

# Hospital Management System

Dhivakaran.R, Arunkumar.S, Thillaikumar.P

Bachelor Of Technology

Information Technology

Sri Shakthi Institute of Engineering and Technology

(Autonomous),

Coimbatore 641062

## ABSTRACT

Our project Hospital Management system includes registration of patients, storing their details into the system, and also booking their appointments with doctors. Our software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. User can search availability of a doctor and the details of a patient using the id. 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 intothe 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. It is having mainly two modules. One is at Administration Level and other one is of 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 one for the patient and other for the doctors which the admin can access. The complaints which are given by user will be referred by authorities. The Patient modules include checking appointments, prescription. User can also pay doctor's Fee online.

## INTRODUCTION:

The project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. The software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. User can search availability of a doctor and the details of a patient using the id.

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 interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

Hospital Management System is designed for multispeciality 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

## RESEARCH METHODOLOGY:

### EXISTING SYSTEM:

- The current system requires numerous paper forms, with data stores spread throughout the hospital management infrastructure.
- Often information (on forms) is incomplete, or does not follow management standards.
- 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 (HMS) is designed for Any Hospitalto replace their existing manual, paper based system.
- The new system is to control the following information; patientinformation, staff and 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.

### **SYSTEM REQUIREMENT:**

#### **Hardware Specification:**

- System : Pentium Dual Core.
- Hard Disk : 120 GB.
- Monitor : 15''LED
- Input Devices : Keyboard, Mouse
- Ram : 1 GB

#### **Software Specification**

- Operating system : Windows 7.
- Coding Language :HTML,CSS,JS
- Tool : Visual Studio 2008
- Database : SQL SERVER 2005

## **MODULE DESCRIPTION:**

### **Front End:**

**HTML** : Hypertext Markup Language (HTML) is the standard markup language for creating web pages and applications. Each page contains a series of connections to other pages called hyperlinks. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are delineated by tags, written using angle brackets.

**CSS**: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the

### **BACK END:**

The back end refers to parts of a computer application or a program's code that allow it to operate and that cannot be accessed by a user. Most data and operating syntax are stored and accessed in the back end of a computer system. Typically the code is comprised of one or more programming languages

## **MODULE IMPLEMENTATION:**

### **PATIENT'S LOGIN PAGE:**

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>User-Login</title>
<link href="http://fonts.googleapis.com/css?family=Lato:300,400,400italic,600,700|Raleway:300,400,500,600,700|Crete+Round:400italic" rel="stylesheet" type="text/css" />
<link rel="stylesheet" href="vendor/bootstrap/css/bootstrap.min.css">
<link rel="stylesheet" href="vendor/fontawesome/css/font-awesome.min.css">
<link rel="stylesheet" href="vendor/themify-icons/themify-icons.min.css">
```

```
<link href="vendor/animate.css/animate.min.css" rel="stylesheet" media="screen">
<link href="vendor/perfect-scrollbar/perfect-scrollbar.min.css" rel="stylesheet" media="screen">
<link href="vendor/switchery/switchery.min.css" rel="stylesheet" media="screen">
<link rel="stylesheet" href="assets/css/styles.css">
<link rel="stylesheet" href="assets/css/plugins.css">
<link rel="stylesheet" href="assets/css/themes/theme-1.css" id="skin_color" />
</head>
<body class="login">
<div class="row">
<div class="main-login col-xs-10 col-xs-offset-1 col-sm-8 col-sm-offset-2 col-md-4 col-md-offset-4">
<div class="logo margin-top-30">
<a href="/index.php"><h2> HMS | Patient Login</h2></a>
</div>
<div class="box-login">
<form class="form-login" method="post">
<fieldset>
<legend>
Sign in to your account
</legend>
<p>
Please enter your name and password to log in.<br />
<span style="color:red;"></span></p>
<div class="form-group">
<span class="input-icon">
<input type="text" class="form-control" name="username" placeholder="Username">
<i class="fa fa-user"></i> </span>
</div>
<div class="form-group form-actions">
<span class="input-icon">
<input type="password" class="form-control password" name="password" placeholder="Password">
<i class="fa fa-lock"></i>
</span><a href="forgot-password.php">Forgot Password ?</a>
</div>
<div class="form-actions">
```

```
<button type="submit" class="btn btn-primary pull-right" name="submit">Login <i class="fa fa-arrow-circle-right"></i>
</button></div>
<div class="new-account">Don't have an account yet?
<a href="registration.php">Create an account
</a></div></fieldset></form>
<div class="copyright">
</span><span class="text-bold text-uppercase"> Hospital ManagementSystem</span>.
</div></div></div></div>
<script src="vendor/jquery/jquery.min.js"></script>
<script src="vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="vendor/modernizr/modernizr.js"></script>
<script src="vendor/jquery-cookie/jquery.cookie.js"></script>
<script src="vendor/perfect-scrollbar/perfect-scrollbar.min.js"></script>
<script src="vendor/switchery/switchery.min.js"></script>
<script src="vendor/jquery-validation/jquery.validate.min.js"></script>
<script src="assets/js/main.js"></script>
<script src="assets/js/login.js"></script>
<script> jQuery(document).ready(function() {Main.init();
Login.init();
});
</script>
</body>
</html>
```

## **DOCTOR'S LOGIN PAGE:**

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Doctor | Dashboard</title>
<link href="http://fonts.googleapis.com/css?family=Lato:300,400,400italic,600,700|Raleway:300,400,500,600,700|Crete+Round:400italic" rel="stylesheet" type="text/css" />
<link rel="stylesheet" href="vendor/bootstrap/css/bootstrap.min.css">
<link rel="stylesheet" href="vendor/fontawesome/css/font-awesome.min.css">
<link rel="stylesheet" href="vendor/themify-icons/themify-icons.min.css">
<link href="vendor/animate.css/animate.min.css" rel="stylesheet" media="screen">
<link href="vendor/perfect-scrollbar/perfect-scrollbar.min.css" rel="stylesheet" media="screen">
<link href="vendor/switchery/switchery.min.css" rel="stylesheet" media="screen">
<link href="vendor/bootstrap-touchspin/jquery.bootstrap-touchspin.min.css" rel="stylesheet" media="screen">
<link href="vendor/select2/select2.min.css" rel="stylesheet" media="screen">
<link href="vendor/bootstrap-datepicker/bootstrap-datepicker3.standalone.min.css" rel="stylesheet" media="screen">
<link href="vendor/bootstrap-timepicker/bootstrap-timepicker.min.css" rel="stylesheet" media="screen">
<link rel="stylesheet" href="assets/css/styles.css">
<link rel="stylesheet" href="assets/css/plugins.css">
<link rel="stylesheet" href="assets/css/themes/theme-1.css" id="skin_color" />

</head>
<body>
<div id="app">
<div class="sidebar app-aside" id="sidebar">
<div class="sidebar-container perfect-scrollbar">
<nav>
<div class="navbar-title">
<span>Main Navigation</span>
```

```
</div>
<ul class="main-navigation-menu">
<li>
<a href="dashboard.php">
<div class="item-content">
<div class="item-media">
<i class="ti-home"></i>
</div>
<div class="item-inner">
<span class="title"> Dashboard </span>
</div>
</div>
</a>
</li>
<li>
<a href="appointment-history.php">
<div class="item-content">
<div class="item-media">
</ul></li>
<li>
<a href="search.php">
<div class="item-content">
<div class="item-media">
<i class="ti-search"></i>
</div>
<div class="item-inner">
<span class="title"> Search </span>
</div></div></a></li></ul></nav></div>
</div>
<div class="app-content">
<header class="navbar navbar-default navbar-static-top">
<!-- start: NAVBAR HEADER --&gt;
&lt;div class="navbar-header"&gt;
&lt;a href="#" class="sidebar-mobile-toggler pull-left hidden-md hidden-lg" class="btn btn-navbar sidebar-</pre>
```

```
toggle" data-toggle-class="app-slide-off" data- toggle-target="#app" data-toggle-click-
outside="#sidebar">
<i class="ti-align-justify"></i>
</a>
<a class="navbar-brand" href="#">
<h2 style="padding-top:20% ">HMS</h2>
</a>
<a href="#" class="sidebar-toggler pull-right visible-md visible-lg" data-toggle-class="app-sidebar-
closed" data-toggle-target="#app">
<i class="ti-align-justify"></i>
</a>
<a class="pull-right menu-toggler visible-xs-block" id="menu-toggler" data- toggle="collapse"
href=".navbar-collapse">
<span class="sr-only">Toggle navigation</span>
<i class="ti-view-grid"></i>
</a>
</div>
<div class="navbar-collapse collapse">
<ul class="nav navbar-right">
<li style="padding-top:2% ">
<h2>Hospital Management System</h2>
</li>
<li class="dropdown current-user">
<a href class="dropdown-toggle" data-toggle="dropdown">
 <span class="username">
<i class="ti-angle-down"></i></i></span>
</a>
<ul class="dropdown-menu dropdown-dark">
<li>
<a href="edit-profile.php">My Profile
</a>
</li>
<li>
<a href="change-password.php">Change Password
```

```
</a>
</li>
<li>
<a href="logout.php">Log Out</a></li></ul></li></ul>
</span>
</div>
<div class="setting-box clearfix">
<span class="setting-title pull-left">Fixed footer</span>
<span class="setting-switch pull-right">
<input type="checkbox" class="js-switch" id="fixed-footer" />
</span>
</div>
<div class="colors-row setting-box">
<div class="color-theme theme-1">
<div class="color-layout">
<label>
<input type="radio" name="setting-theme" value="theme-1">
<span class="ti-check"></span>
<span class="split header"> <span class="color th-header"></span> <span class="color th-collapse"></span> </span>
<span class="split"> <span class="color th-sidebar"><i class="element"></i></span> <span class="color th-body"></span> </span>
</label>
</div>
</div>
<div class="color-theme theme-2">
<div class="color-layout">
<label>
<input type="radio" name="setting-theme" value="theme-2">
<span class="ti-check"></span>
<span class="split header"> <span class="color th-header"></span> <span class="color th-collapse"></span> </span>
</div>
```

```
<script src="vendor/jquery-cookie/jquery.cookie.js"></script>
<script src="vendor/perfect-scrollbar/perfect-scrollbar.min.js"></script>
<script src="vendor/switchery/switchery.min.js"></script>
<script src="vendor/maskedinput/jquery.maskedinput.min.js"></script>
<script src="vendor/perfect-scrollbar/perfect-scrollbar.min.js"></script>
<script src="vendor/bootstrap-touchspin/jquery.bootstrap-touchspin.min.js"></script>
<script src="vendor/autosize/autosize.min.js"></script>
<script src="vendor/selectFx/classie.js"></script>
<script src="vendor/selectFx/selectFx.js"></script>
<script src="vendor/select2/select2.min.js"></script>
<script src="vendor/bootstrap-datepicker/bootstrap-datepicker.min.js"></script>
<script src="vendor/bootstrap-timepicker/bootstrap-timepicker.min.js"></script>
<script src="assets/js/main.js"></script>
<script src="assets/js/form-elements.js"></script>
<script> jQuery(document).ready(function() {Main.init();
FormElements.init();
});
</script></body>
</html>
```

## ADMIN'S LOGIN PAGE:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Admin | Dashboard</title>
<link href="http://fonts.googleapis.com/css?family=Lato:300,400,400italic,600,700|Raleway:300,400,500,600,700|Crete+Round:400italic" rel="stylesheet" type="text/css" />
<link rel="stylesheet" href="vendor/bootstrap/css/bootstrap.min.css">
<link rel="stylesheet" href="vendor/fontawesome/css/font-awesome.min.css">
<link rel="stylesheet" href="vendor/themify-icons/themify-icons.min.css">
<link href="vendor/animate.css/animate.min.css" rel="stylesheet" media="screen">
<link href="vendor/perfect-scrollbar/perfect-scrollbar.min.css" rel="stylesheet" media="screen">
<link href="vendor/switchery/switchery.min.css" rel="stylesheet" media="screen">
<link rel="stylesheet" href="assets/css/styles.css">
<link rel="stylesheet" href="assets/css/plugins.css">
<link rel="stylesheet" href="assets/css/themes/theme-1.css" id="skin_color" />
</head>
<body>
<div id="app">
<div class="sidebar app-aside" id="sidebar">
<div class="sidebar-container perfect-scrollbar">
<nav>
<div class="navbar-title">
<span>Main Navigation</span>
</div>
<ul class="main-navigation-menu">
<li>
<a href="dashboard.php">
<div class="item-content">
<div class="item-media">
<i class="ti-home"></i>
</div>
```

```
<div class="item-inner">
<span class="title"> Dashboard </span>
</div></div></a></li>
<li>
<a href="javascript:void(0)">
<div class="item-content">
<div class="item-media">
<i class="ti-user"></i>
</div>
<div class="item-inner">
<span class="title"> Doctors </span><i class="icon-arrow"></i>
</div></div></a>
<ul class="sub-menu">
<li>
<a href="doctor-specilization.php">
<span class="title"> Doctor Specialization </span>
</a></li>
<li>
<a href="add-doctor.php">
<span class="title"> Add Doctor</span>
<a href="Manage-doctors.php">
<span class="title"> Manage Doctors </span>
</a></li></ul></li>
<li>
<a href="javascript:void(0)">
<div class="item-content">
<div class="item-media">
<i class="ti-user"></i>
</div>
<div class="item-inner">
<span class="title"> Users </span><i class="icon-arrow"></i>
</div>
</div>
</a>
```

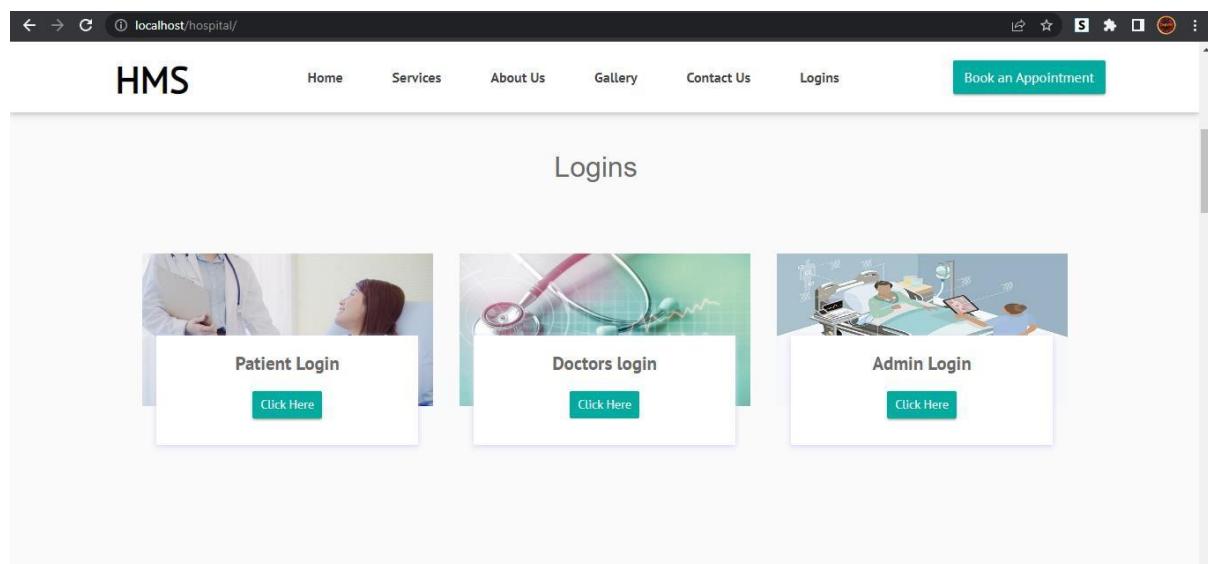
```
<ul class="sub-menu">
<li>
<a href="manage-users.php">
<span class="title"> Manage Users </span>
</a></li></ul></li>
<li>
<a href="javascript:void(0)">
<div class="item-content">
<div class="item-media">
<i class="ti-user"></i>
</div>
<h1 class="mainTitle">Admin | Dashboard</h1>
</div>
<ol class="breadcrumb">
<li>
<span>Admin</span>
</li>
<li class="active">
<span>Dashboard</span>
</li></ol></div>
</section>
<div class="container-fluid container-fullw bg-white">
<div class="row">
<div class="col-sm-4">
<div class="panel panel-white no-radius text-center">
<div class="panel-body">
<p class="links cl-effect-1">
<a href="manage-users.php"></a>
</p></div></div></div>
<div class="col-sm-4">
<div class="panel panel-white no-radius text-center">
<div class="panel-body">
<h2 class="StepTitle">Manage Doctors</h2>
<p class="cl-effect-1">
```

```
<a href="manage-doctors.php"></a>
<div class="col-sm-4">
<div class="panel panel-white no-radius text-center">
<div class="panel-body">
<p class="links cl-effect-1">
<a href="book-appointment.php">
<a href="unread-queries.php">Total New Queries :1
</a>
</a></p></div></div></div>
<footer>
<div class="footer-inner">
<div class="pull-left">
</footer>
<div class="settings panel panel-default hidden-xs hidden-sm" id="settings">
<button ct-toggle="toggle" data-toggle-class="active" data-toggle-target="#settings" class="btn btn-default">
<i class="fa fa-spin fa-gear"></i>
</button>
<div class="panel-heading">Style Selector
</div>
<div class="color-theme theme-2">
<div class="color-layout">
<label>
<input type="radio" name="setting-theme" value="theme-2">
<span class="ti-check"></span>
<span class="split header"> <span class="color th-header"></span> <span class="color th-collapse"></span> </span>
<span class="split"> <span class="color th-sidebar"><i class="element"></i></span> <span class="color th-body"></span> </span>
</label></div></div>
```

```
</div>
<div class="colors-row setting-box">
<div class="color-theme theme-3">
<div class="color-layout">
<input type="radio" name="setting-theme" value="theme-4">
<span class="ti-check"></span>
<div class="colors-row setting-box">
<div class="color-theme theme-5">
<div class="color-layout">
<label>
<input type="radio" name="setting-theme" value="theme-5">
<span class="ti-check"></span>
<span class="split header"> <span class="color th-header"></span> <span class="color th-collapse"></span> </span>
<span class="split"> <span class="color th-sidebar"><i class="element"></i></span> <span class="color th-body"></span> </span>
<div class="color-theme theme-6">
<div class="color-layout">
<script src="assets/js/form-elements.js"></script>
<script> jQuery(document).ready(function() { Main.init();
FormElements.init();
});
</script>
</body>
</html>
```

## **EXECUTION:**

### **HOME PAGE:**



### **Our Key Features**

Take a look at some of our key features



Cardiology



Orthopaedic



Neurologist



#### Contact Form

Enter Name :

Enter Name

Email Address :

Enter Email Address

Mobile Number:

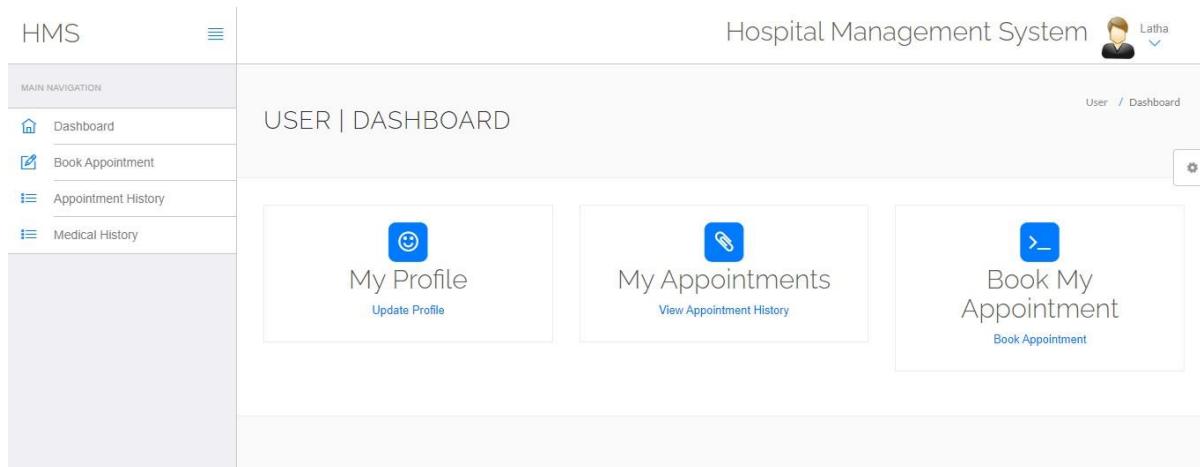
Enter Mobile Number

Enter Message:

Enter Your Message

Send Message

## USER'S PAGE



Hospital Management System

User / Dashboard

USER | DASHBOARD

My Profile

Update Profile

My Appointments

View Appointment History

Book My Appointment

Book Appointment

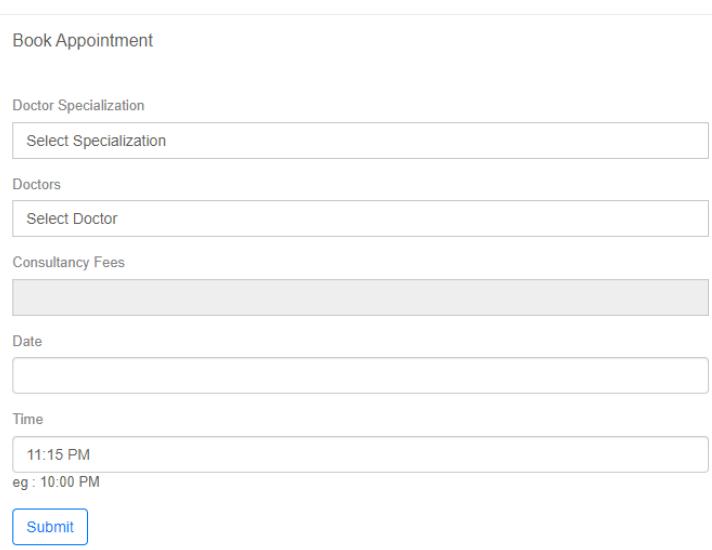


Hospital Management System

User / Appointment History

USER | APPOINTMENT HISTORY

#	Doctor Name	Specialization	Consultancy Fee	Appointment Date / Time	Appointment Creation Date	Current Status	Action
1.	Anuradha	ENT	500	2022-11-10 / 12:45 PM	2022-11-06 17:51:48	Cancel by Doctor	Canceled



Book Appointment

Doctor Specialization

Select Specialization

Doctors

Select Doctor

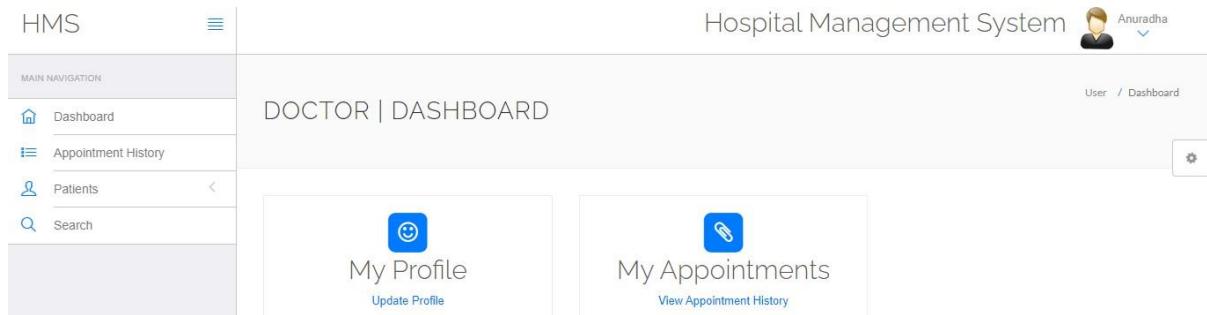
Consultancy Fees

Date

Time

11:15 PM  
eg : 10:00 PM

Submit

**DOCTOR'S PAGE:**

Hospital Management System Anuradha

DOCTOR | DASHBOARD

User / Dashboard

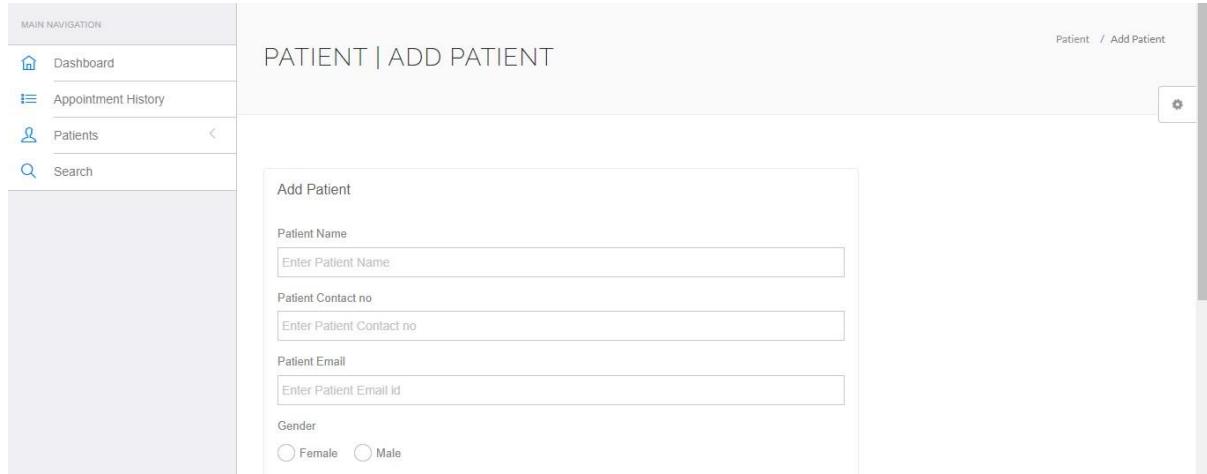
My Profile      My Appointments



DOCTOR | APPOINTMENT HISTORY

Doctor / Appointment History

#	Patient Name	Specialization	Consultancy Fee	Appointment Date / Time	Appointment Creation Date	Current Status	Action
1.	Latha	ENT	500	2022-11-10 / 12:45 PM	2022-11-06 17:51:48	Cancel by you	Canceled
2.	Amit kumar	ENT	500	2022-11-17 / 7:00 PM	2022-11-06 18:46:18	Active	Cancel



PATIENT | ADD PATIENT

Patient / Add Patient

Add Patient

Patient Name  
Enter Patient Name

Patient Contact no  
Enter Patient Contact no

Patient Email  
Enter Patient Email Id

Gender  
 Female  Male

## ADMIN'S PAGE:

**Hospital Management System**

**ADMIN | DASHBOARD**

MAIN NAVIGATION

- Dashboard
- Doctors
- Users
- Patients
- Appointment History
- Consultant Queries
- Doctor Session Logs
- User Session Logs
- Reports
- Pages
- Patient Search

**ADMIN | MANAGE USERS**

**Manage Users**

#	Full Name	Address	City	Gender	Email	Creation Date	Updation Date	Action
1.	Latha	A 123 ABC Apartment GZB 201017	Ghaziabad	female	latha12@test.com	2022-11-06 17:43:56		X
2.	Amit kumar	new Delhi india	New Delhi	male	amitk@gmail.com	2022-11-06 18:45:32		X

**ADMIN | MANAGE DOCTORS**

**Manage Doctors**

#	Specialization	Doctor Name	Creation Date	Action
1.	ENT	Anuradha	2022-10-30 23:46:52	E X
2.	Endocrinologists	Charu Dua	2022-11-04 06:36:41	E X

**ADMIN | VIEW PATIENTS**

**View Patients**

#	Patient Name	Patient Contact Number	Patient Gender	Creation Date	Updation Date	Action
1.	Amit Kumar	1231231230	male	2022-11-06 18:48:31		E

**ADMIN | MANAGE UNREAD QUERIES**

**Manage Unread Queries**

#	Name	Email	Contact No.	Message	Query Date	Action
1.	dhiva	dhiva@gmail.com	1234123456	Its working goof	2022-11-29 23:24:59	F

© 2023, IJSREM | [www.ijsrem.com](http://www.ijsrem.com)

DOI: 10.55041/IJSREM24469

| Page 20

## **CONCLUSION:**

- ❖ The project Hospital Management System (HMS) is for computerizing the workingin a hospital.
- ❖ Working on the project was an excellent experience. It helped us to understand theimportance of planning,
- ❖ The project was successfully completed after a lot of efforts and work hours.
- ❖ This project underwent number of compiling, debugging, removing errors, making itbug free, adding more facilities in Hospital Management System and interactivity making it more reliable and useful.
- ❖ This project focused that scheduling a project and adhering to that schedule creates ahard sense of time-management.
- ❖ It has also let us known that co-operative teamwork always produce effective results.
- ❖ The System has adequate scope for modification in future if it is necessary.
- ❖ The entire project has been developed and deployed as per the requirements stated bythe user.
- ❖ It is found to be bug free as per the testing standards that are implemented.
- ❖ Finally, we like to conclude that we put all our efforts throughout the development ofour project and tried to fulfill most of the requirements of the user

## **FUTURE WORK:**

- ❖ The proposed system is Hospital Management System.
- ❖ We can enhance this system by including more facilities like pharmacy system for the stock details of medicines in the pharmacy. Providing such features enable the users to include more comments into the system.
- ❖ There are also few features which can be integrated with this system to make it more flexible.
- ❖ Below list shows the future points to be consider :
  - Getting the current status of patient.
  - Including a different module for pharmacy, LAB, Bed Allotment and many more
  - Including a Frequently Asked Questions Section.

## **REFERENCE:**

- ❖ <https://www.officetimeline.com/make-gantt-chart/excel>
- ❖ <https://medium.com/@datamateuaeconomics/hospital-management-system-features-objectives-62eeb13f4fc4>
- ❖ R.S Pressman, Software Engineering: A Practitioner's Approach, Mc-Graw-Hill, Edition-7 (2020).
- ❖ P. Jalote, An Integrated Approach to Software Engineering, Narosa publication house, Edition -3 (2021).