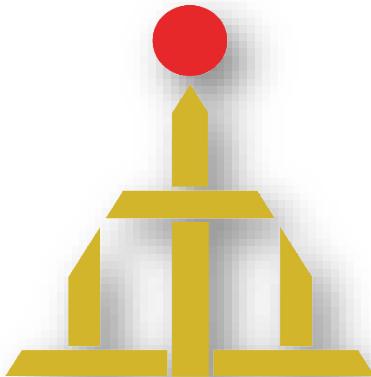


Indian Institute of Information Technology

Bhagalpur - 813210



भारतीय स्चना प्रौद्योगिकी संस्थान भागलपुर
Indian Institute of Information Technology
Bhagalpur

Hospital Management System (for Doctor's only)

Submitted by:

Group – 9

Dhanu Kumar (180101014)

Gaurav Suman (180101016)

Harshit Shukla (180101020)

Mukesh Yadav (180101032)

Shubh Agrawal (180101043)

Class: B.Tech. – III

Semester: V

Department of Computer Science Engineering

IIIT BHAGALPUR, BIHAR 813210, INDIA

Table of Contents

ABSTRACT.....	4
INTRODUCTION:.....	4
Problem Introduction:.....	5
Lack of immediate retrievals: -.....	5
Lack of immediate information storage: -.....	5
Lack of prompt updating: -.....	5
Preparation of accurate and prompt reports: -.....	5
Goals.....	5
Objective.....	6
EXISTING SYSTEM:.....	6
PROPOSED SYSTEM:.....	6
FEASIBILITY STUDY.....	6
Economic Feasibility.....	7
Technical Feasibility.....	7
Operational Feasibility.....	7
CASCADING STYLE SHEETS (CSS):.....	8
MySQL:.....	9
CONNECTIVITY:.....	10
LOCALIZATION:.....	11
CLIENTS AND TOOLS:.....	11
WHY TO USE MySQL:.....	11
PHP:.....	11
WHAT IS PHP FILE?.....	12
WHAT CAN PHP DO?.....	12
WHY PHP?.....	12
Software requirement specification.....	12
Pre-requisites.....	12
Languages and Technologies used.....	13
Steps to run the project in your machine.....	13
SOFTWARE USED.....	13
Draw E_R diagram and Data Flow diagram (level 0 and level 1).....	14
Output.....	18

Problem Statement

**HOSPITAL MANAGEMENT SYSTEM FOR
DOCTORS POINT OF VIEW .**

DOCUMENTATION

ABSTRACT

Hospital Management System is an organized computerized system designed and programmed to deal with day to day operations and management of the hospital activities. Our main motive is to implement basic hospital management system for doctors only. In this project we are going to provide the extra facility to store the report in the database and make available from anywhere in the world.

INTRODUCTION:

The software has the facility to give a unique id for every patient. We have separate database to store the information of patients as well as doctors.

The Hospital Management System can be accessed by doctor or by admin using their username and password. It is accessible either by an administrator or doctor. Doctor can only view their appointment and can dismiss it. 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.

This project is designed to implement hospital management system in a simple way, 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 and hospital administration 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.

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 doctor and admin 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.

Preparation of accurate and prompt reports: -

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

Goals

1. User friendly
2. Simple and fast
3. Low cost and effective
4. It deals with the collection of patient's information

Objective

- 1) Implement simple hospital management system for doctors only.
- 2) Make separate database for the system.

EXISTING SYSTEM:

Hospitals currently use a manual system for the management and maintainance of critical information. The current system requires numerous paper forms, with data stores spread through out 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.

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 .

FEASIBILITY STUDY

The feasibility of the project is analysed in this phase and business proposal is put forth with a very general plan for the

project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential.

Three key considerations involved in the feasibility analysis are:

Economic Feasibility

This study is carried out to check the economic impact will have on the system will have on the organization. The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus the developed system as well within the budget and this was achieved because most of the technologies used are freely available. Only the customised products have to be purchased.

Technical Feasibility

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes for the implementing this system.

Operational Feasibility

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel threatened by the system, instead must accept it as a necessity. The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it. His level of confidence must be raised so that he is also able to make some constructive criticism, which is welcomed, as he is the final user of the system.

SOFTWARE SPECIFICATION

HTML:

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

HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (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 web browser 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 semantically along with cues for presentation, making it a markup language rather than a programming language.

HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages

CASCADING STYLE SHEETS (CSS):

It is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is a cornerstone specification of the web 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, colors, and fonts.^[1] This separation can improve content accessibility, 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 .

CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified. However if the author or the reader did not link the document to a specific style sheet the default style of the browser will be applied.

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. Databases are useful when storing information categorically.

FEATURES OF MySQL:

Internals and portability:

- Written in C and C++.
- Tested with a broad range of different compilers.
- Works on many different platforms.
- Tested with Purify (a commercial memory leakage detector) as well as with Valgrind, a GPL tool.

- Uses multi-layered server design with independent modules.

Security:

- A privilege and password system that is very flexible and secure, and that enables host-based verification.
- Password security by encryption of all password traffic when you connect to a server.

Scalability and Limits:

- Support for large databases. We use MySQL Server with databases that contain 50 million records. We also know of users who use MySQL Server with 200,000 tables and about 5,000,000,000 rows.
- Support for up to 64 indexes per table (32 before MySQL 4.1.2). Each index may consist of 1 to 16 columns or parts of columns. The maximum index width is 767 bytes for InnoDB tables, or 1000 for MyISAM; before MySQL 4.1.2, the limit is 500 bytes. An index may use a prefix of a column for CHAR, VARCHAR, BLOB, or TEXT column types.

CONNECTIVITY:

Clients can connect to MySQL Server using several protocols:

- Clients can connect using TCP/IP sockets on any platform.
- On Windows systems in the NT family (NT, 2000, XP, 2003, or Vista), clients can connect using named pipes if the server is started with the -- enable-named-pipe option. In MySQL 4.1 and higher, Windows servers also support shared-memory connections if started with the --shared-memory option. Clients can connect through shared memory by using the -- protocol=memory option.
- On UNIX systems, clients can connect using Unix domain socket files.

LOCALIZATION:

- The server can provide error messages to clients in many languages.
- All data is saved in the chosen character set.

CLIENTS AND TOOLS:

MySQL includes several client and utility programs. These include both command-line programs such as `mysqldump` and `mysqladmin`, and graphical programs such as [MySQL Workbench](#).

MySQL Server has built-in support for SQL statements to check, optimize, and repair tables. These statements are available from the command line through the `mysqlcheck` client. MySQL also includes `myisamchk`, a very fast command-line utility for performing these operations on MyISAM tables.

MySQL programs can be invoked with the `--help` or `-?` option to obtain online assistance.

WHY TO USE MySQL:

- Leading open source RDBMS
- Ease of use – No frills
- Fast
- Robust
- Security
- Multiple OS support
- Free
- Technical support
- Support large database— up to 50 million rows, file size limit up to 8 Million TB

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.

WHY PHP?

- PHP runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP supports a wide range of databases
- PHP is free. Download it from the official PHP resource: www.php.net

Software requirement specification

Pre-requisites

1. Install XAMPP web server
2. Any Editor (Preferably VS Code or Sublime Text)
3. Any web browser with latest version

Languages and Technologies used

1. HTML5/CSS3
2. JavaScript (to create dynamically updating content)
3. Bootstrap (An HTML, CSS, and JS library)
4. XAMPP (A web server by Apache Friends)
5. Php
6. MySQL (An RDBMS that uses SQL)
7. TCPDF (to generate PDFs)

Steps to run the project in your machine

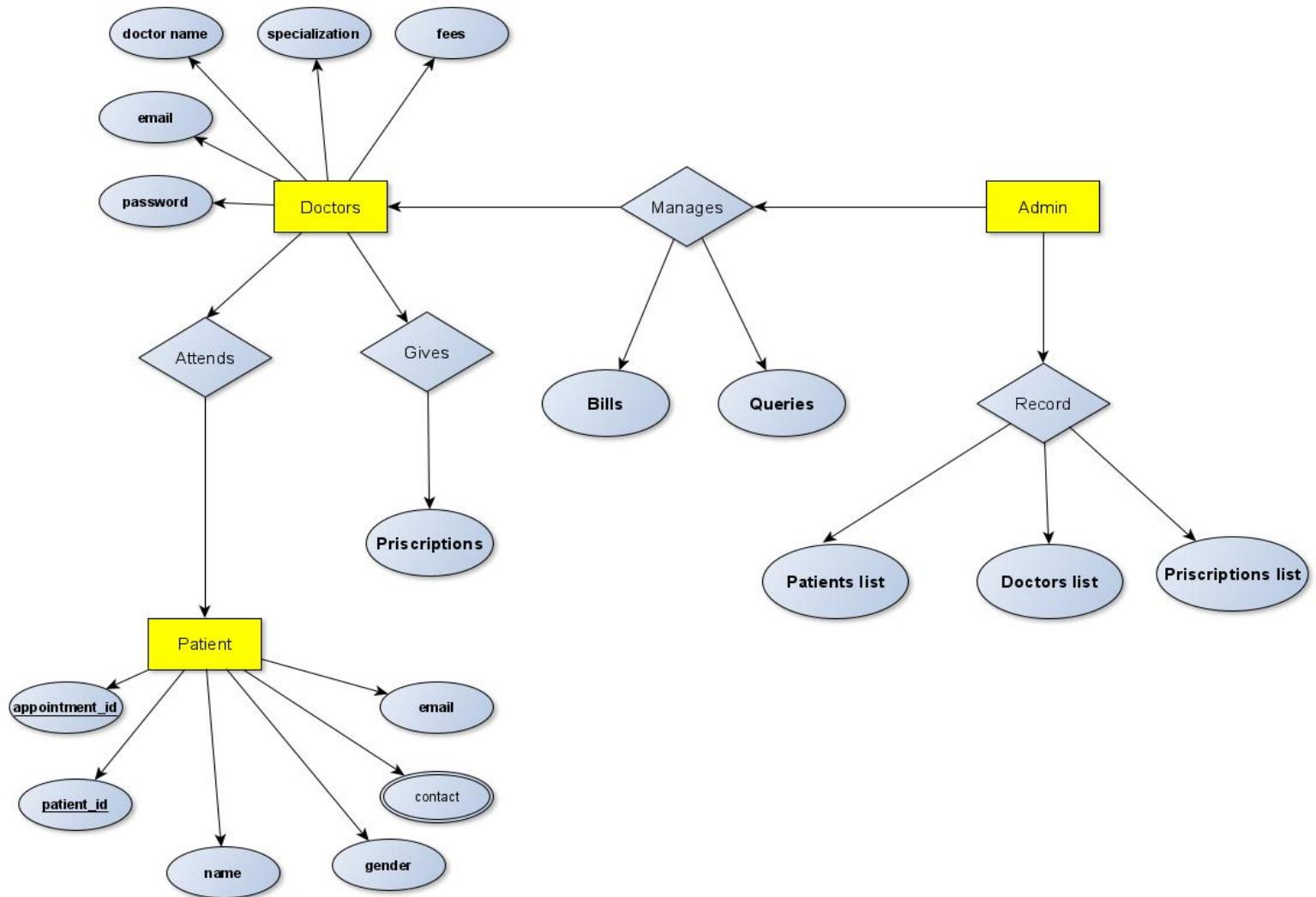
1. Download and install XAMPP in your machine
2. Clone or download the repository
3. Extract all the files and move it to the 'htdocs' folder of your XAMPP directory.
4. Start the Apache and Mysql in your XAMPP control panel.
5. Open your web browser and type 'localhost/phpmyadmin'
6. In phpmyadmin page, create a new database from the left panel and name it as 'myhmsdb'
7. Import the file 'myhmsdb.sql' inside your newly created database and click ok.
8. Open a new tab and type 'localhost/foldername' in the url of your browser
9. Hurray! That's it!

SOFTWARE USED

- XAMPP
- Visual studio code
- Google Chrome

Draw E_R diagram and Data Flow diagram (level 0 and level 1)

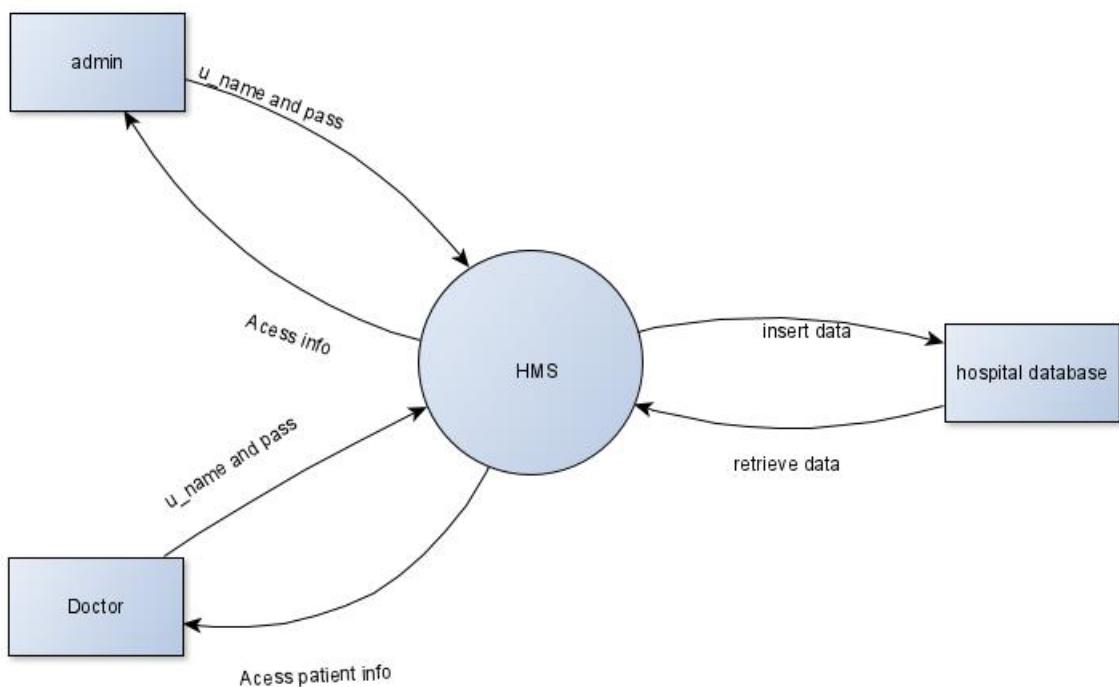
Entity Relationship diagram

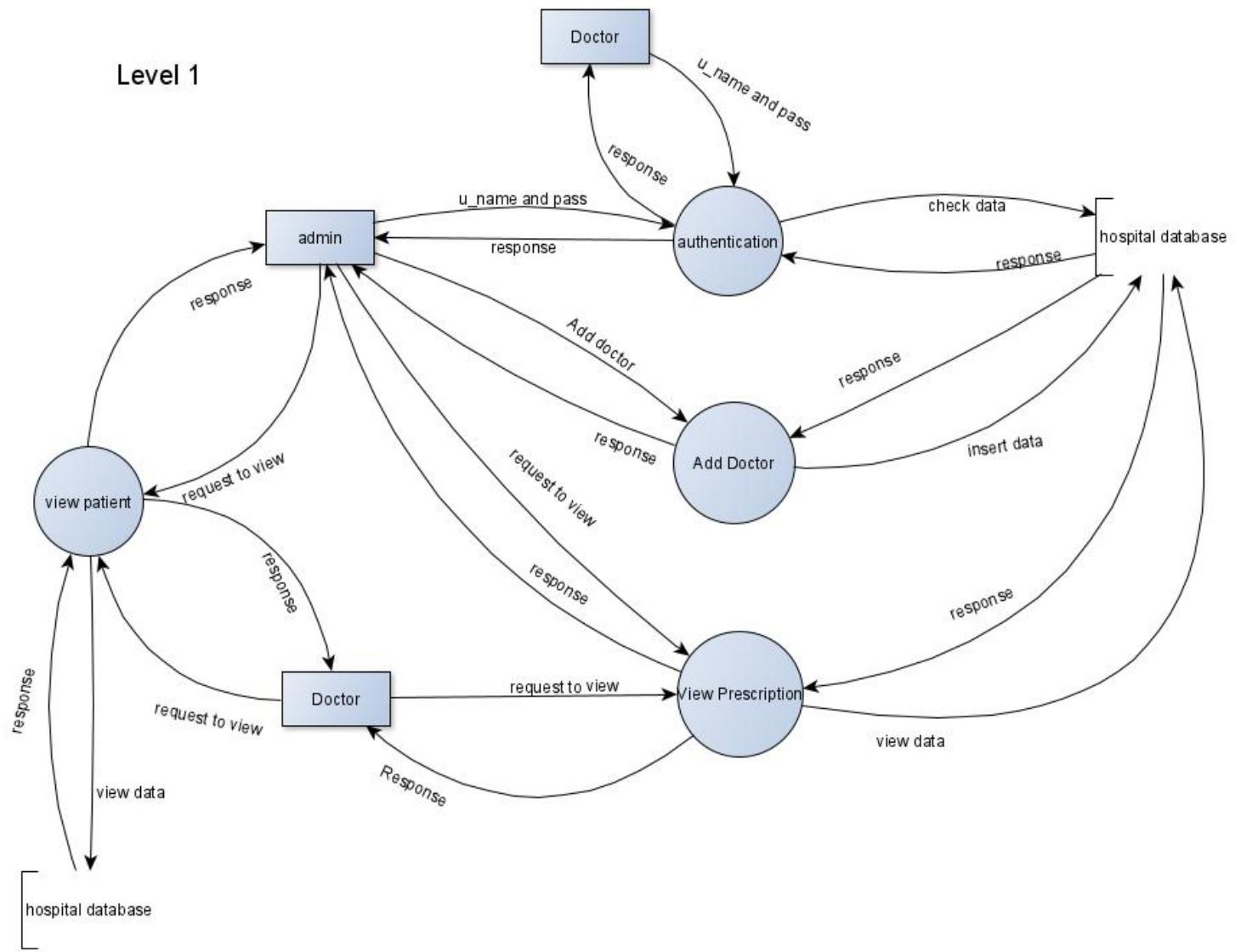


Database is absolutely an integral part of software system. To fully utilize ER Diagram in database engineering guarantee you to produce high quality database design to use in database creation, management and maintenance. An ER model also provides a means for communication

Data flow diagram

Level 0





Implementation tools

1. HTML5/CSS3
2. JavaScript (to create dynamically updating content)
3. Bootstrap
4. XAMPP (A web server by Apache Friends)
5. PHP
6. MySQL (An RDBMS that uses SQL)

Additional information use to login and to retrieve the data

1.Admin Info

admin user name – admin
admin password - admin123

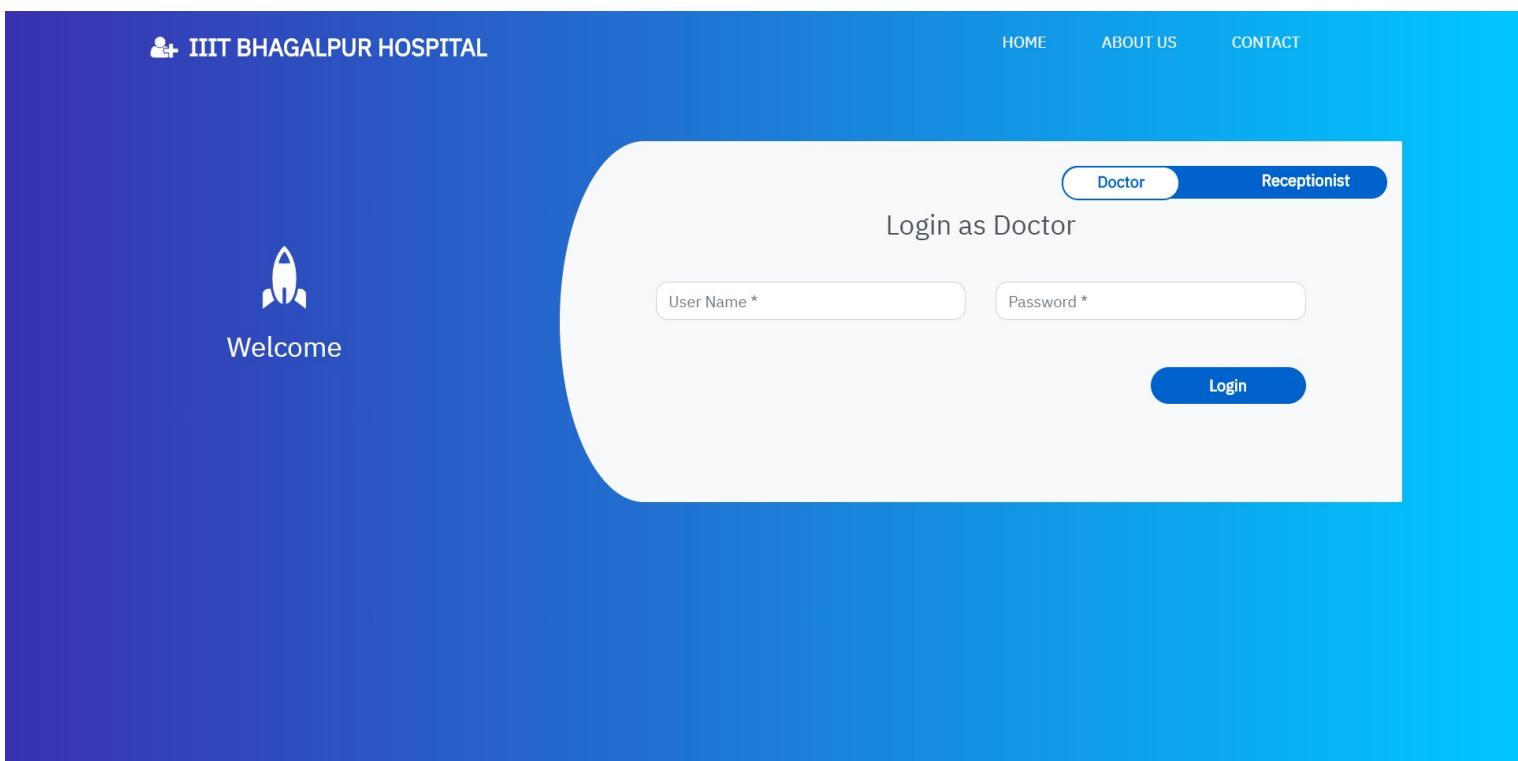
2.Doctor's Info

username	password	email	spec	docFees
ashok	ashok123	ashok@gmail.com	General	500
arun	arun123	arun@gmail.com	Cardiologist	600
Dinesh	dinesh123	dinesh@gmail.com	General	700
Ganesh	ganesh123	ganesh@gmail.com	Pediatrician	550
Kumar	kumar123	kumar@gmail.com	Pediatrician	800
Amit	amit123	amit@gmail.com	Cardiologist	1000
Abbis	abbis123	abbis@gmail.com	Neurologist	1500
Tiwary	tiwary123	tiwary@gmail.com	Pediatrician	450

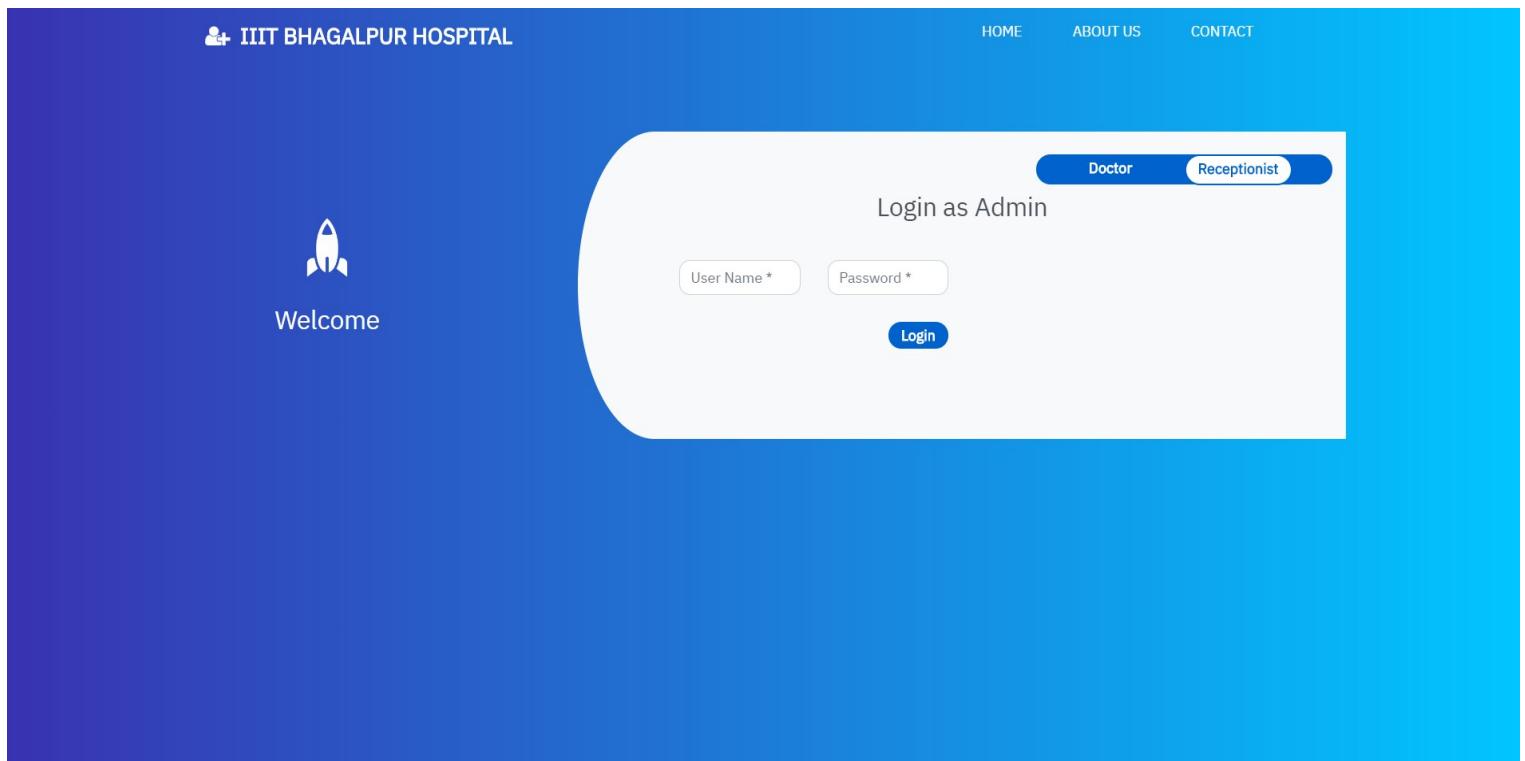
Output

The 'Home' page consists of 2 modules:

1. Admin Module
2. Doctor Module



1.Admin Module



This module is the heart of our project where an admin can see the list of all patients. Doctors and appointments and the feedback/queries received from the 'Contact' page. Also admin can add doctor too. Login into admin account can be done by toggling into admin tab of the Home page. Figure below shows the login page for admin.

On clicking the 'Login' button, the admin will be redirected to his/her dashboard as shown in Figure below.

- Admin's dashboard

WELCOME RECEPTIONIST

Dashboard
Doctor List
Patient List
Appointment Details
Prescription List
Add Doctor
Delete Doctor
Queries


Doctor List
[View Doctors](#)


Patient List
[View Patients](#)


Appointment Details
[View Appointments](#)


Prescription List
[View Prescriptions](#)


Manage Doctors
[Add Doctors | Delete Doctors](#)

This module allows admin to perform five major operations -

1. View the list of all doctors registered:

Details of the doctors can also be viewed by the admin. This details include the Name of the doctor, Password, Email and Consultancy fees. Searching for a doctor can be done by using the doctor's Email ID in the search box.

WELCOME RECEPTIONIST

Dashboard
Doctor List
Patient List
Appointment Details
Prescription List
Add Doctor
Delete Doctor
Queries

Enter Email ID		Search		
Doctor Name	Specialization	Email	Password	Fees
ashok	General	ashok@gmail.com	ashok123	500
arun	Cardiologist	arun@gmail.com	arun123	600
Dinesh	General	dinesh@gmail.com	dinesh123	700
Ganesh	Pediatrician	ganesh@gmail.com	ganesh123	550
Kumar	Pediatrician	kumar@gmail.com	kumar123	800
Amit	Cardiologist	amit@gmail.com	amit123	1000
Abbis	Neurologist	abbis@gmail.com	abbis123	1500
Tiwary	Pediatrician	tiwary@gmail.com	tiwary123	450

2. View the list of all patients registered:

Admin can able to view all the patients registered. This includes the patients' First Name, Last Name, Email ID, Contact Number and Password. (See Fig 1.15). As like in doctor module, admin can also search for a patient by their contact number in the search box.

Dashboard
Doctor List
Patient List
Appointment Details
Prescription List
Add Doctor
Delete Doctor
Queries

Enter Contact						Search	
Patient ID	First Name	Last Name	Gender	Email	Contact	Password	
1	Ram	Kumar	Male	ram@gmail.com	9876543210	ram123	
2	Alia	Bhatt	Female	alia@gmail.com	8976897689	alia123	
3	Shahrukh	khan	Male	shahrukh@gmail.com	8976898463	shahrukh123	
4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	kishan123	
5	Gautam	Shankaram	Male	gautam@gmail.com	9070897653	gautam123	
6	Sushant	Singh	Male	sushant@gmail.com	9059986865	sushant123	
7	Nancy	Deborah	Female	nancy@gmail.com	9128972454	nancy123	
8	Kenny	Sebastian	Male	kenny@gmail.com	9809879868	kenny123	
9	William	Blake	Male	william@gmail.com	8683619153	william123	
10	Peter	Norvig	Male	peter@gmail.com	9609362815	peter123	
11	Shraddha	Kapoor	Female	shraddha@gmail.com	9768946252	shraddha123	
12	Shubh	Agrawal	Male	shubh_intelligent@gmail.com	9876543210	asdf1234	

3. View the Appointment details:

Admin can also able to see the entire details of the appointment that shows the appointment details of the patients with their respective doctors. This includes the First Name, Last Name, Email and Contact Number of patients, doctor's name, Appointment Date, Time and the Consultancy Fees.

IIIT BHAGALPUR HOSPITAL		Logout									
WELCOME RECEPTIONIST											
Dashboard	<input type="text" value="Enter Contact"/> Search										
Doctor List											
Patient List											
Appointment Details											
Prescription List											
Add Doctor											
Delete Doctor											
Queries											
Appointment ID	Patient ID	First Name	Last Name	Gender	Email	Contact	Doctor Name	Consultancy Fees	Appointment Date	Appointment Time	Appointment Status
1	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Ganesh	550	2020-02-14	10:00:00	Cancelled by Doctor
2	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Dinesh	700	2020-02-28	10:00:00	Cancelled by Patient
3	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Amit	1000	2020-02-19	03:00:00	Cancelled by Patient
4	11	Shraddha	Kapoor	Female	shraddha@gmail.com	9768946252	ashok	500	2020-02-29	20:00:00	Active
5	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Dinesh	700	2020-02-28	12:00:00	Active
6	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Ganesh	550	2020-02-26	15:00:00	Cancelled by Patient
8	2	Alia	Bhatt	Female	alia@gmail.com	8976897689	Ganesh	550	2020-03-21	10:00:00	Active
9	5	Gautam	Shankaram	Male	gautam@gmail.com	9070897653	Ganesh	550	2020-03-19	20:00:00	Cancelled by Doctor
10	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Ganesh	550	0000-00-00	14:00:00	Cancelled by Doctor
11	4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	Dinesh	700	2020-03-27	15:00:00	Active
12	9	William	Blake	Male	william@gmail.com	8683619153	Kumar	800	2020-03-26	12:00:00	Active

4. View prescription list:

Admin alone can view the prescription list assigned by the doctor.

5. Add doctor:

Admin alone can add a new doctor since anyone can register as a doctor if we put this section on the home page. This form asks Doctor's Name, Email ID, Password and his/her Consultancy Fees

IIT BHAGALPUR HOSPITAL [Logout](#)

WELCOME RECEPTIONIST

Dashboard	Doctor Name: <input type="text" value="Mukesh Yadav"/>
Doctor List	Specialization: <input type="text" value="Cardiologist"/>
Patient List	Email ID: <input type="text" value="mukku_bilar@gmail.com"/>
Appointment Details	Password: <input type="password" value="*****"/>
Prescription List	Confirm Password: <input type="password" value="*****"/>
Add Doctor	Consultancy Fees: <input type="text" value="21"/> Matched
Delete Doctor	<input type="button" value="Add Doctor"/>
Queries	

6.Delete doctor:

IIT BHAGALPUR HOSPITAL [Logout](#)

WELCOME RECEPTIONIST

Dashboard	Email ID: <input type="text" value="shubhagrawal123456@gmail.com"/>
Doctor List	<input type="button" value="Delete Doctor"/>
Patient List	
Appointment Details	
Prescription List	
Add Doctor	
Delete Doctor	
Queries	

7. View User's feedback/Queries:

Admin is allowed to view the feedback/Query that has been given by the user in the 'Contact' page . This includes User's Name, Email Id, Contact Number and the message(Feedback/ Query)

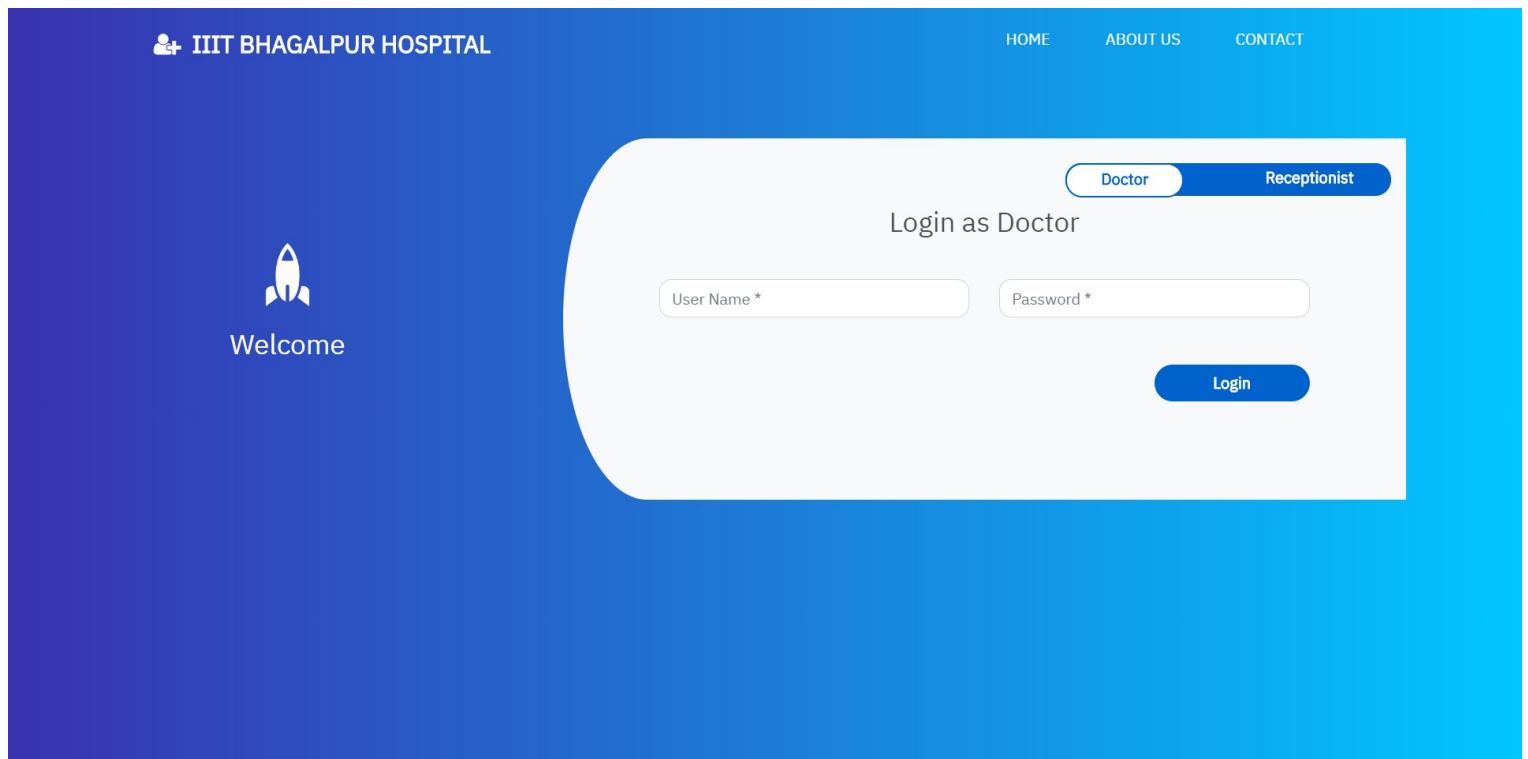
WELCOME RECEPTIONIST

Dashboard
Doctor List
Patient List
Appointment Details
Prescription List
Add Doctor
Delete Doctor
Queries

Enter Contact			
User Name	Email	Contact	Message
Anu	anu@gmail.com	7896677554	Hey Admin
Viki	viki@gmail.com	9899778865	Good Job, Pal
Ananya	ananya@gmail.com	9997888879	How can I reach you?
Aakash	aakash@gmail.com	8788979967	Love your site
Mani	mani@gmail.com	8977768978	Want some coffee?
Karthick	karthi@gmail.com	9898989898	Good service
Abbis	abbis@gmail.com	8979776868	Love your service
Asiq	asiq@gmail.com	9087897564	Love your service. Thank you!
Jane	jane@gmail.com	7869869757	I love your service!

2.Doctor's Module

1.Doctor's login



2. Doctor's dashboard

The screenshot shows the Doctor's dashboard. At the top, there is a blue header bar with the hospital's logo and name, a "Logout" link, and a search bar. Below the header, the text "Welcome ashok" is displayed. On the left, there is a sidebar with three options: "Dashboard" (selected), "Appointments", and "Prescription List". In the center, there are two main sections: "View Appointments" with a "Appointment List" link and "Prescriptions" with a "Prescription List" link. Each section has a corresponding icon: a grid for appointments and a prescription bottle for prescriptions.

3.Appointment list:

Welcome ashok

Dashboard
Appointments
Prescription List

Patient ID	Appointment ID	First Name	Last Name	Gender	Email	Contact	Appointment Date	Appointment Time	Current Status	Action	Prescribe
11	4	Shraddha	Kapoor	Female	shraddha@gmail.com	9768946252	2020-02-29	20:00:00	Active	<button>Cancel</button>	<button>Prescribe</button>

4.Prescription List:

Welcome ashok

Dashboard
Appointments
Prescription List

Patient ID	First Name	Last Name	Appointment ID	Appointment Date	Appointment Time	Disease	Allergy	Prescribe
------------	------------	-----------	----------------	------------------	------------------	---------	---------	-----------

5. Prescribe page:

 IIIT BHAGALPUR HOSPITAL [Logout](#) [Back](#)

Welcome ashok

Disease:

Allergies:

Prescription:

[Prescribe](#)

6.log out :

You have logged out.

[Back to Home Page](#)