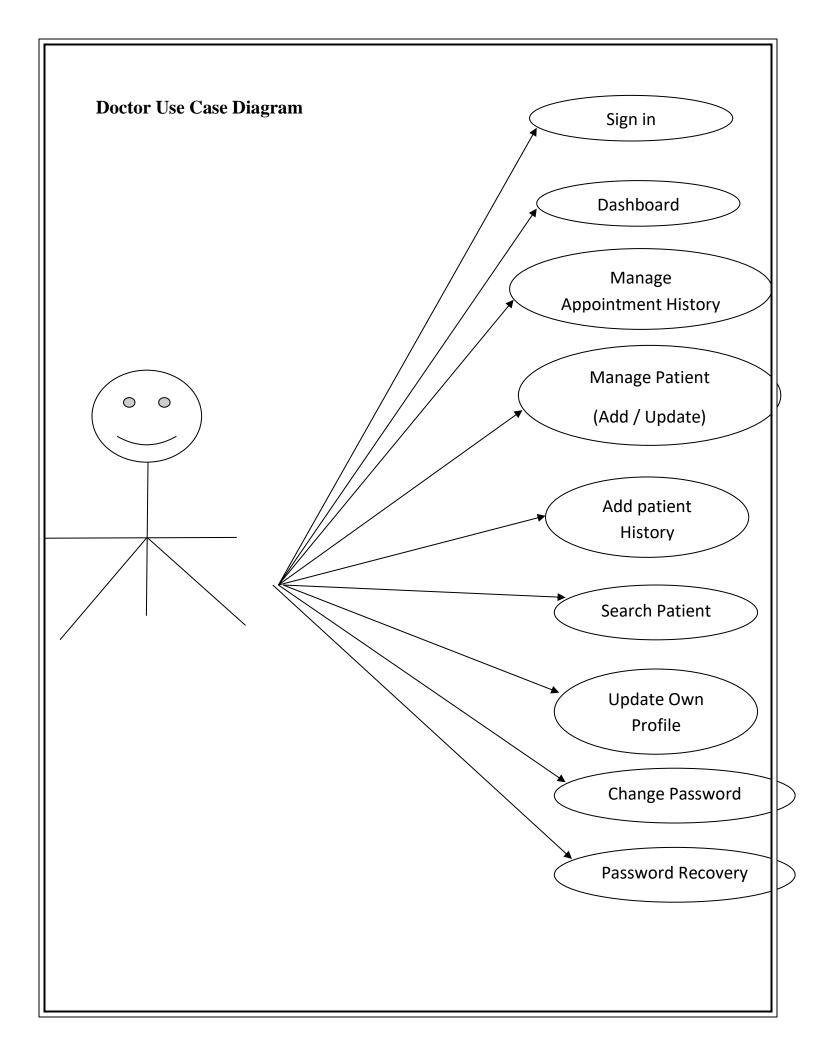
- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code are executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"

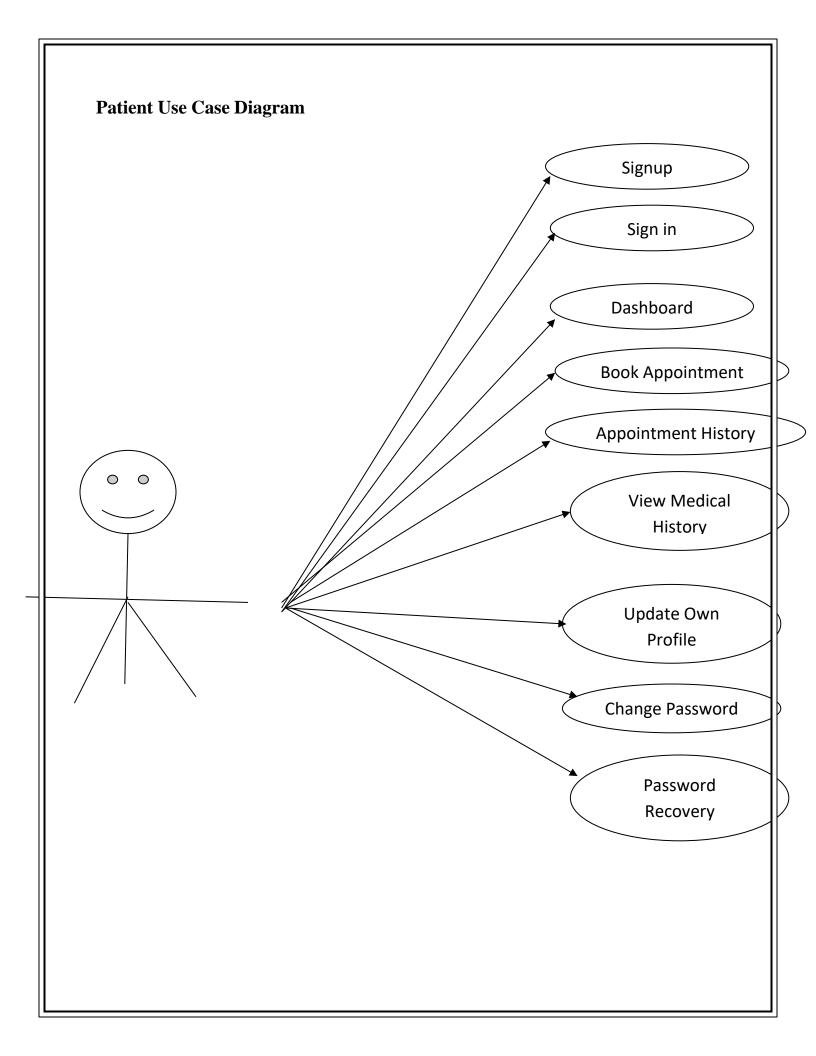
WHAT CAN PHP DO?

- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can restrict users to access some pages on your website
- PHP can encrypt data

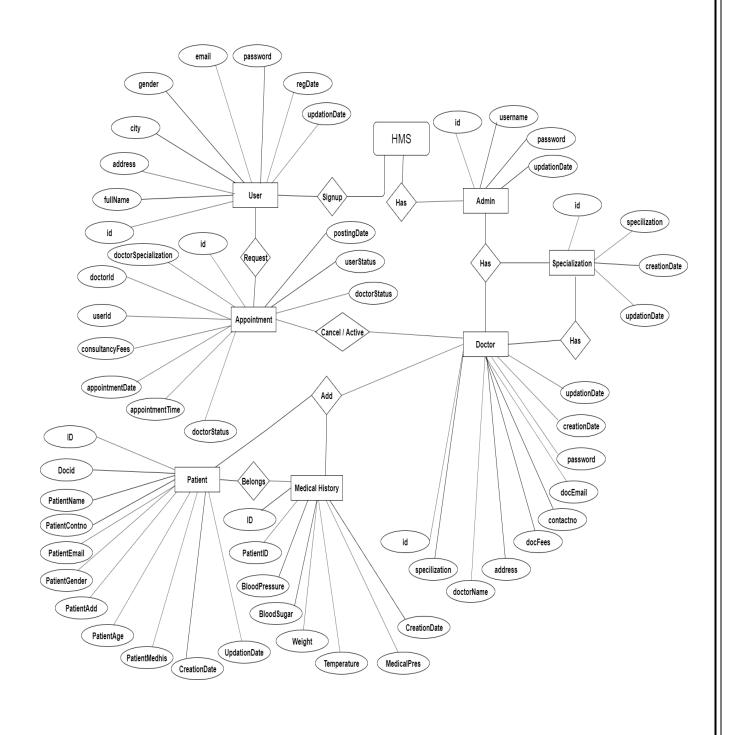
With PHP you are not limited to output HTML. You can output images, PDF files, and even Flash movies. You can also output any text, such as XHTML and XML.







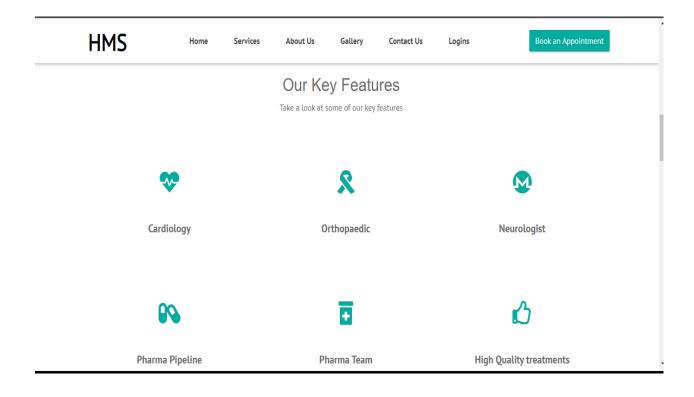
ER Diagram



SAMPLE SCREENSHOTS

Home Page:





Home Services About Us Gallery Contact Us Logins Book an Appointment



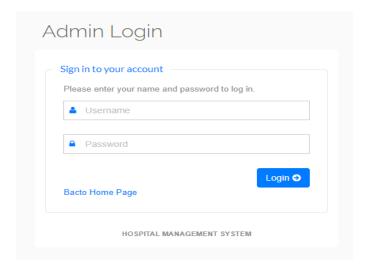
About Our Hospital

The Hospital Management System (HMS) is designed for Any Hospital to replace their existing manual, paper based system. The new system is to control the following information; patient information, 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.

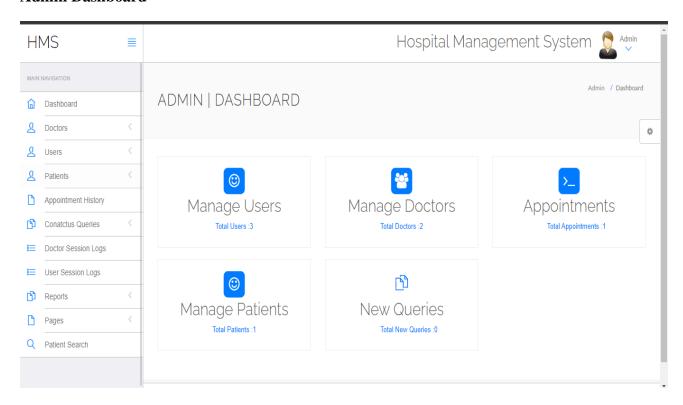
A significant part of the operation of any hospital involves the acquisition, management and timely retrieval of great volumes of information. This information typically involves; patient personal information and medical history, staff information, room and ward scheduling, staff scheduling, operating theater scheduling and various facilities waiting lists. All of this information must be managed in an efficient and cost wise fashion so that an institution's resources may be effectively utilized HMS will automate the management of the hospital making it more efficient and error free. It aims at standardizing data, consolidating data ensuring data integrity and reducing inconsistencies.

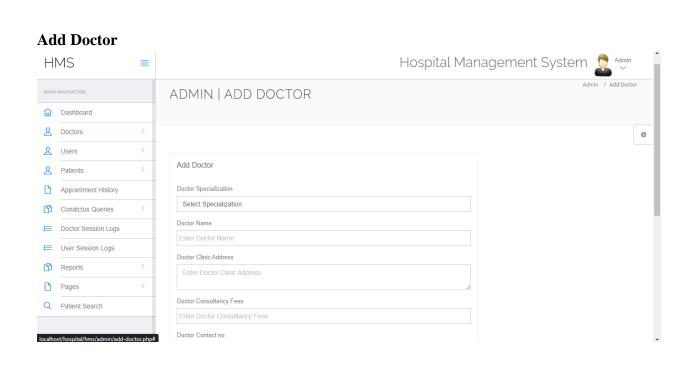
HMS	Home	Services	About Us	Gallery	Contact Us	Logins	Book an Appointment
Contact Form							
Enter Name :	Enter Name						
Email Address :	Enter Email Address						
Mobile Number:	Enter Mobile Number						
Enter Message:	Enter \	our Message					
	Send M	lessage					

Admin Login:

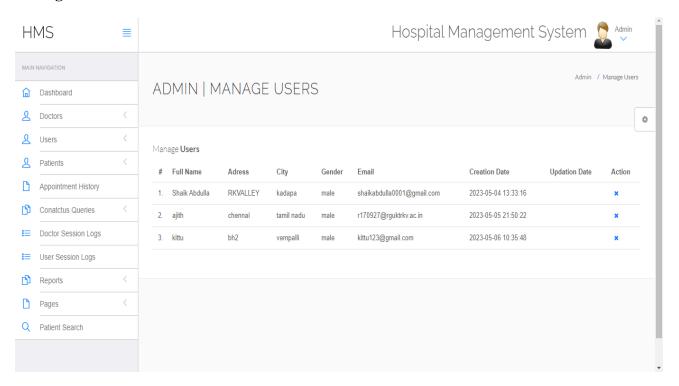


Admin Dashboard





Manage Users

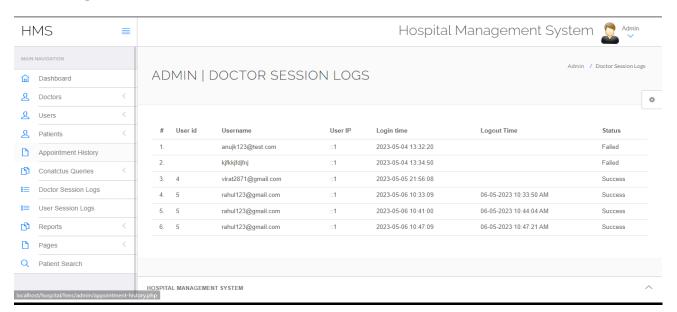


View Patient

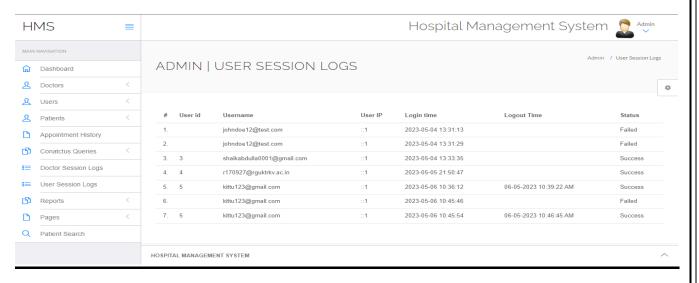




Doctor Logs



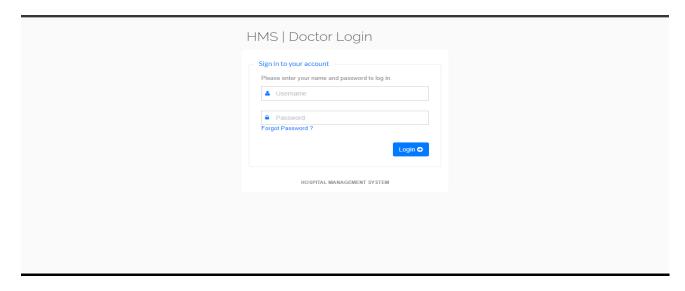
User Logs



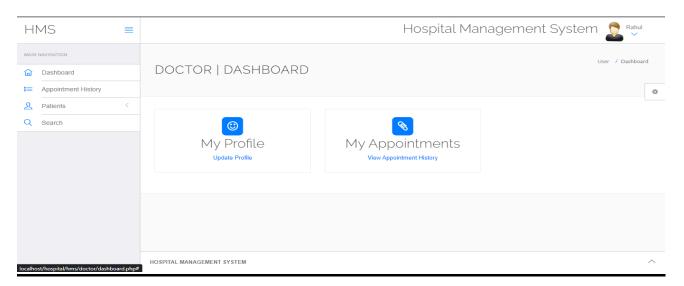
Change Password



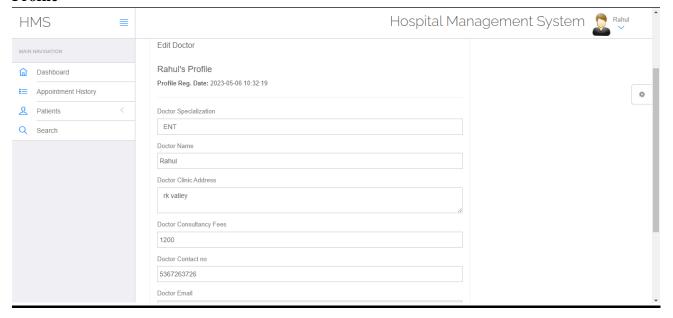
Doctor Login



Doctor Dashboard



Profile



Appointment History



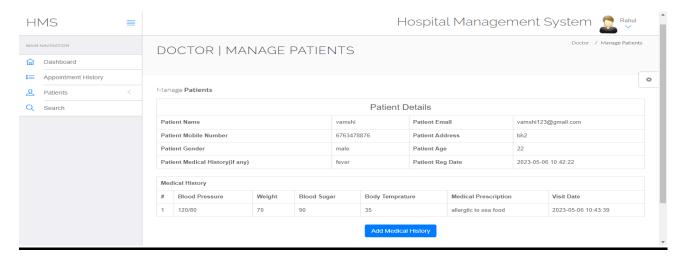
Add Patient



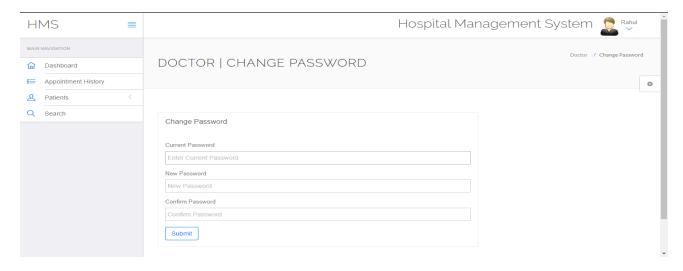
Manage Patient



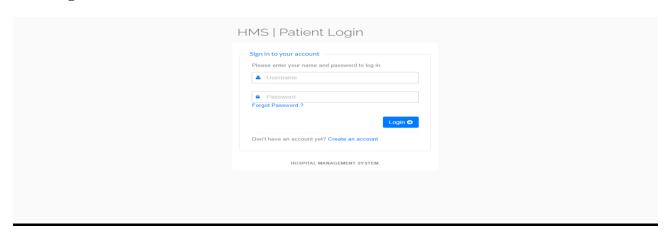
View Patient Medical history



Doctor Change Password



User Login

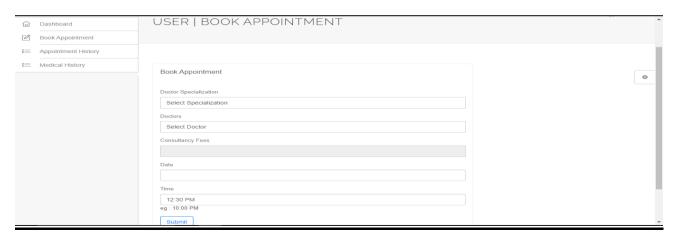


Edit Profile

HOSPITAL MANAGEMENT SYSTEM



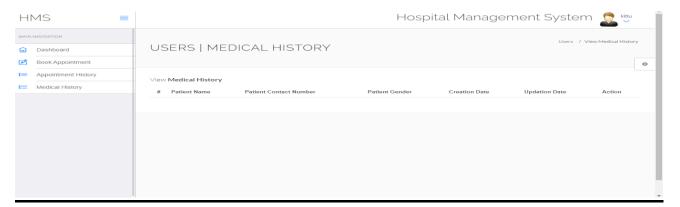
Book Appointment



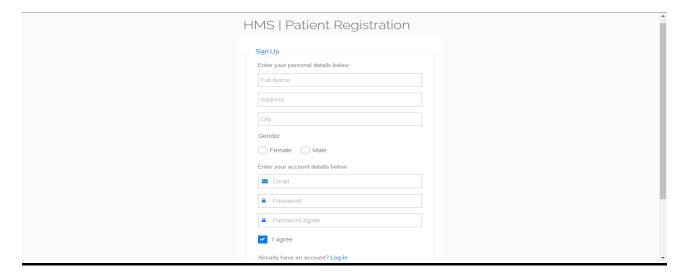
Appointment History



Medical History



Patient Registration



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.							

REFERENCES:
W3SCHOOLS: https://www.w3schools.com/php/
GEEK FOR GEEKS: https://www.geeksforgeeks.org/mysql-introdution/
JAVATPOINT: https://www.javatpoint.com/javascript-tutorial