



**TATA CONSULTANCY SERVICES**

**DIGICARE**  
**Hospital Appointment System**

**Final Project Report**

**By:**  
**TCS Remote Intern**  
**Sanjeevan Kumar & Mudit Rastogi**

**Mentor: Anjali Saxena**  
**Faculty Guide: Ankur Bhardwaj**

# TABLE OF CONTENTS

## **1. Introduction**

## **2. Technologies Used**

## **3. Module's Information**

3.1 User

3.2 Administrator

## **4. Data Flow Diagram**

4.1 0-Level DFD

4.2 1-Level DFD

## **5. Test Case**

5.1 User

5.2 Administrator

## **6. Screenshots**

6.1 Administrator

6.2 User

6.3 Database

## **7. Future Enhancements**

## INTRODUCTION

Technology has transformed many aspects of life in the 21st century. It is needed to develop a web application which would facilitate the patients or user to book an appointment to a Doctor through an effective way. Apart from booking appointments, through system a user can search for the Doctors in different hospital in different cities as per the specialization.

The various advantages of using the hospital appointment system are as follows:

- Convenient – While this is convenient for most people, it has made things particularly easier for people residing in remote locations.
- Saves Time and Effort - You can save the time needed to book appointment earlier and waiting in the queue for your turn.
- Availability-Knowledge about availability of doctor in the particular city and particular hospital.

User can cancel or modify the appointments. Only authorised users with valid credentials are allowed to make booking. New user can register by providing mandatory details with secured password. Admin of this application can make update in the database of the doctor, hospital and generate report for appointment in given period.

## TECHNOLOGIES USED

### **A. WEB Server**

**Apache:** The Apache HTTP Server, colloquially called Apache, is the world's most used web server software. Apache played a key role in the initial growth of the World Wide Web. Apache supports a variety of features, many implemented as compiled modules which extend the core functionality. These can range from server-side programming language support to authentication schemes. Some common language interfaces support Perl, Python and PHP. Apache features configurable error messages, DBMS-based authentication databases, and content negotiation. It is also supported by several graphical user interfaces (GUIs). It supports password authentication and digital certificate authentication. Because the source code is freely available, anyone can adapt the server for specific needs, and there is a large public library of Apache add-ons.

#### **Performance:**

Instead of implementing a single architecture, Apache provides a variety of Multi Processing Modules (MPMs), which allow Apache to run in a process-based, hybrid (process and thread) or event-hybrid mode, to better match the demands of each particular infrastructure. This implies that the choice of correct MPM and the correct configuration is important. Where compromises in performance need to be made, the design of Apache is to reduce latency and increase throughput, relative to simply handling more requests, thus ensuring consistent and reliable processing of requests within reasonable time-frames.

### **B. Database Server:**

**MySQL** is an open-source relational database management system (RDBMS). The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open-source web application software stack (and other "AMP" stacks). LAMP is an acronym for "Linux, Apache, MySQL, Perl /PHP/Python".

#### **MySQL Workbench: phpMyAdmin**

phpMyAdmin is a free and open source tool written in PHP intended to handle the administration of MySQL with the use of a web browser. It can perform various tasks such as creating, modifying or deleting databases, tables, fields or rows; executing SQL statements; or managing users and permissions. The software, which is available in 78 languages, is maintained by the phpMyAdmin Project. It can import data from CSV and SQL, and transform stored data into any format using a set of predefined functions, like displaying BLOB-data as images or download-links.

## **C. Software Technologies:**

### **1. Front End Development: HTML, CSS, Javascript, JQuery**

JavaScript

- JavaScript was basically used for client-side validation.
- JavaScript is compatible with all versions of Microsoft Internet Explorer and Netscape Navigator.
- We have small java scripts, which are lightweight and will not hinder the download time of the HTML document significantly.

### **2. Backend Development: PHP**

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP: Hypertext Preprocessor

## MODULE INFORMATION

### **Administrator**

The Administrator module consists of the following services:

- **Login:** Person with admin authority can log in into the Hospital Appointment web application with valid credentials i.e. username and valid admin password.
- **Add a hospital:** In this process, depending upon on managerial decision or public demand the administrator may add new hospital in the database.
- **Add a Doctor:** Administrator of the application has task to add the new entry of the doctor in the particular hospital with their proper information like name, age, qualification, specialization and experience.
- **Remove Hospital:** Any hospital can be removed by the admin from the given list of hospital in that particular city.
- **Remove Doctor:** Doctors belonging to particular hospital of particular city can be removed from list.
- **Change Password:** Administrator can change his/her password at regular basis to enhance the security of the application.
- **Logout:** After all the work Administrator must log out from the application so no one else can breach the security.

### **User**

The user module consists of the following services:

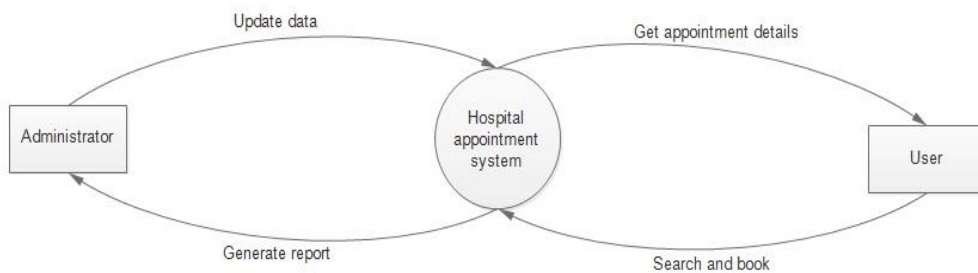
- **Login:** Existing user with correct credentials must log in into the web application to avail the services provided by the system.
- **Register:** New User must register to the application by providing mandatory details like Name, Email-ID and one password which will be stored in database.
- **Edit Profile:** User can edit his/her profile and may provide other details like Mobile No., Date of Birth, and Profile Image etc.
- **Appointment List:** User can view the list of appointment made by him/her and access the further services provided by application.

- **Book an Appointment:** User can book appointment by searching for the doctor in the particular city and particular hospital selected by user. After selecting the doctor from available list user can proceed to book appointment by filling the details of the patient, patient age, patient gender. Appointment date and appointment time slot.
- **Check Availability:** Check is the important feature to get the knowledge about availability of doctor before heading towards the hospital.
- **Modify Appointment:** User can modify the appointment made before and change the date, time slot of the appointment.
- **Cancel Appointment:** User can cancel appointment he made before, if he/she wants to discontinue the service from particular doctor.
- **Download Appointment Slip:** User can download slip of the appointment made and can present the slip at time of appointment.
- **Logout:** User must logout from the application to ensure that no one else can make use of service from your account.

# DATA FLOW DIAGRAM

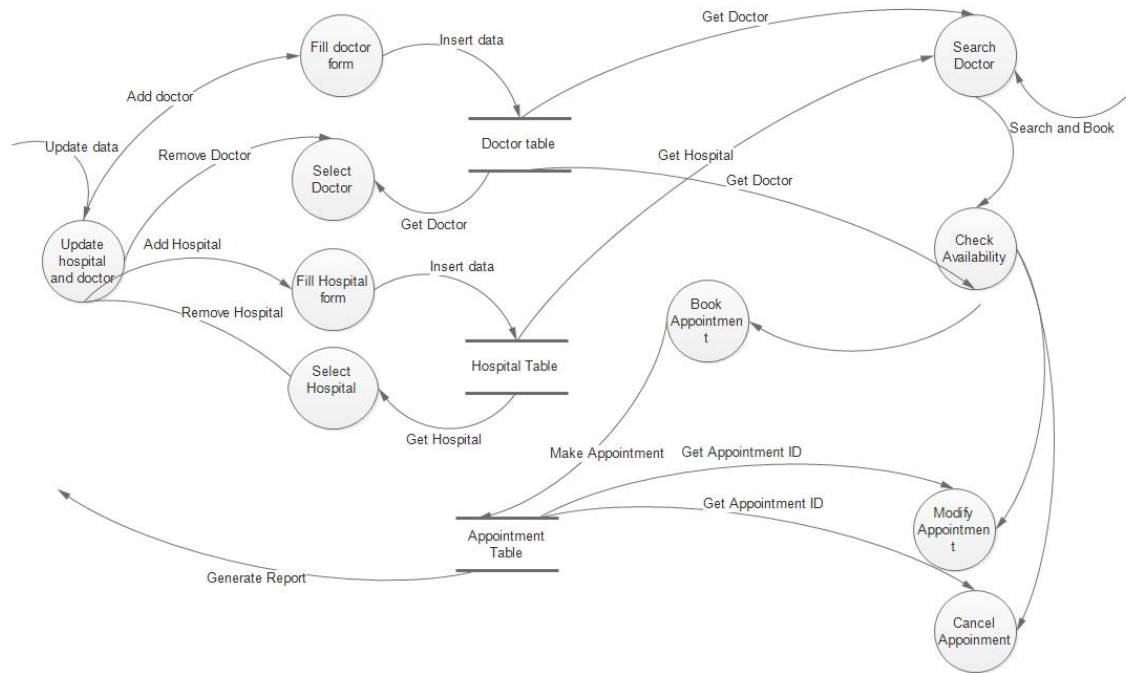
A **data flow diagram (DFD)** illustrates how data is processed by a system in terms of inputs and outputs. As its name indicates its focus is on the flow of information, where data comes from, where it goes and how it gets stored.

## 0-Level Data Flow Diagram





## 1-Level Data Flow Diagram



## TEST CASES

A test case is usually a single step, or occasionally a sequence of steps, to test the correct behaviour/functionality, features of an application. An expected result or expected outcome is usually given. Additional information that may be included are test case ID, test case, description test step or order of execution number related requirement(s.) depth test category, author, check boxes for whether the test can be or has been automated, pass/fail and remarks.

### USER TEST CASES

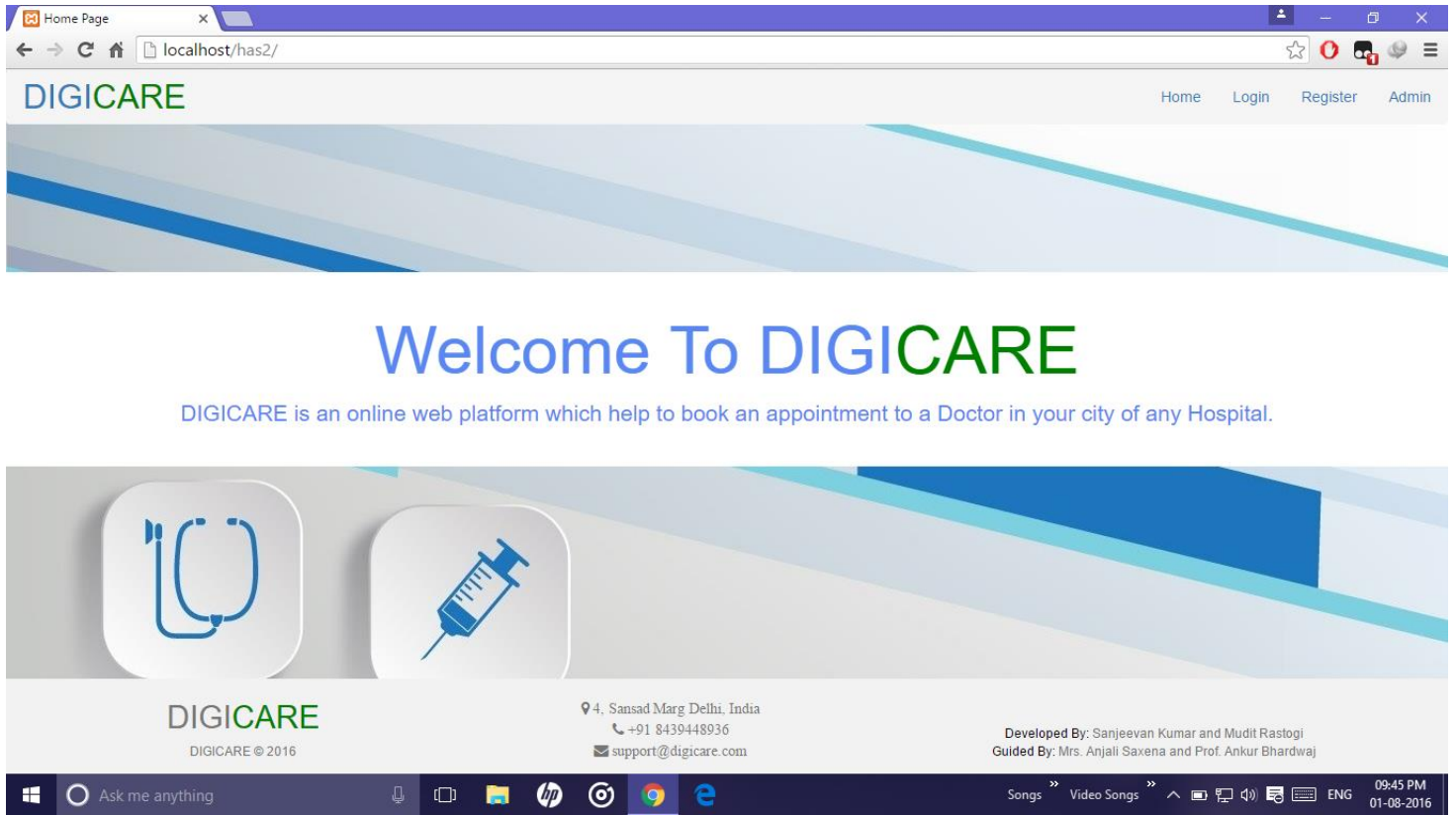
CASE ID	TEST CASE	EXPECTED OUTPUT	ACTUAL OUTPUT	PASS/FAIL
1	Login Test	Login with proper credentials	Successful	Pass
2	Register Test	Proper register with all Validation	Successful	Pass
3	Edit Profile	Update profile information	Successful	Pass
4	Book Appointment	Entry in database for with unique appointment Id	Successful	Pass
5	Modify Appointment	Change in details for particular appointment id	Successful	Pass
6	Cancel Appointment	Deletion of that appointment	Successful	Pass
7	Download Appointment Slip	Generation and Download of slip pdf format	Successful	Pass
8	Appointment List	List of available appointment	Successful	Pass
9	Check Availability	List of available and booked slot	Successful	Pass

## ADMIN TEST CASES

CASE ID	TEST CASE	EXPECTED OUTPUT	ACTUAL OUTPUT	PASS/FAIL
1	Add Doctor	Entry to doctor table with unique doctor Id	Successful	Pass
2	Remove Doctor	Deletion of doctor id from doctor table	Successful	Pass
3	Add Hospital	Entry to hospital table with unique hospital Id	Successful	Pass
4	Remove Hospital	Deletion of hospital id from hospital table	Successful	Pass

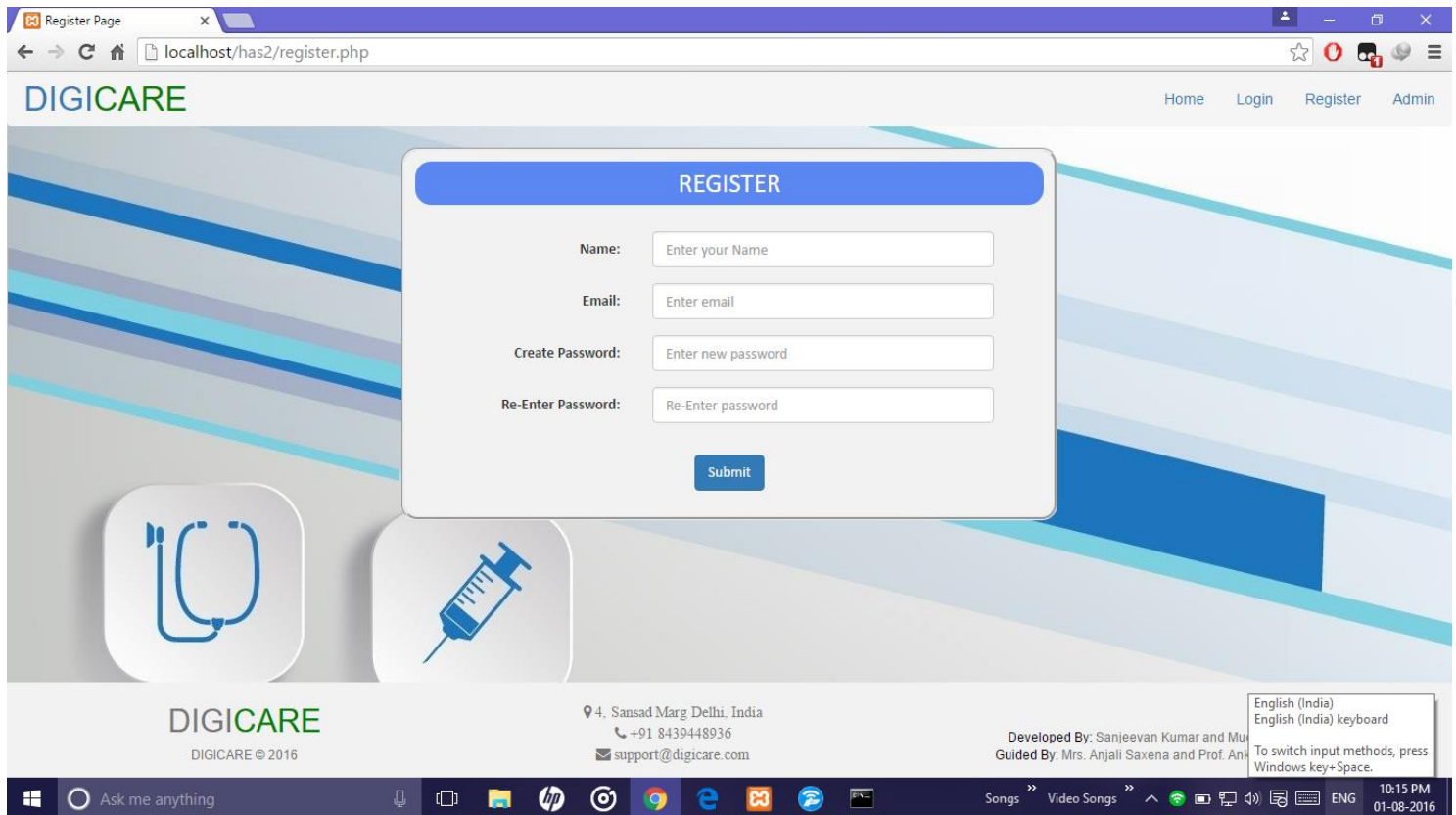
## SCREENSHOTS

### 1.Home Page:



## 2.Register Page:

Here User Register himself/herself by providing details like Name, Email Address, and Password to authenticate in future login. All the details get stored in database in registered user table.



The screenshot shows a web browser window with the address bar displaying 'localhost/has2/register.php'. The page features a header with the 'DIGICARE' logo and navigation links for 'Home', 'Login', 'Register', and 'Admin'. The main content area is a light blue background with a central white 'REGISTER' form. The form includes four input fields: 'Name' (placeholder: 'Enter your Name'), 'Email' (placeholder: 'Enter email'), 'Create Password' (placeholder: 'Enter new password'), and 'Re-Enter Password' (placeholder: 'Re-Enter password'). A blue 'Submit' button is located below the fields. The background also features a stethoscope and a syringe icon. The footer contains the 'DIGICARE' logo, copyright information 'DIGICARE © 2016', contact details for Sansad Marg Delhi, India, and a list of developers and guides. A Windows taskbar is visible at the bottom with the time '10:15 PM' and date '01-08-2016'.

Register Page

localhost/has2/register.php

DIGICARE

Home Login Register Admin

REGISTER

Name:

Email:

Create Password:

Re-Enter Password:

Submit

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Guided By: Mrs. Anjali Saxena and Prof. An

English (India)  
English (India) keyboard  
To switch input methods, press  
Windows key+Space.

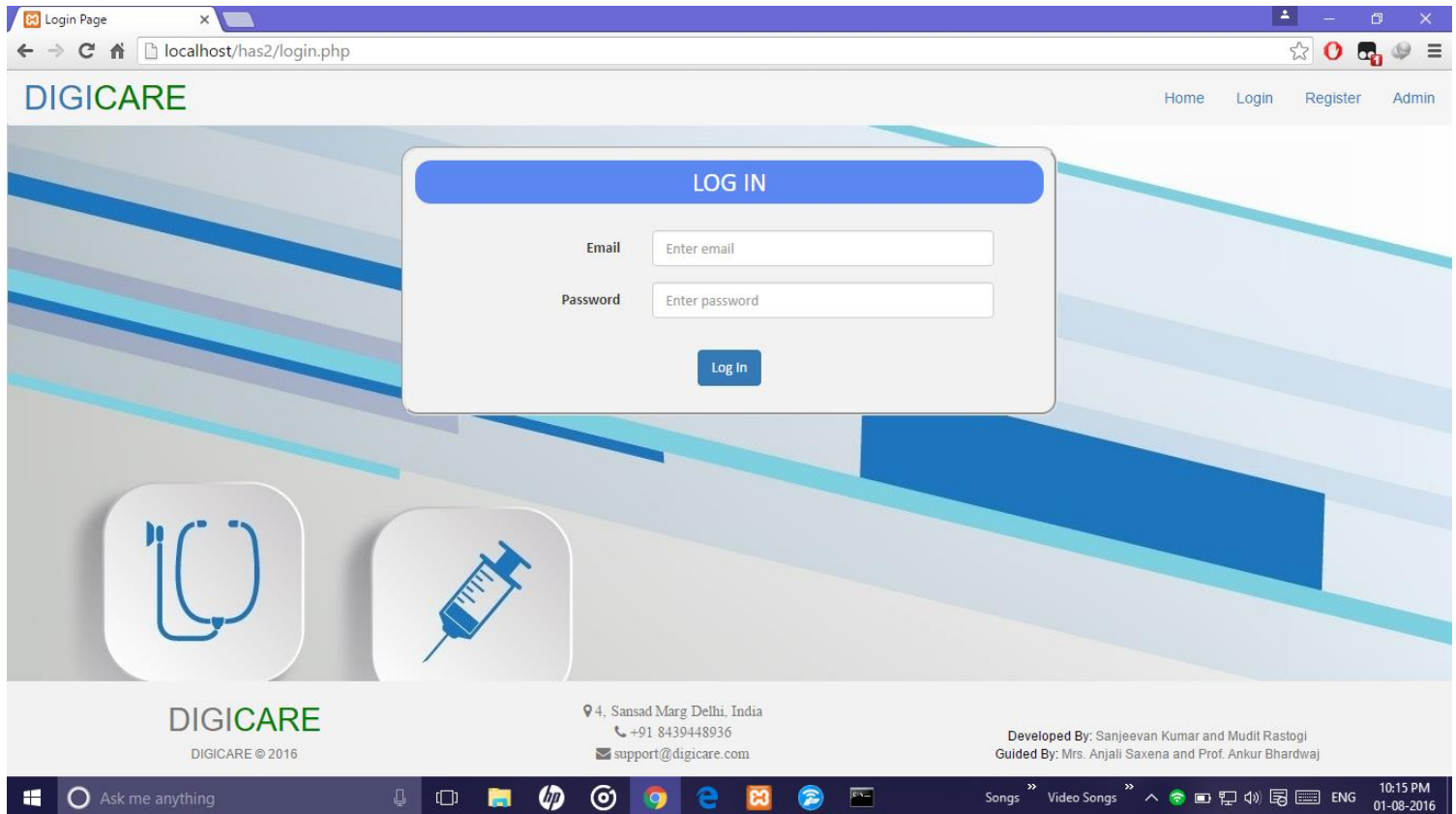
Ask me anything

Songs Video Songs

ENG 10:15 PM 01-08-2016

### 3.Login Page:

User enters the correct credentials to login into his/her account. Proper validation of E-mail and password verification ensure authenticated user.



The screenshot displays a web browser window with the address bar showing 'localhost/has2/login.php'. The page features a header with the 'DIGICARE' logo and navigation links for 'Home', 'Login', 'Register', and 'Admin'. A central 'LOG IN' form is overlaid on a background of blue and white diagonal stripes. The form includes input fields for 'Email' and 'Password', each with a placeholder text 'Enter email' and 'Enter password' respectively, and a 'Log In' button. Below the form, there are two circular icons: one with a stethoscope and another with a syringe. The footer contains the 'DIGICARE' logo, contact information for '4, Sansad Marg Delhi, India' with a phone number '+91 8439448936' and email 'support@digicare.com', and development credits: 'Developed By: Sanjeevan Kumar and Mudit Rastogi' and 'Guided By: Mrs. Anjali Saxena and Prof. Ankur Bhardwaj'. The Windows taskbar at the bottom shows the time as 10:15 PM on 01-08-2016.

Login Page

localhost/has2/login.php

DIGICARE

Home Login Register Admin

LOG IN

Email Enter email

Password Enter password

Log In

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Ask me anything

Songs Video Songs

ENG 10:15 PM 01-08-2016

## 4.User Home Page:

Here, you will see your profile details and your past appointments that you have made. Also it gives “Book Appointment” button to book for a doctor. You can cancel any appointment or modify it. You can able to download appointment slip of the booking made which you can present at the hospital site. USER can also edit his Profile and Update his or her details.

The screenshot displays the 'User Home Page' of the DIGICARE application. The browser address bar shows 'localhost/has2/user\_menu.php'. The page features a navigation bar with links: Home, Check Availability, Book Appointment, Sanjeevan, and Logout. The main content area is divided into two primary sections: 'Welcome' and 'Your Appointments'.

**Welcome Section:** This section displays the user's profile for 'Sanjeevan'. It includes a profile picture of a man, his email 'san@gmail.com', phone number '8439448936', date of birth '13-09-1995', and location 'Ghaziabad'. A checkmark icon indicates 'Appointments: 2'.

**Your Appointments Section:** This section lists two appointments. Each entry includes a doctor's profile picture, name, qualifications, hospital, specialty, experience, and languages. To the right of each entry are details about the patient, appointment date, and time. Below each appointment entry are three buttons: 'Modify Appointment', 'Cancel Appointment', and 'Download Appointment Slip'.

**Appointment Details:**

Doctor	Qualifications	Hospital	Specialty	Experience	Languages	Patient Name	Age	Date	Time
Dr. Sanjeevan Kumar	MBBS, MD	Apollo, Delhi	ORTHO	8 years	English, Hindi	Ankit Sharma	22	03-08-2016	10:20 am-10:40 am
Dr. Pawan	MBBS, MD	Apollo, Delhi	DERMATOLOGIST	6 years	English, Hindi	S Shukla	20	05-08-2016	11:10 am-11:30 am

At the bottom of the 'Your Appointments' section is a 'Book New Appointment' button.

**Footer:** The footer contains the DIGICARE logo, copyright notice 'DIGICARE © 2016', contact information (address: 4, Sansad Marg Delhi, India; phone: +91 8439448936; email: support@digicare.com), and developer information (Developed By: Sanjeevan Kumar and Mudit Rastogi; Guided By: Mrs. Anjali Saxena and Prof. Ankur Bhardwaj).

The Windows taskbar at the bottom shows the system time as 10:34 PM on 01-08-2016, with the language set to ENG.

## 5.Doctor Search:

You will require selecting the City and Hospital Name to search for doctor in that hospital. You will see the list of doctors with their qualifications, experiences, language of communication. You will be able to book appointment and Check Availability of Doctor.

Search Doctor

localhost/has2/appointment\_search.php

**DIGICARE** Home Check Availability Book Appointment Sanjeevan Logout


### Search Doctor

Select City:

Select Hospital:

Search

### Select Doctor




**Dr. Sanjeevan Kumar**  
MBBS,MD  
Apollo , Delhi  
**ORTHO**

☒ 8 Years of experience  
☒ English,Hindi

Book Appointment

Check Availability



**Dr. Pawan**  
MBBS,MD  
Apollo , Delhi  
**DERMATOLOGIST**

☒ 6 Years of experience  
☒ English,Hindi

Book Appointment

Check Availability

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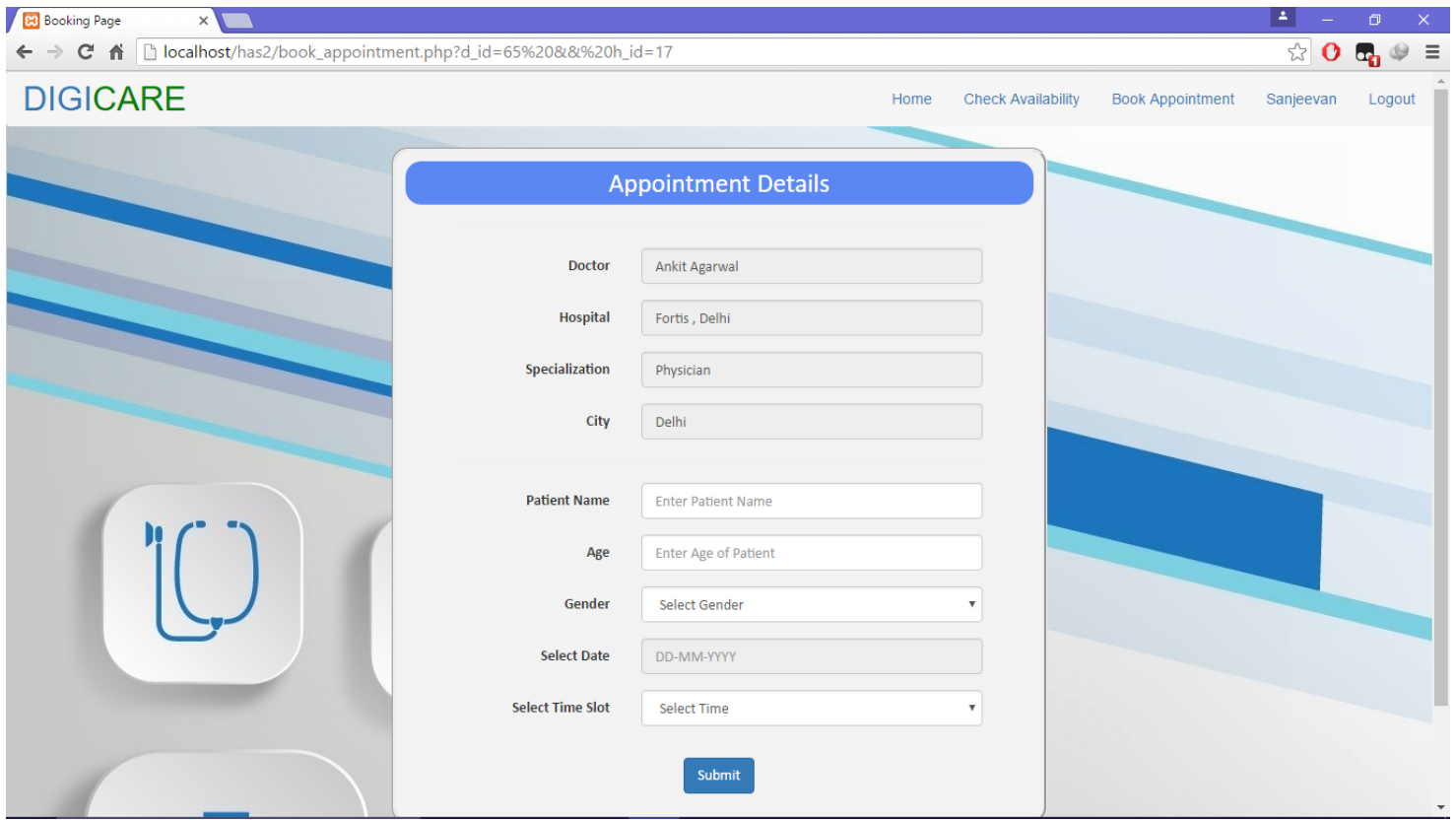
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Guided By: Mrs. Anjali Saxena and Prof. Ankur Bhardwaj

Songs » Video Songs » ENG 10:35 PM 01-08-2016



## 6.Book Appointment Page:

You will ask to fill Appointment Details in the provided form such as patient name, age, gender along with Date and Time of booking after checking the availability of the Doctor.



The screenshot shows a web browser window with the address bar displaying `localhost/has2/book_appointment.php?d_id=65%20&&%20h_id=17`. The page features the DIGICARE logo and a navigation menu with links: Home, Check Availability, Book Appointment, Sanjeevan, and Logout. A modal form titled "Appointment Details" is centered on the page. The form contains the following fields:

- Doctor: Ankit Agarwal
- Hospital: Fortis , Delhi
- Specialization: Physician
- City: Delhi
- Patient Name: Enter Patient Name
- Age: Enter Age of Patient
- Gender: Select Gender (dropdown menu)
- Select Date: DD-MM-YYYY
- Select Time Slot: Select Time (dropdown menu)

A blue "Submit" button is located at the bottom of the form.

## 7. Check Availability:

Check Availability

localhost/has2/availability.php?d\_id=61&&h\_id=7


**DIGICARE** Home Check Availability Book Appointment Sanjeevan Logout

**Check Availability**

Select Date

**Check**

Available 10:00 am-10:20 am	Booked 10:20 am-10:40 am
Available 10:40 am-11:00 am	Available 11:10 am-11:30 am
Available 11:30 am-11:50 am	Available 12:00 pm-12:20 pm
Available 12:20 pm-12:40 pm	Available 12:40 pm-01:00 pm



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## 8.Edit Profile:


Profile

localhost/has2/edit\_profile.php

DIGICARE

Home Check Availability Book Appointment Sanjeevan Logout

### Profile



Remove Image

Change Profile Pic

Name

Email

Birth Date

Mobile

Gender

City



## 10.Admin Login:

Default password for asmin is : **123**

Admin can change password after first login.

The screenshot displays the DIGICARE Admin Login interface. At the top, the browser address bar shows 'localhost/has2/admin\_login.php'. The page header includes the DIGICARE logo and navigation links: Home, Login, Register, and Admin. The main content area features a central 'ADMIN LOG IN' form with the following fields:

- User Name: Admin
- Password: Enter password
- Log In button

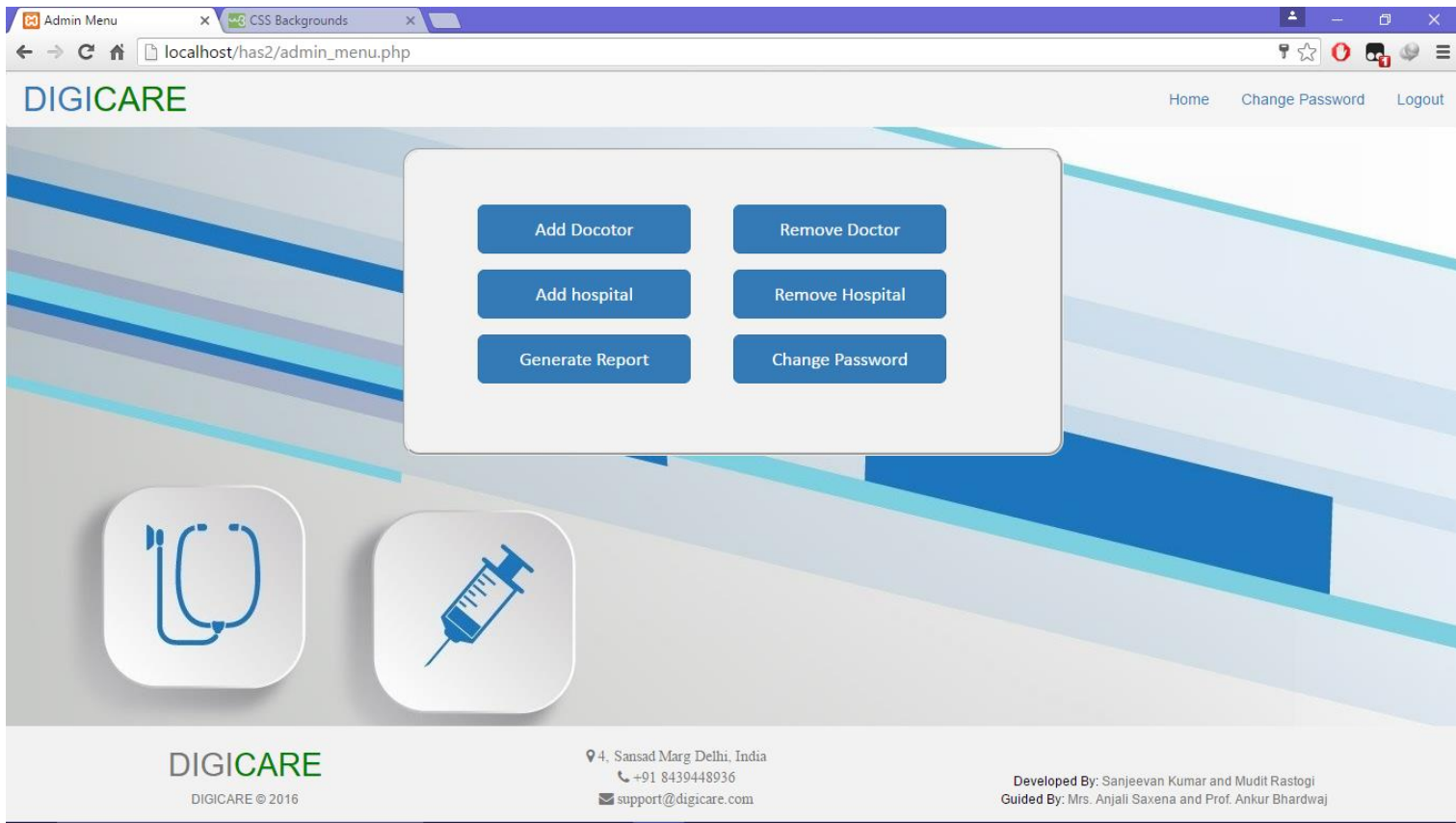
The background of the login form is decorated with a stethoscope and a syringe icon. The footer section contains the following information:

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- 4, Sansad Marg Delhi, India
- +91 8439448936
- support@digicare.com
- Developed By: Sanjeevan Kumar and Mudit Rastogi
- Guided By: Mrs. Anjali Saxena and Prof. Ankur Bhardwaj

The Windows taskbar at the bottom shows the system clock as 10:16 PM on 01-08-2016, along with various application icons and system tray icons.

## 11.Admin Functions:

Admin of this system is providing with the functionalities like Add Doctor, Add Hospital, Remove Doctor, Remove Hospital and Generate Report of the appointments.



## 12.Add Hospital:

Browser tabs: Add Hospital, CSS Backgrounds

Address bar: localhost/has2/add\_hospital.php



Navigation links: Home, Change Password, Logout

### DIGICARE

#### Add Hospital

Hospital Name

City

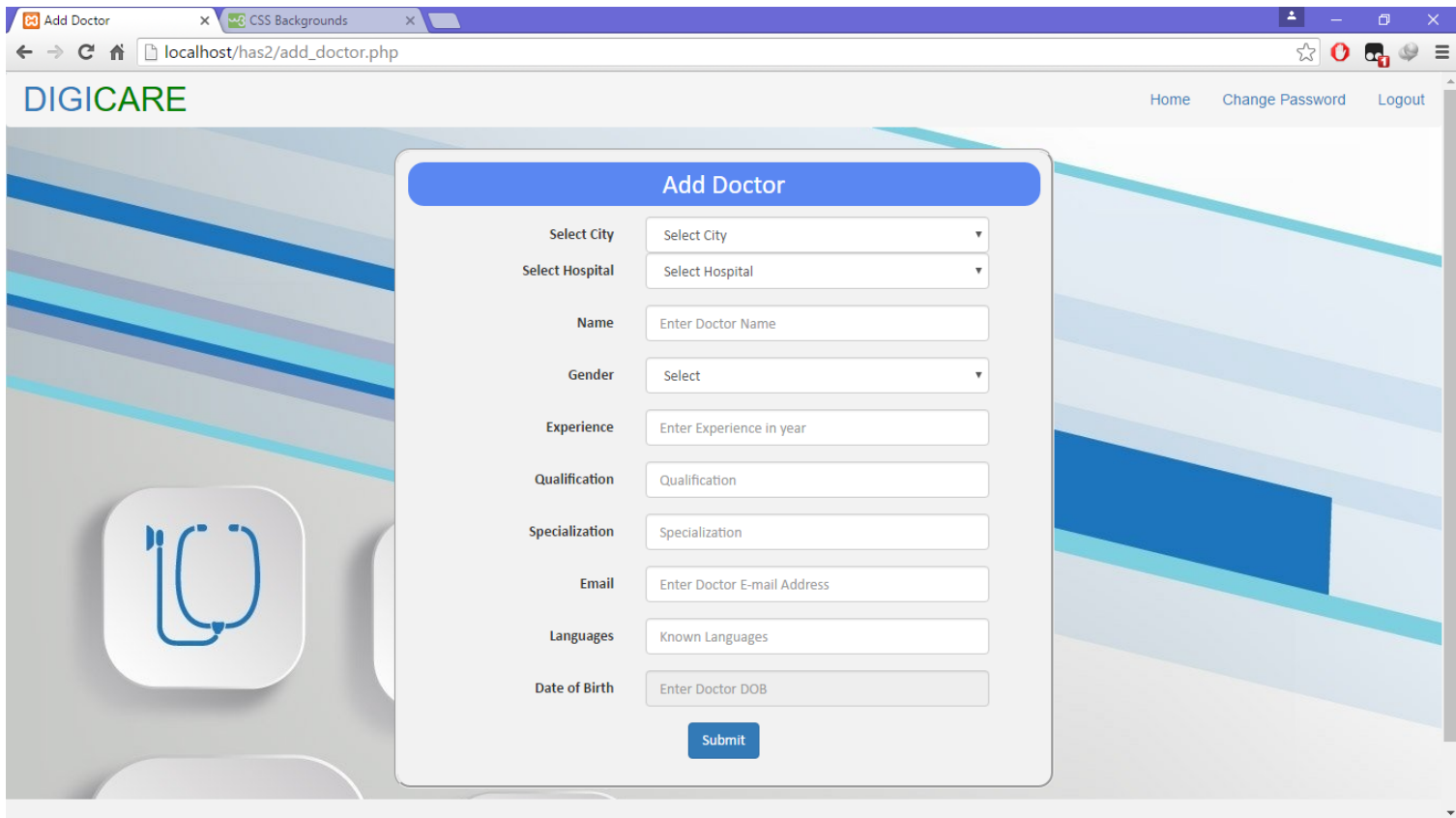


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## 13.Add Doctor:



The screenshot displays a web browser window with two tabs: 'Add Doctor' and 'CSS Backgrounds'. The address bar shows the URL 'localhost/has2/add\_doctor.php'. The page header features the 'DIGICARE' logo on the left and navigation links 'Home', 'Change Password', and 'Logout' on the right. The main content area is a light gray background with a blue and white stethoscope icon on the left. A central modal form titled 'Add Doctor' contains the following fields:

Add Doctor	
Select City	<input type="text" value="Select City"/>
Select Hospital	<input type="text" value="Select Hospital"/>
Name	<input type="text" value="Enter Doctor Name"/>
Gender	<input type="text" value="Select"/>
Experience	<input type="text" value="Enter Experience in year"/>
Qualification	<input type="text" value="Qualification"/>
Specialization	<input type="text" value="Specialization"/>
Email	<input type="text" value="Enter Doctor E-mail Address"/>
Languages	<input type="text" value="Known Languages"/>
Date of Birth	<input type="text" value="Enter Doctor DOB"/>
<input type="button" value="Submit"/>	



## 14.Remove Hospital:

Remove Hospital   CSS Backgrounds

localhost/has2/del\_hospital.php



**DIGICARE**   Home   Change Password   Logout

**Select Hospital to Remove**

Select City:

Select Hospital:

**Remove**

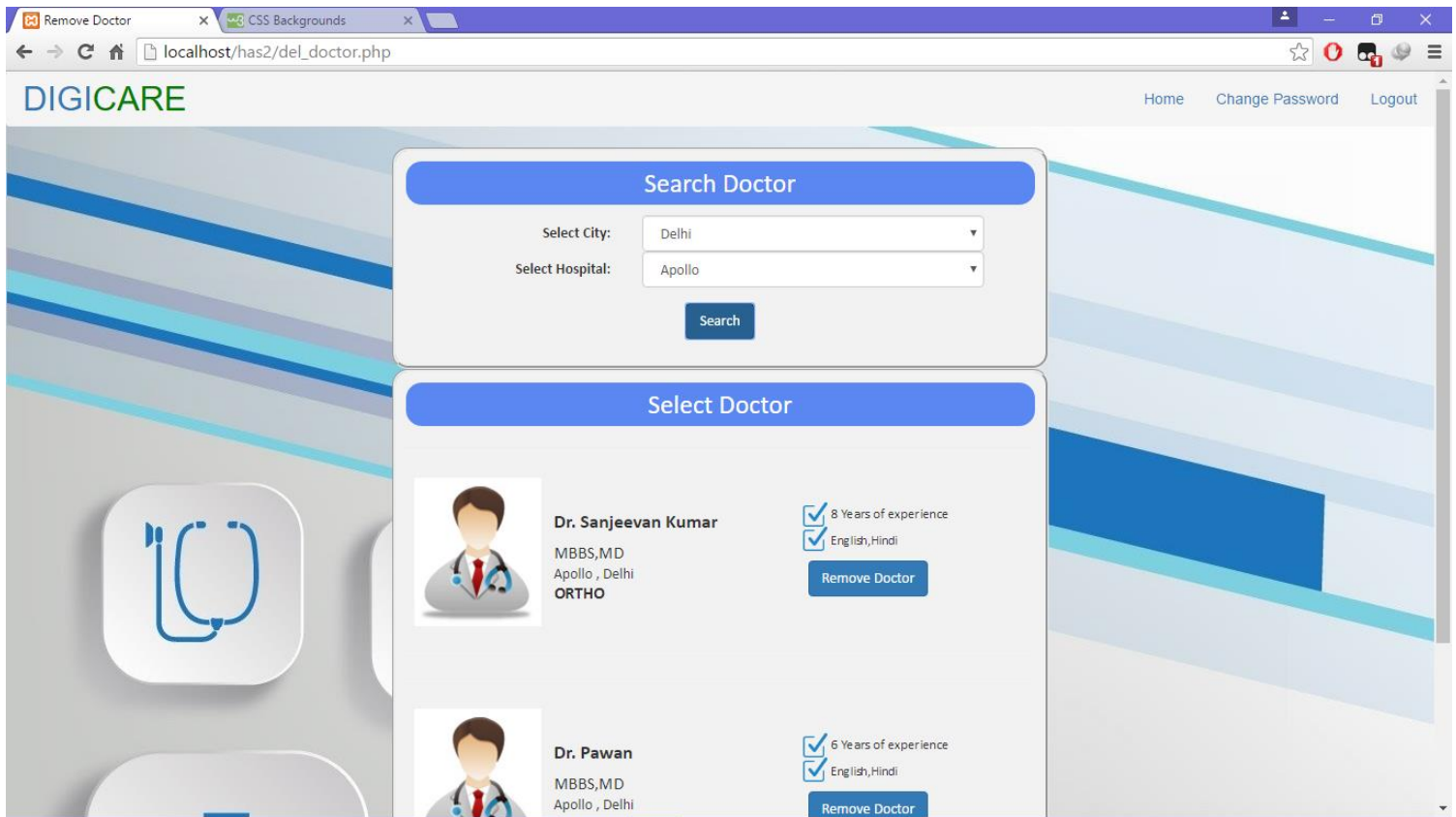
 

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## 15.Remove Doctor:



## 16.Admin Change Password Page:

Change Admin Password x CSS Backgrounds x

localhost/has2/change\_password.php

DIGICARE Home Change Password Logout

### Change Password

Old Password

New Password

Re Enter New Password

Submit

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# DATABASE

## 1.Database Tables:

The screenshot displays the phpMyAdmin web interface in a browser window. The address bar shows the URL: `localhost/phpmyadmin/db_structure.php?server=1&db=has&token=6aec559676f1c350cc96baa43ee70e01`. The interface is for the 'has' database on a server at 127.0.0.1.

On the left sidebar, the database structure is shown with a tree view. The 'has' database is expanded, showing tables: `admin`, `appointments`, `doctor`, `hospital`, and `registered`. Other databases like `information_schema`, `mysql`, `performance_schema`, `phpmyadmin`, and `tcs_reg` are also listed.

The main panel shows the 'Structure' tab for the 'has' database. It contains a table listing the database's tables:

Table	Action	Rows	Type	Collation	Size	Overhead
<code>admin</code>	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	1	InnoDB	latin1_swedish_ci	16 Kib	-
<code>appointments</code>	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	3	InnoDB	latin1_swedish_ci	16 Kib	-
<code>doctor</code>	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	4	InnoDB	latin1_swedish_ci	16 Kib	-
<code>hospital</code>	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	7	InnoDB	latin1_swedish_ci	16 Kib	-
<code>registered</code>	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	3	InnoDB	latin1_swedish_ci	16 Kib	-
<b>5 tables</b>	<b>Sum</b>	<b>18</b>	<b>InnoDB</b>	<b>latin1_swedish_ci</b>	<b>80 Kib</b>	<b>0 B</b>

Below the table list, there are options to 'Check all' and 'With selected:'. There are also links for 'Print view' and 'Data dictionary'. A 'Create table' button is visible, followed by a form with 'Name:' and 'Number of columns: 4'. A 'Go' button is at the bottom right of the form.

The Windows taskbar at the bottom shows the time as 07:21 PM on 03-08-2016, with various system icons and open applications.

## 2. Table 'registered' :

The screenshot displays the phpMyAdmin interface for the 'has' database, specifically the 'registered' table. The table structure is shown in 'Table structure' view, listing 9 columns with their respective data types, collations, and attributes. The 'user\_id' column is the primary key and is auto-incrementing. Other columns include 'name', 'email', 'password', 'dob', 'mobile', 'gender', 'city', and 'image', all of which are primary keys. The 'image' column is a varchar(40) type.

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	user_id	int(6)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext More
2	name	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	email	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
4	password	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
5	dob	varchar(15)			Yes	NULL		Change Drop Primary Unique Index Spatial Fulltext More
6	mobile	varchar(15)			Yes	NULL		Change Drop Primary Unique Index Spatial Fulltext More
7	gender	varchar(10)			Yes	-Select-		Change Drop Primary Unique Index Spatial Fulltext More
8	city	varchar(30)			Yes	NULL		Change Drop Primary Unique Index Spatial Fulltext More
9	image	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More

Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', and 'Add to central columns'. There is also a 'Remove from central columns' option. At the bottom, there are tabs for 'Space usage' and 'Row statistics'.

## 2. Table 'hospital' :

The screenshot displays the phpMyAdmin web interface. The left sidebar shows a database tree with 'has' selected, containing tables like 'admin', 'appointments', 'doctor', 'hospital', 'registered', 'information\_schema', 'mysql', 'performance\_schema', 'phpmyadmin', and 'tcs\_reg'. The main panel shows the 'Table structure' view for the 'hospital' table in the 'has' database. The table has three columns: 'hos\_id' (int(6), primary key, auto-increment), 'hos\_name' (varchar(40)), and 'hos\_city' (varchar(30)). Below the column list, there are options to 'Add 1 column(s) after hos\_city'. The 'Information' tab is active, showing 'Space usage' (Data: 16 KIB, Index: 0 B, Total: 16 KIB) and 'Row statistics' (Format: Compact, Collation: latin1\_swedish\_ci, Next autoindex: 19, Creation: Jul 18, 2016 at 11:07 PM).

Server: 127.0.0.1 » Database: has » Table: hospital

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	hos_id	int(6)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext More
2	hos_name	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	hos_city	varchar(30)			No	None		Change Drop Primary Unique Index Spatial Fulltext More

Check all With selected: Browse Change Drop Primary Unique Index Add to central columns Remove from central columns

Print view Propose table structure Track table Move columns Improve table structure

Add 1 column(s) after hos\_city Go

+ Indexes

Information

Space usage		Row statistics	
Data	16 KIB	Format	Compact
Index	0 B	Collation	latin1_swedish_ci
Total	16 KIB	Next autoindex	19
		Creation	Jul 18, 2016 at 11:07 PM

localhost/phpmyadmin/tbl\_structure.php?db=has&table=hospital&token=6aec559676f1c350cc96baa43ee70e01

07:22 PM 03-08-2016

### 3. Table 'doctor' :

The screenshot displays the phpMyAdmin interface for the 'has' database, specifically the 'Table structure' view for the 'doctor' table. The table structure is as follows:

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	doc_id	int(6)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext More
2	hos_id	int(6)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	name	varchar(30)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
4	gender	varchar(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
5	email	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
6	dob	varchar(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
7	qualification	varchar(60)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
8	experience	int(5)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
9	image	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
10	specialization	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
11	languages	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext More

Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', and 'Add to central columns'. There is also a 'Remove from central columns' option. At the bottom, there is a 'Print view' button, a 'Propose table structure' button, a 'Track table' button, a 'Move columns' button, and an 'Improve table structure' button. A form at the bottom allows adding a new column: 'Add 1 column(s) after languages Go'. The console at the bottom shows the command 'nation'.

### 3. Table 'appointments' :

The screenshot displays the phpMyAdmin interface for the 'appointments' table. The left sidebar shows a database tree with 'has' selected, containing tables like 'admin', 'appointments', 'doctor', 'hospital', 'registered', 'information\_schema', 'mysql', 'performance\_schema', 'phpmyadmin', and 'tcs\_reg'. The main panel shows the 'Table structure' view for the 'appointments' table. The table has 10 columns: app\_id, user\_id, doc\_id, hos\_id, patient\_name, patient\_age, gender, date, time\_slot, and slot\_no. Each column is an integer or varchar with specific attributes like 'Primary', 'Unique', 'Index', 'Spatial', and 'Fulltext'. The bottom of the interface shows a taskbar with various application icons and a system clock indicating 07:22 PM on 03-08-2016.

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	app_id	int(10)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext More
2	user_id	int(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	doc_id	int(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
4	hos_id	int(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
5	patient_name	varchar(30)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
6	patient_age	int(3)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
7	gender	varchar(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
8	date	varchar(20)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
9	time_slot	varchar(20)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
10	slot_no	int(6)			No	None		Change Drop Primary Unique Index Spatial Fulltext More



### 3. Table 'admin' :

The screenshot displays the phpMyAdmin web interface. The left sidebar shows a tree view of databases, with 'has' selected. The main panel shows the 'Table structure' view for the 'admin' table. The table structure is as follows:

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	password	varchar(40)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values More

Below the table structure, there are options to 'Add 1 column(s) after password' and a 'Go' button. The 'Information' tab is active, showing 'Space usage' and 'Row statistics'.

Space usage		Row statistics	
Data	16 KiB	Format	Compact
Index	0 B	Collation	latin1_swedish_ci
Total	16 KiB	Creation	Jul 11, 2016 at 11:35 PM

The bottom of the interface shows a Windows taskbar with the time 07:22 PM on 03-08-2016.

## **FUTURE ENHANCEMENTS**

Presently the application is more oriented towards the user and admin basic functions. In this vast population users are supposed to be from various linguistic cultures. In future the problem of accessing of large population can be increased by building application in different application depending upon the wish.

Further enhancements can be made by introducing more facilities like appointment at clinics, blood bank, testing centres etc. and introducing the digital payment platform for people using internet to pay bills.

Admin of the application will have features like generating the user report card, payment bill, test report and dynamically switching the appointments of doctor to respective patients.