

Online Consultation Platform (Telemedicine)



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Submitted in the partial fulfillment of the Requirement of the
University of Sindh, for the Award of the Degree of Bachelor of
Science in Information Technology

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UNIVERSITY OF SINDH,

JAMSHORO

2021

DECLARATION

We undertake that, the undertaken project titled “Online Consultation Platform (Telemedicine)” is our own work. No portion of the work presented in this project has been submitted in support of another award or qualification either at this institution or at elsewhere. Where material has been used from other sources, it has been properly acknowledged / referred.

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CERTIFICATE OF APPROVAL

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DEDICATION

This whole project and thesis is carried out and made through the constant hard work and, we were capable to do this only because of the certain reasons and the personalities, which gradually and constantly helped us in the certain steps of the development of this project and thesis.

We thanks to **Prof. Dr. Zeeshan Bhatti (Supervisor)** for providing the environment and resources to complete the project work and thesis. Our project supervisor **Prof Dr. Zeeshan Bhatti** for their meaningful advices, insightful criticism and patient encouragement at every stage of the work of this thesis, without their supervision we may not have been able to complete such work. Thank you very much sir for always being there for us.

ACKNOWLEDGEMENTS

We are thankful with the core of our heart to almighty ALLAH. Lord of the universe, who made it possible to complete our project report successfully. The success of a project depends on the contributions and supports of many people whom we would like to appreciate for their support in the duration of this project.

Our special appreciation and thanks to our family who always stands by us no matter what happens. Their full support and encouragement were such a boost for our capabilities and confidence to undergo this period last but certainly not least, we also want to thank all our friends for their invaluable assistances towards this project thesis.

Special thanks to everyone who involve in this project either direct or indirectly. We must admit here that it was impossible for us to completing our project thesis without the supports of them that we mentioned above.

ABSTRACT

The healthcare problems are growing rapidly day-by-day and people have to spend lot of money for their daily check-up, because they do not have an easy and free access to their check-up. This online consultation platform application aims for an easy access and use for providing almost free of cost facility to users. Therefore, the development of online consultation platform (Telemedicine) is essentially required. The primary goal of this project is the development of healthcare application, which can assist people to check the availability of doctors to take appointments easily and take treatment easily. Telemedicine is paving the way for a new era for healthcare that is changing the way we make medical decisions and how we receive treatment. Telemedicine involves the use of electronic communications and software to provide clinical services to patients.

LIST OF ABBREVIATIONS

HTML	Hypertext Markup Language
CSS	Cascading Style Sheets
PHP	Hypertext Preprocessor
MYSQL	My Structured Query Language

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Chapter No. 1 **INTRODUCTION**

1.1 BACKGROUND

Online Consultation Platform (Telemedicine): A unique platform web app for both patients and hospital stuffs (Doctors, Management). The primary target of this design is to make communication experience between patient and doctor better than we currently have. Hospital is a place where no one willingly wants to visit but there are times when we need to. The old system of hospitals are not very user friendly. The first big stem is waiting in the queue for long hours. Many other problems make your hospital experience worse. Our focus is to make peoples life easier in the hour of need. We are working to design such a system that will reduce a lot of paperwork and save peoples time. Existing software: You will find hospital management system software in various hospitals in our country. They have great features to help the hospital but that does not allow the patients to manage their own data. This is what gave us the initial motivation to build a system where the system will work for all. To overcome those limitations we are trying to build an online consultation platform site for hospitals that will help everyone working in the hospital and their patients to get appointments easily.

Numerous individuals see technology-supported consulting as no less than a fractional answer for the intricate difficulties of conveying medical care to a maturing and progressively assorted populace. The wellbeing administration faces increasing paces of ongoing disease and reliance, yet in addition an extent of

residents who are sure to self-oversee sickness, and worked on long haul standpoint for significant conditions like malignant growth. The UK's National Information Board has contended that to react viably to these segment and epidemiological patterns, we want an alternate sort of wellbeing administration in which the customary short term interview, for instance, will turn out to be progressively out of date (Personalized health and care).

Let's discuss about this online consultation platform in details and see how it will help us. There are no such things that comes out without any limitations but we focused to overcome the best we could do. Our focus was to determine the features for the patients. They are the large community of this system and they deserve to get the most out of this system. There is no doubt that our existing systems does not provide us the facility to check for our information related to our hospital documents and other important documents for example prescriptions and test reports. If these documents are close to us then we can at least be in some peace. We no longer have to worry about carrying those reports and of course, it will help us the best in terms of losing those precious documents and get into trouble. The relief will be huge and so will be the benefit. I hope that this will give us the benefit that we are expecting.

1.2 HOSPITAL HEALTH CARE

Various healthcare system program for management are present out there but there any not too many which provides the patients any functionality. The healthcare system has been automated but the benefit is not for all. In such a situation I have figured out that there should be something for the patients. Some simple features for checking appointment, asking for appointment, prescription and test reports can reduce the hassle up to 70-80%. Because those are the sector, where we face a lot of trouble and can find a way out. Therefore, this will allow us something that we were waiting for so long. The world is moving to internet so this is the right time to think about this. I have checked some healthcare system and online consultation platform on internet and some local programs that the hospital stuffs are using near me. They are also very well designed and have rich features too but nothing for the patients to be happy about is there. If we compare the benefits and the satisfaction form every point of view then we cannot conclude things beneficial for all. If a system does not provide help for every user group then it cannot be perfect system.

Now as pandemic is on fire and has already hit every corner of the world, online consultation becomes important for Internet clinical consideration, which dodges the detriments of conventional methods of looking for clinical consideration and gives patients a helpful and reasonable method of administration. It additionally decreases the odds of spreading irresistible illnesses by diminishing the quantity of patients to clinics. Established in 2006, Good Doctor Online is one of China's driving Internet clinical stage. After almost 14 years of legitimate activity, Good Doctor Online has made amazing accomplishments in many fields, including emergency clinic/specialist data request, online counsel (by picture, phone, or video), short term arrangement, sickness the executives after meeting, family specialist, illness information promotion, and so on The stage has been broadly trusted by specialists and patients.

1.3 OBJECTIVES

To identify great practice and illuminate its execution according to clinician–patient conferences through newly developed online doctor consultation app to view timetable.

- View Patients and Doctors
- Manage Appointments
- Easy and Find Best Doctor

1.4 SCOPE

Remote consultation of online doctor consultation offers possible benefits to patients (who are saved the expense and burden of movement) and the medical care framework (e.g., they might be more practical). Yet, fears have been communicated that they might be clinically dangerous or potentially less OK to patients or staff, and they bring huge specialized, calculated and administrative difficulties.

The proof base on far off conferences by video innovation, for example, Skype is as of now scanty yet has started to accumulate. Specifically, a new survey distinguished 27 distributed investigations of the utilization of Skype in clinical consideration, everything except one of which announced positive benefits.⁴ Most of these examinations were brief depictions of little, pilot-stage projects (some with as not many as five patients). Underneath, we survey the better essential investigations from Artfield and partner's audit that are applicable to our own concentrate alongside a few extra examinations distributed as of late.

Chapter No. 2 **BACKGROUND AND LITERATURE REVIEW**

2.1 THE WEBSITE

A **website** is a set of related web pages served from a single web domain. A website is hosted on at least one web server, accessible via a network such as the Internet or a private local area network through an Internet address known as a Uniform resource locator. All publicly accessible websites collectively constitute the World Wide Web.

A webpage is a document, typically written in plain text interspersed with formatting instructions of Hypertext Markup Language (HTML, XHTML). A webpage may incorporate elements from other websites with suitable markup anchors.

Webpages are accessed and transported with the Hypertext Transfer Protocol (HTTP), which may optionally employ encryption (HTTP Secure, HTTPS) to provide security and privacy for the user of the webpage content. The user's application, often a web browser, renders the page content according to its HTML markup instructions onto a display terminal.

2.2 HISTORY OF WEBSITE

The World Wide Web (WWW) was created in 1990 by the British CERN physicist Tim Berners-Lee. On 30 April 1993, CERN announced that the World Wide Web would be free to use for anyone.

Before the introduction of HTML and HTTP, other protocols such as File Transfer Protocol and the gopher protocol were used to retrieve individual files from a server. These protocols offer a simple directory structure which the user navigates

and chooses files to download. Documents were most often presented as plain text files without formatting or were encoded in processor formats. [1]

2.3 DYNAMIC WEBSITE

A dynamic website is one that changes or customizes itself frequently and automatically. Server-side dynamic pages are generated "on the fly" by computer code that produces the HTML and CSS. There are a wide range of software systems, such as CGI, Java Servlets and Java Server Pages (JSP), Active Server Pages and ColdFusion (CFML) that are available to generate dynamic web systems and dynamic sites. Various web application frameworks and web template systems are available for general-use programming languages like PHP, Perl, Python, and Ruby, to make it faster and easier to create complex dynamic web sites.

2.3.1 AVANTAGES OF DYNAMIC WEBSITE

- Much more functional Website
- Much easier to update
- New content brings people back to the site and helps in the search engines
- Can work as a system to allow staff or users to collaborate. [2]

2.4 INTRODUCTION TO RESPONSIVE WEBSITE

Responsive web design (or "RWD") is a type of web design that provides a customized viewing experience for different browser platforms. A website created with RWD will display a different interface depending on what device is used to access the site. For example, a responsive website may appear one way on a laptop, another way on a tablet, and still another way on smart phone.

Today, many people access websites from mobile devices, rather than desktop computers or laptops. While most smart phones can display regular websites, the content is difficult to read and even harder to navigate. Therefore, many web

developers now use responsive web design to provide a better web browsing experience on small screens. [3]

2.5 WEB CONTENT MANAGEMENT SYSTEM

Web content management system (WCMS) is mainly used to control and publish text-based document like articles, text documents and information. A CMS is normally able to provide the following features:

- To create Admin panel.
- Identify the main users and their roles.
- An ability to assign certain roles and rights within the email id and password.
- Administrator has the full control system.
- Accounts will be given to faculty members.

2.5.1 IMPORTANCE OF ONLINE PLATFORM CMS

Content management system (CMS) used to manage the content of a website. It helps in updating the website easily. Web designers on the servers install it. Therefore, that it can be used website admin. A person using CMS need not be technical or web practical understanding nor do he/she require a technical training for managing the content of a website. In a CMS, data can be anything like - document, event, and picture etc. through CMS, one can easily add, edit, and delete images and text in website.

2.5.2 MAIN FEATURES OF ONLINE CONSULATION PLATOFM CMS

2.5.2.1 ADMINISTRATOR

- Administrator has the full control over system.
- To manage the doctors
- To manage the patients and appointments

- To add notices
- To manage the site settings

2.5.2.2 MONITORING USERS

- Patient will create his account using registration form.
- Doctors, Receptionist, Pharmacist will be added by admin and they will use their credentials to login their dashboard.

2.6 HIGHLIGHTED FEATURES

- Administrators
- Doctor
- Patient
- Receptionist

2.6.1 ADMINISTRATOR FEATURES

- Add doctors and view doctors
- Add patients and view patients
- Add and Delete Notices
- Recover the user password
- Maintaining and manage the appointments of patients to the doctor
- Manage site settings

2.6.2 DOCTOR FEATURES

- Doctor can login to their account
- Doctor can edit and update the password and email
- Doctor can view the patients
- Doctor can see the notices from admin
- Doctor can see their appointment schedule which are confirmed

2.6.3 AREA OF APPLICATION

This website or platform is designed to make the healthcare system or hospital system better and create ease to the patients and for doctors so patients can easily contact to the doctors and get treatment from them.

2.7 ADVANTAGES OF ONLINE CONSULTATION PLATFORM

- Check BP Guidelines and video
- Confirm Appointments through Phone or Email
- Globally accessible
- Central place for all tasks
- 24 Hour accessible
- User friendly
- Secure & Personalized
- Saving of time & man power

2.8 SIMILAR PROJECTS

There are many projects like this:

2.8.1 DOCTOR SMART HEALTH ECOSYSTEM

This is an automatic health eco system where patients and doctors can connect through online support call and take their appointment and treatment from home or any other place except hospital or clinic, Consult users regardless of their location. The distance is not a problem anymore, Audience in all countries of presence Doctor Smart will know about your clinic, you can discuss every case with colleagues from other areas of medicine and countries. You will also get access to international cases and practices.

2.8.2 MEDESK TELEMEDICINE

This system includes telemedicine software you can use to connect with your patients by video straight from the platform. You can turn any of your scheduled appointments into an online consultation simply by clicking a button. Doctors can now help patients no matter where they are located in the world. The Medesk telemedicine platform is a fully integrated video calling tool that benefits your clinic, doctors, and patients.

Chapter No. 3 **SYSTEM ANALYSIS & DESIGN**

3.1 REQUIREMENTS

We have analyzed the system and found the following two types of requirements in the system.

3.1.1 FUNCTIONAL REQUIREMENTS

The ONLINE CONSULTATION PLATFORM (TELEMEDICINE) has the following functional requirements:

- Administrator must be able to login and manage the whole system like Manage doctors , patients , appointment , receptionist , pharmacists
- Admin can add notices and dynamic FAQs
- Admin can manage site settings
- Receptionist can manage appointments confirm or cancel

3.1.2 NON-FUNCTIONAL REQUIREMENTS

The Online Consultation Platform has the following non-functional requirements:

- Availability of every kind of information and contact system for users and visitors
- Website should be fully dynamic
- Detailed information on each page

3.2 DESIGN OF ONLINE CONSULTATION PLATFORM

3.2.1 USE CASE FOR ADMIN

To use the online consultation platform admin can login through credentials, manage the whole CMS System, and do everything. As shown in the figure 3-1.

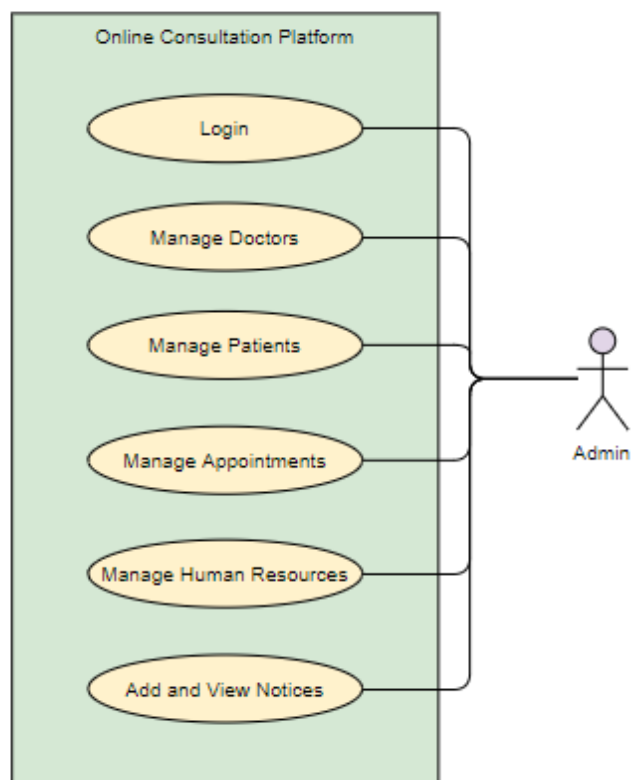


Figure 3-1: Use Case Diagram of Admin

3.2.2 USE CASE FOR DOCTOR

To use the online consultation platform the doctor should be login and view others doctors, patients and his appointments and view notices As shown in the figure 3-2.

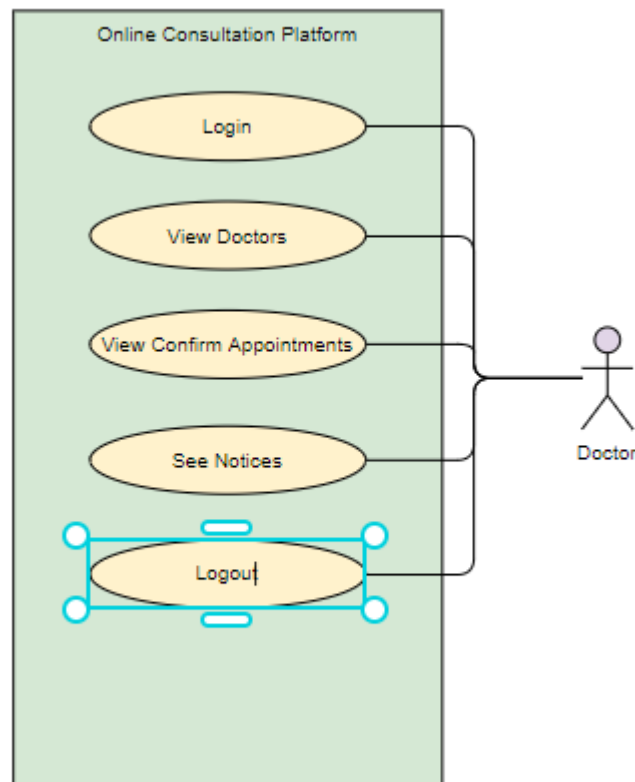


Figure 3-2: Use Case Diagram of Doctor

3.2.3 USE CASE FOR PATIENT

This use case is for patient, patient register first, then login to his dashboard, and manage these things. As shown in the figure 3-3.

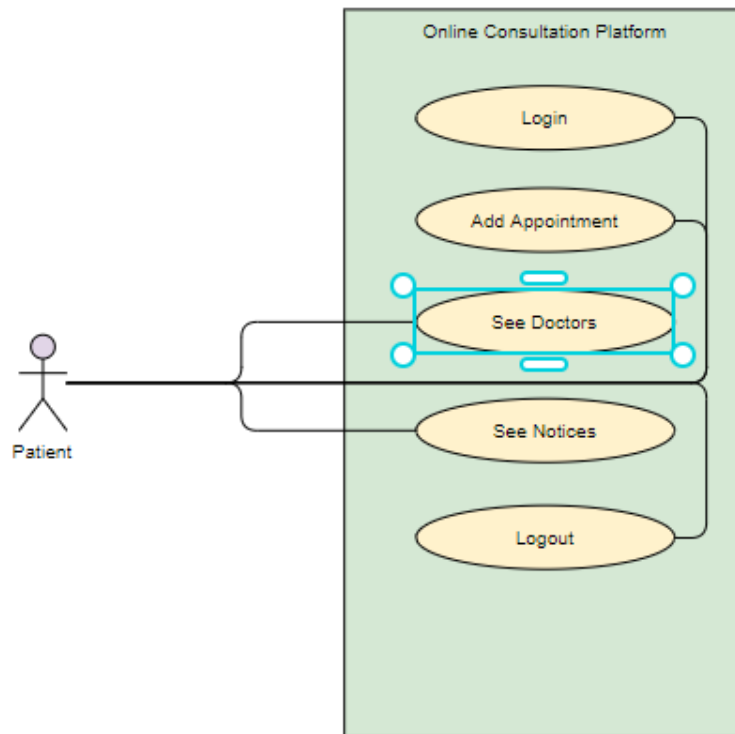


Figure 3-3: Use Case Diagram of Admin

3.3 SEQUENCE DIAGRAM

The Figure 3-4 shows the Sequence diagram of the system.

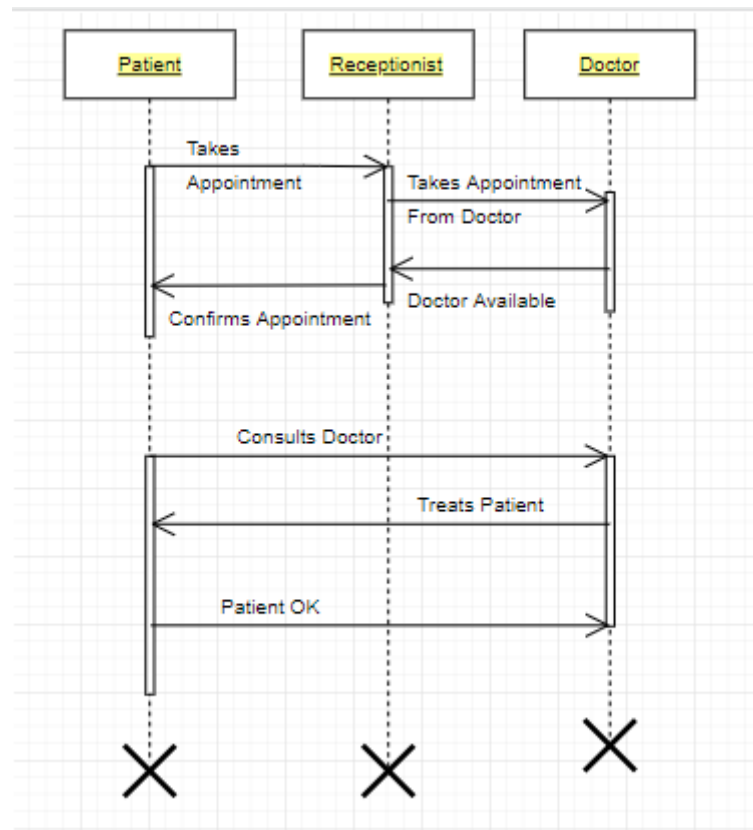


Figure 3-4: Sequence Diagram

3.4 ENTITY RELATIONSHIP DIAGRAM

The Figure 3-5 shows the E-R diagram of the system.

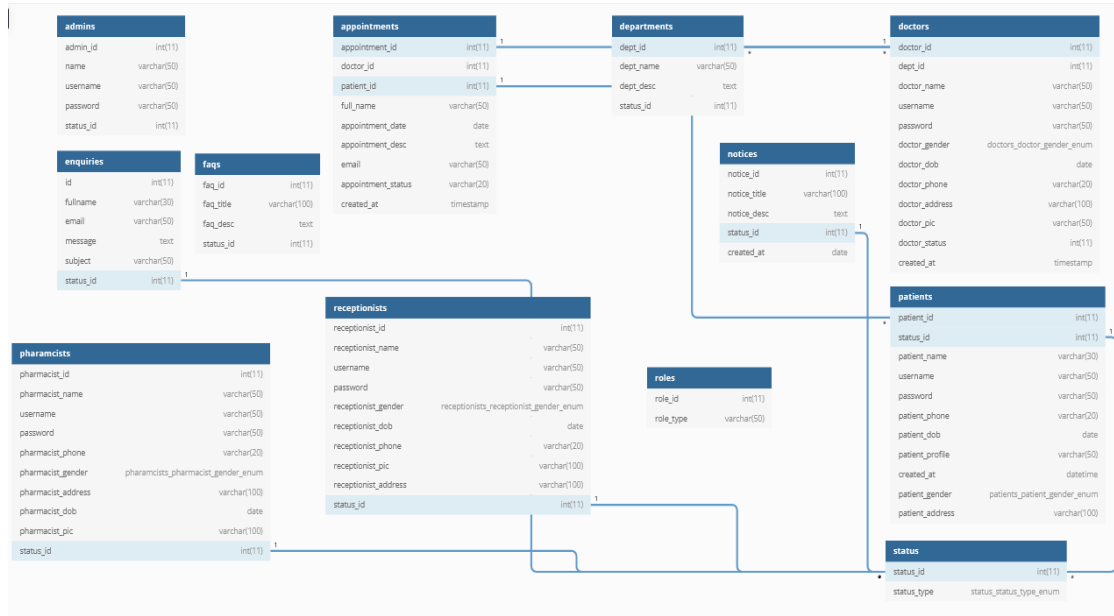


Figure 3-5: Entity Relationship Diagram

3.5 SYSTEM ARCHITECTURE

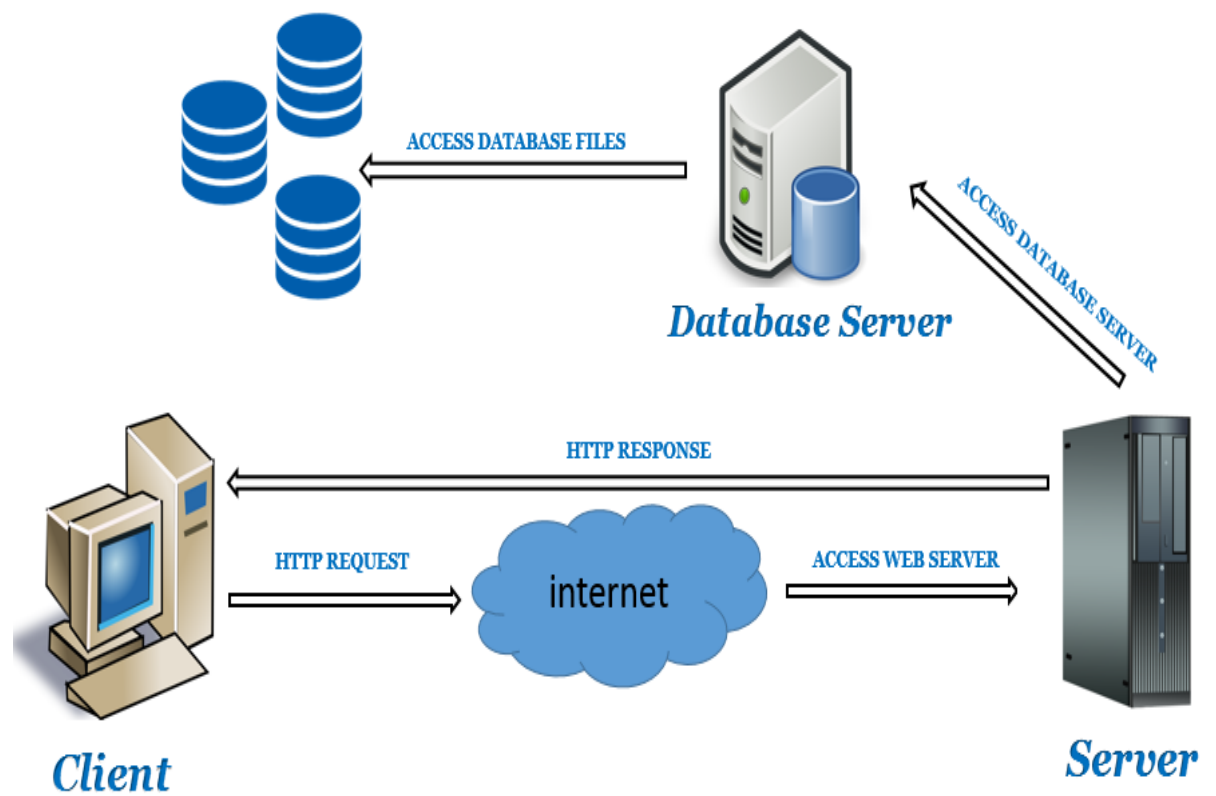


Figure 3-6: System Architecture

Chapter No. 4 **TOOLS & TECHNOLOGIES**

4.1 HTML/CSS

HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user.

HTML defines the structure and layout of a Web document by using a variety of tags and attributes.

HTML language, called tags are words surrounded by brackets. HTML tags are written as pairs, there must be a beginning tag and an ending tag in order to make the code display correctly. The first tag designates how the following text will be grouped or displayed, and the closing tag (with a backslash) designates the end of this group or display.

The correct structure for an HTML document starts with,

`<HTML></HEAD>` (enter here what document is about)

`<BODY>`

All the information you would like to include in your Web page fits in between these tags.

`</BODY>`

`</HTML>`

4.1.1 HTML5

HTML5 is the latest version of Hypertext Markup Language, the code that describes web pages. It is actually three kinds of code: HTML, which provides the structure. Cascading Style Sheets (CSS), which take care of presentation, and JavaScript, which makes things, happen. One of the design goals for HTML5 is to support for multimedia on mobile devices.

4.1.2 Cascading Style Sheets (CSS)

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once. External style sheets are stored in CSS files. CSS gives more control over the appearance of a Web page to the page creator than to the browser designer or the viewer. With CSS, the sources of style definition for a given document element are in this order of precedence:

1. The STYLE attribute on an individual element tag
2. The STYLE element that defines a specific style sheet containing style declarations or a LINK element that links to a separate document containing the STYLE element. In a Web page, the STYLE element is placed between the TITLE statement and the BODY statement. [7]

4.2 PHP

PHP (Personal Home Page/ Hyper Text Pre-Processor) is a programming language that is designed for building a variety of web applications that run on the Windows operating system and as well as Linux. Php is simple, powerful, type-safe, and object-oriented. The many innovations in php enable rapid web application development while retaining the expressiveness and elegance of C-style languages.

Php is server side scripting language for web development but also used as a general-purpose programming language use for enhance the web pages. In HTML and PHP, code can easily be embedded. PHP is compatible with various platforms like windows, Mac, OS X etc.

4.2.1 USAGE OF PHP SCRIPT

Three main areas where PHP scripts are used:

- Server-side scripting
- Command line scripting
- Writing desktop applications

4.2.2 ADVANTAGES OF PHP

- Open source
- Simple and very easy to learn.
- Support for both structural programming and Object Oriented Programming.
- Powerful library support
- Built-in database connection modules
- PHP also has support services using protocols such as LDAP, IMAP, SNMP, NNTP, POP2, HTTP, COM (on Windows)
- Easy deployment and cost effective hosting. [8]

4.2.3 APACHE SERVER

Apache is the most widely used web server software. Developed and maintained by Apache Software Foundation, Apache is an open source software available free. It runs on 67% of all web servers in the world. It is fast, reliable, and secure. It can be highly customized to meet the needs of many different environments by using extensions and modules.

- **APACHE VERSION 3.2.1**

The Apache Software Foundation and The Apache HTTP Server Project are pleased to announce the release of version 3.2.1 of the Apache HTTP Server (“Apache”).

This version of Apache is principally a bug and security fix release. [9]

4.3 JAVA SCRIPT

JavaScript is a programming language used to make web pages interactive. It runs on your visitor's computer and doesn't require constant downloads from your website. JavaScript is a cross-platform, object-oriented scripting language. JavaScript contains a standard library of objects, such as Array, Date, and Math, and a core set of language elements such as operators, control structures, and statements.

- Client-side JavaScript extends the core language by supplying objects to control a browser and it is Document Object Model (DOM).
- Server-side JavaScript extends the core language by supplying objects relevant to running JavaScript on a server.

JavaScript is used in Web site development to do such things as:

- Automatically change a formatted date on a Web page
- Cause a linked-to page to appear in a popup window
- Cause text or a graphic image to change during a mouse rollover [10]

4.4 BOOTSTRAP

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web. Bootstrap is an open-source JavaScript framework. It is a combination of HTML, CSS, and JavaScript code designed to help build user interface components. Bootstrap was also programmed to support both HTML5 and CSS3.

Bootstrap is a free collection of tools for creating a websites and web applications.

It contains HTML and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions.

Bootstrap can be boiled down to three main files:

- bootstrap.css – a CSS framework
- bootstrap.js – a JavaScript/Query framework
- glyph icons – a font (an icon font set)

4.4.1 BOOTSTRAP V3.3.5

Use the component and classes of bootstrap.

- **BOOTSTRAP COMPONENTS**

Components built to provide buttons, dropdowns, input groups, navigation, alerts, and much more. [9]

- **BOOTSTRAP CLASSES**

- i. **.container**

Sets fixed width to an element (which changes depending on a screen size to other fixed values, so it's still responsive) on all screen sizes except xs - on xs, the width is calculated automatically (this behavior can be changed).

- ii. **.container-fluid**

Sets 100% width, margin-left and margin-right: auto, padding-left and padding-right: 15px.

- iii. **.row**

Creates horizontal groups of columns (which usually have width classes, see below).

4.4.2 BOOTSTRAP FORM'S CLASSES

- i. **.form-group**
 - ii. **.form-control**
 - iii. **.form-control-feedback**
 - iv. **.form-control-static**
 - v. **.glyph icon**

4.4.3 REASONS TO CHOOSE BOOTSTRAP FRAMEWORK

Some Reasons for programmers preferred Bootstrap Framework.

1. Easy to get started
2. Great grid system
3. Base styling for most HTML elements (Typography, Code, Tables, Forms, Buttons, Images, Icons)
4. Extensive list of components
5. Bundled JavaScript plugins. [12]

4.5 MYSQL

MySQL is a combination of "My", the name of co-founder Michael Widenius' daughter, and "SQL", the abbreviation for Structured Query Language. MySQL is a database system used on the web. A MySQL database allows you to create a relational database structure on a web-server somewhere in order to store data or automate procedures. MySQL is an open source relational database management system. It runs as a server and allow the multiple user to create numerous database. [13]

4.6 SUBLIME TEXT EDITOR

Sublime Text is a shareware cross-platform source code editor with a Python application-programming interface. It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

Why we use: we use this tool to edit the code of HTML, CSS and PHP. [15]

4.7 CODEIGNITER

Code ignitor is a PHP framework created by Elli slab on February 28, 2006 and is now a project of the British Columbia Institute of Technology. Code ignitor is built for developer who need an elegant toolkit for web application, which is rich of featured. Code ignitor is based on popular development pattern MVC (Model View Controller). In Code ignitor the controller classes are necessary where as models and views are optional. Code ignitor is noted for its speed when compared to another PHP framework.

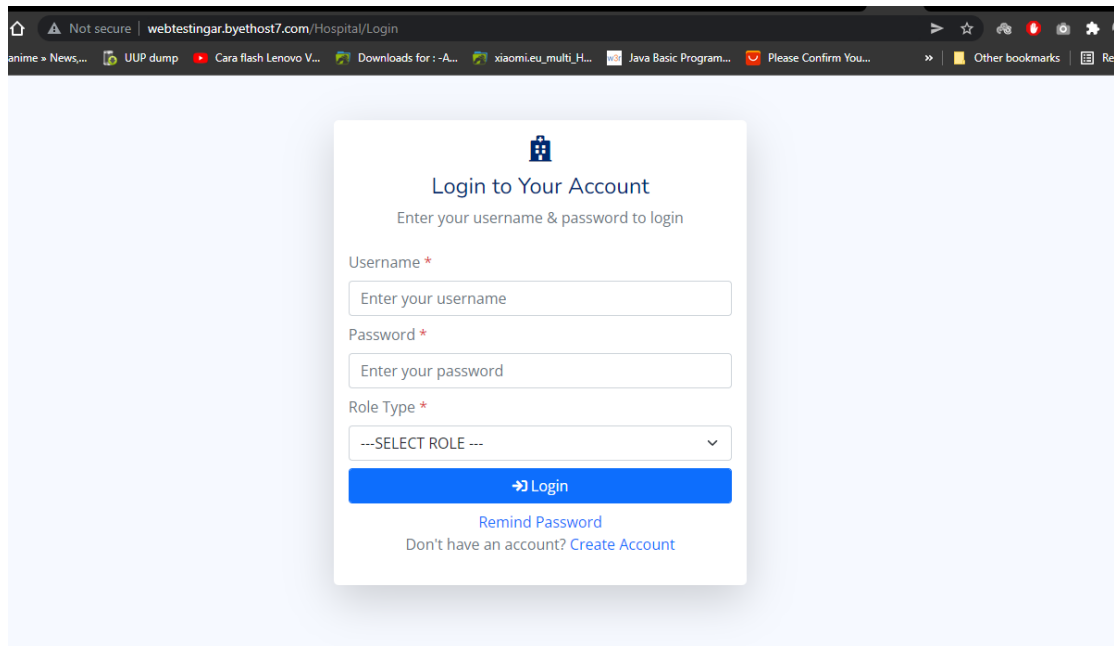
Why we use: we use this framework of PHP to make secure website and efficient.
[14]

Chapter No. 5 **IMPLEMENTATION**

5.1 PROJECT SCREENSHOT

5.1.1 LOGIN OF USERS

Figure 5-1 is the login page of users; users can provide username and password



The screenshot shows a web browser window with the address bar displaying "webtestingar.byethost7.com/Hospital/Login". The page content is a login form titled "Login to Your Account" with the instruction "Enter your username & password to login". The form contains three input fields: "Username *" with a placeholder "Enter your username", "Password *" with a placeholder "Enter your password", and "Role Type *" with a dropdown menu showing "---SELECT ROLE ---". Below these fields is a blue "Login" button with a right-pointing arrow icon. At the bottom of the form, there are two links: "Remind Password" and "Don't have an account? Create Account".

Figure 5-1: Login of Users

5.1.2 ADMIN PANEL DASHBOARD

Figure 5-2 below is the snapshot of admin panel where Admin

- can add doctors/patients
- create and view notices
- manage appointments
- Add and view FAQs
- Manage Receptionist and Pharmacists
- Control all setting related to website

The screenshot displays the Admin Panel Dashboard. On the left is a sidebar menu with the following items: Dashboard, Departments, Doctors, Patients, Appointments, Prescriptions, Receptionists, Pharmacists, Notices, and F.A.Q. The main content area is titled 'Dashboard' and includes three overview cards: 'Patients | Total' with a count of 0, 'Doctors | Total' with a count of 1, and 'Appointments | Total' with a count of 0. Below these is an 'Enquiries' section featuring a table with 5 columns: SR, Full Name, Email, Message, and Action. The table contains 3 entries. A search bar and a dropdown for 'entries per page' (set to 10) are located above the table. The footer of the table indicates 'Showing 1 to 3 of 3 entries'.

SR	Full Name	Email	Message	Action
1	test	test@gmail.com	test message	
2	faqView.php	admin@example.com	asdad	
3	test	adeebqambrani@gmail.com	asdad	

Figure 5-2: Admin Panel

5.1.3 ADMIN CAN ADD APPOINTMENT

In Figure 5-3 below is the appointment module where admin can add appointment of particular patient.

The screenshot shows the 'ADMIN PANEL' interface. On the left is a sidebar menu with options: Dashboard, Departments, Doctors, Patients, Appointments, Prescriptions, Receptionists, Pharmacists, Notices, and F.A.Q. The main content area is titled 'Add Appointment'. It contains four input fields: 'Doctors*' with a dropdown menu showing 'Parvesh Kumar'; 'Patient*' with a dropdown menu showing '--SELECT PATIENT--'; 'Appointment Date*' with a text input showing '01 / 06 / 2022'; and 'Appointment Status*' with a dropdown menu showing '--SELECT APPOINTMENT STATUS--'. A blue 'Create' button is located at the bottom right of the form. At the bottom of the page, there is a copyright notice: '© Copyright University of Sindh. All Rights Reserved'.

Figure 5-3: Admin Add Appointment

5.1.4 ADD DOCTORS

Below is the snapshot of the page where admin can add doctor

The screenshot shows the 'Add Doctor' form within the Admin Panel. The left sidebar contains a menu with options: Dashboard, Departments, Doctors, Patients, Appointments, Prescriptions, Receptionists, Pharmacists, Notices, and F.A.Q. The main content area is titled 'Add Doctor' and contains the following fields:

- Full Name ***: Text input with value 'Parvesh Kumar'.
- Username ***: Text input with value 'parveshjesswani1999@gmail.com'.
- Gender ***: Dropdown menu with value 'Male'.
- Date of Birth ***: Text input with value '03 / 04 / 1999'.
- Phone No ***: Text input with value '03331237579'.
- Address ***: Text input with value 'Isra Village'.
- Department ***: Dropdown menu with value 'Cardiology'.
- Password ***: Text input with masked characters '.....'.
- Profile Picture ***: Image upload field showing a file named 'WhatsApp Image 2022-01-09 at 5.40.37 PM.jpeg'.
- Status ***: Dropdown menu with value 'Active'.

A blue 'Create' button is located at the bottom right of the form.

Figure 5-4: Add Doctor

5.1.5 VIEW DOCTORS

This is a page where all doctors shown in admin panel

ADMIN PANEL

Dashboard

Departments

Doctors

Patients

Appointments

Prescriptions

Receptionists

Pharmacists




Notices

F.A.Q

View Doctors

10 entries per page

Search...

SR	Name	Username	Department	Status	Action
1	Parvesh Kumar	parveshjesswani1999@gmail.com	Cardiology	Active	Inactive   

Showing 1 to 1 of 1 entries

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Figure 5-5: View Doctors

5.1.6 VIEW DEPARTMENTS

Below this is the department module where admin can add departments of clinic or hospital.

ADMIN PANEL

SALMAN MEMON

Dashboard

Departments

Doctors

Patients

Appointments

Prescriptions

Receptionists

Pharmacists

Notices

F.A.Q

View Departments

10 entries per page

Search...

SR	Department Name	Department Description	Status	Action
1	Hepatology	This is the department of hepatology	Inactive	Active ✕
2	Pathology	This is the department of pathology	Active	Inactive ✕
3	Cardiology	This is the cardiology department	Active	Inactive ✕
4	Department one	update This is the deparment	Active	Inactive ✕

Showing 1 to 4 of 4 entries

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Figure 5-6: View Departments

5.1.7 ADD PATIENT

Here admin can add patient

Patients

Patients Name *

Enter Patients Name

Patients DOB *

mm/dd/yyyy

Patients Status *

---SELECT STATUS---

Username *

Enter Username

Patients Gender *

---SELECT Gender---

Password *

Enter Password

Patients Phone *

Enter Patients Phone

Patients Address *

Enter Patients Address

Patients Pic *

Choose File

No file chosen

Create

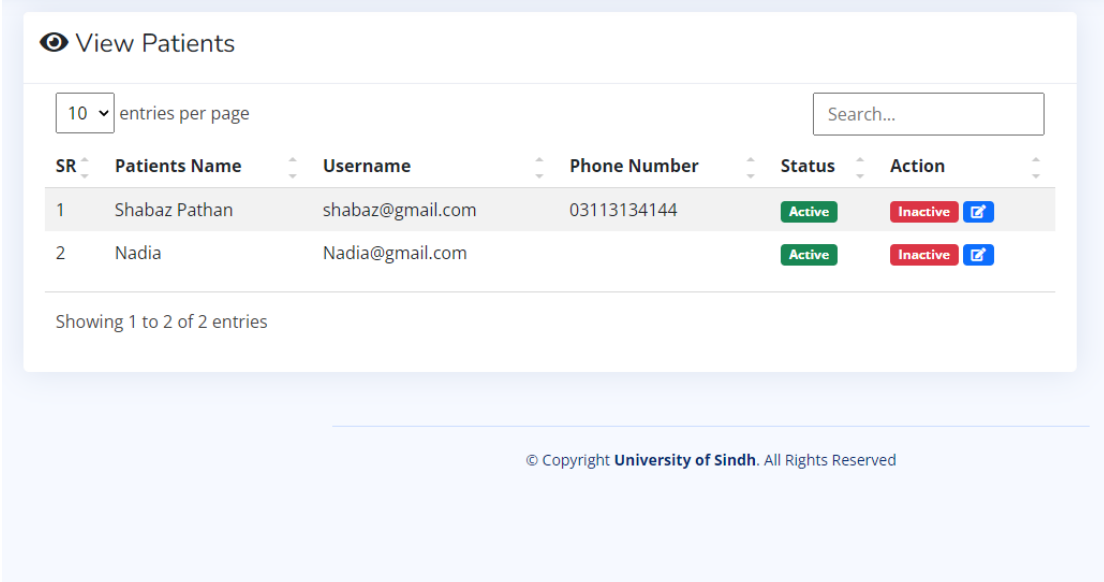
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Figure 5-7: Add Patient

5.1.8 VIEW PATIENTS

Below is the snapshot where admin can

- View the patients
- Delete and Edit the Patients



The screenshot displays a web interface titled "View Patients". At the top left, there is a dropdown menu set to "10" with the text "entries per page". To the right is a search bar labeled "Search...". Below these is a table with the following columns: "SR", "Patients Name", "Username", "Phone Number", "Status", and "Action". The table contains two entries. The first entry has SR "1", Name "Shabaz Pathan", Username "shabaz@gmail.com", Phone Number "03113134144", Status "Active" (in a green box), and Action buttons for "Inactive" (in a red box) and "Edit" (in a blue box). The second entry has SR "2", Name "Nadia", Username "Nadia@gmail.com", Status "Active" (in a green box), and Action buttons for "Inactive" (in a red box) and "Edit" (in a blue box). Below the table, it says "Showing 1 to 2 of 2 entries". At the bottom of the interface, there is a copyright notice: "© Copyright University of Sindh. All Rights Reserved".

SR	Patients Name	Username	Phone Number	Status	Action
1	Shabaz Pathan	shabaz@gmail.com	03113134144	Active	Inactive Edit
2	Nadia	Nadia@gmail.com		Active	Inactive Edit

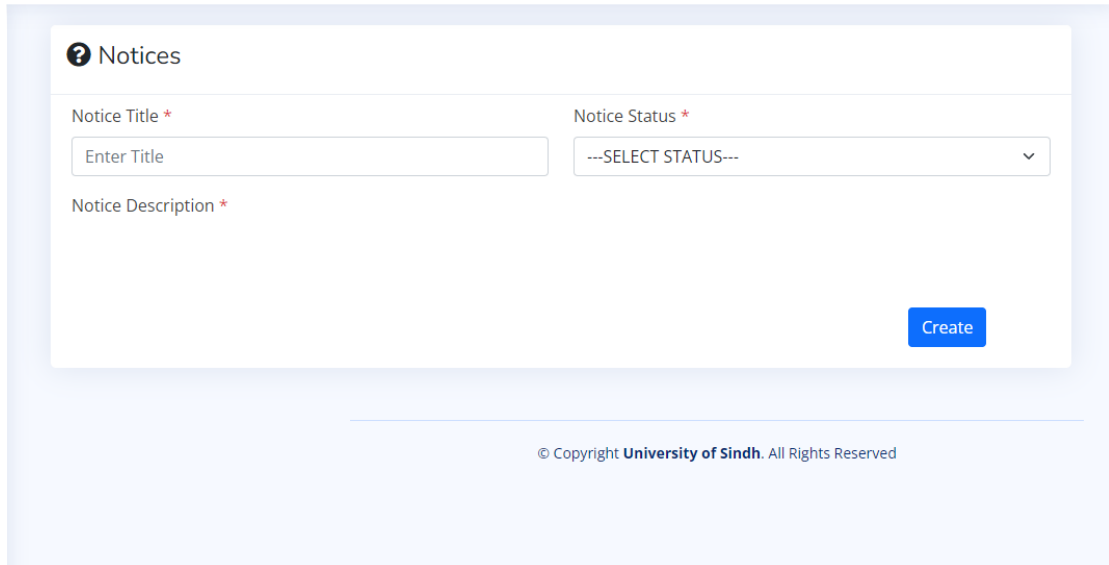
Showing 1 to 2 of 2 entries

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Figure 5-8: View Patients

5.1.9 ADD NOTICES

Here admin can add and view notices for all users



The screenshot shows a web form titled "Notices" with a question mark icon. The form contains three fields: "Notice Title *" (a text input with placeholder "Enter Title"), "Notice Status *" (a dropdown menu with "--SELECT STATUS--" and a downward arrow), and "Notice Description *" (a large text area). A blue "Create" button is located at the bottom right of the form. Below the form, there is a horizontal line and a copyright notice: "© Copyright University of Sindh. All Rights Reserved".

Figure 5-9: Add Notices

5.1.10 ADD RECEPTIONIST

Below is the snapshot where admin can

- Add and View Receptionists

The screenshot displays the 'ADMIN PANEL' interface. On the left is a sidebar menu with options: Dashboard, Departments, Doctors, Patients, Appointments, Prescriptions, Receptionists, Pharmacists, Notices, and F.A.Q. The main content area is titled 'Receptionists' and contains a form for adding a new receptionist. The form fields are as follows:

Receptionist Name *	Username *	Receptionist Phone *
Saif ur Rehman	saifvistro123	03153357121

Receptionist DOB *	Receptionist Gender *	Receptionist Address *
02/10/1996	Male	Bhittai Town

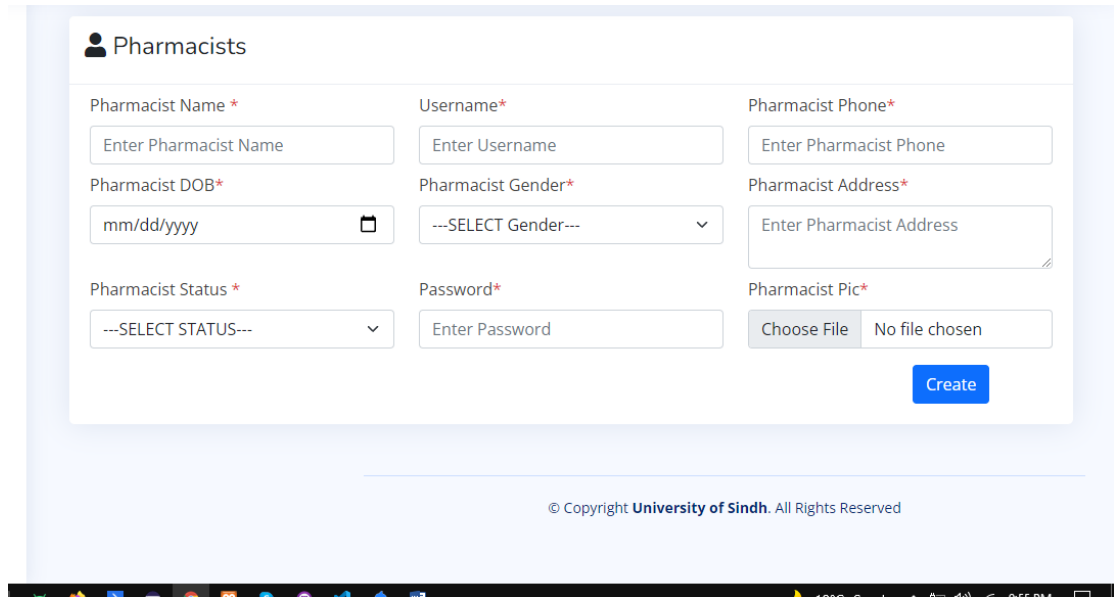
Receptionist Status *	Password *	Receptionist Pic *
Active	saif121	Browse... WhatsApp Image49:38 PM.jpeg

A 'Create' button is located at the bottom right of the form. The footer of the page reads: '© Copyright University of Sindh. All Rights Reserved'.

Figure 5-10: Add Receptionist

5.1.11 ADD PHARMACISTS

Below is the snapshot of page where admin can add pharmacists for laboratory tests



The screenshot shows a web application interface for adding pharmacists. The form is titled "Pharmacists" with a user icon. It contains several input fields and a "Create" button. The fields are arranged in a grid-like structure. The "Pharmacist Name" field is required and has a placeholder "Enter Pharmacist Name". The "Username" field is also required and has a placeholder "Enter Username". The "Pharmacist Phone" field is required and has a placeholder "Enter Pharmacist Phone". The "Pharmacist DOB" field is required and has a placeholder "mm/dd/yyyy" with a calendar icon. The "Pharmacist Gender" field is required and has a dropdown menu with the option "---SELECT Gender---". The "Pharmacist Address" field is required and has a placeholder "Enter Pharmacist Address". The "Pharmacist Status" field is required and has a dropdown menu with the option "---SELECT STATUS---". The "Password" field is required and has a placeholder "Enter Password". The "Pharmacist Pic" field is required and has a "Choose File" button and a "No file chosen" label. A blue "Create" button is located at the bottom right of the form. Below the form, there is a copyright notice: "© Copyright University of Sindh. All Rights Reserved". The bottom of the screenshot shows a Windows taskbar with various icons and a system tray showing the date and time as 9:55 PM.

Pharmacist Name *	Username*	Pharmacist Phone*
<input type="text" value="Enter Pharmacist Name"/>	<input type="text" value="Enter Username"/>	<input type="text" value="Enter Pharmacist Phone"/>
Pharmacist DOB*	Pharmacist Gender*	Pharmacist Address*
<input data-cs="2" data-kind="parent" type="text" value="mm/dd/yyyy"/> <input type="calendar"/>	<input type="text" value="---SELECT Gender---"/>	<input type="text" value="Enter Pharmacist Address"/>
Pharmacist Status *	Password*	Pharmacist Pic*
<input type="text" value="---SELECT STATUS---"/>	<input type="text" value="Enter Password"/>	<input type="button" value="Choose File"/> <input type="text" value="No file chosen"/>

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Figure 5-11 Add Pharmacists

5.1.12 DOCTOR PANEL DASHBOARD

Below is the snapshot of Doctor Panel Dashboard



Figure 5-12: Doctor Panel

5.1.13 PATIENT PANEL DASHBOARD

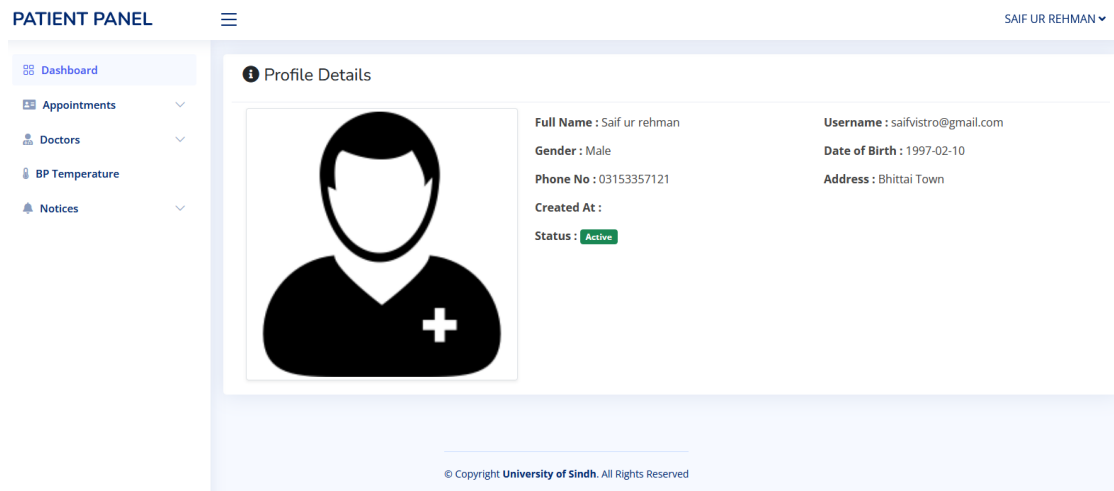


Figure 5-13: Patient Panel

5.1.14 PATIENT HOW TO CHECK BP

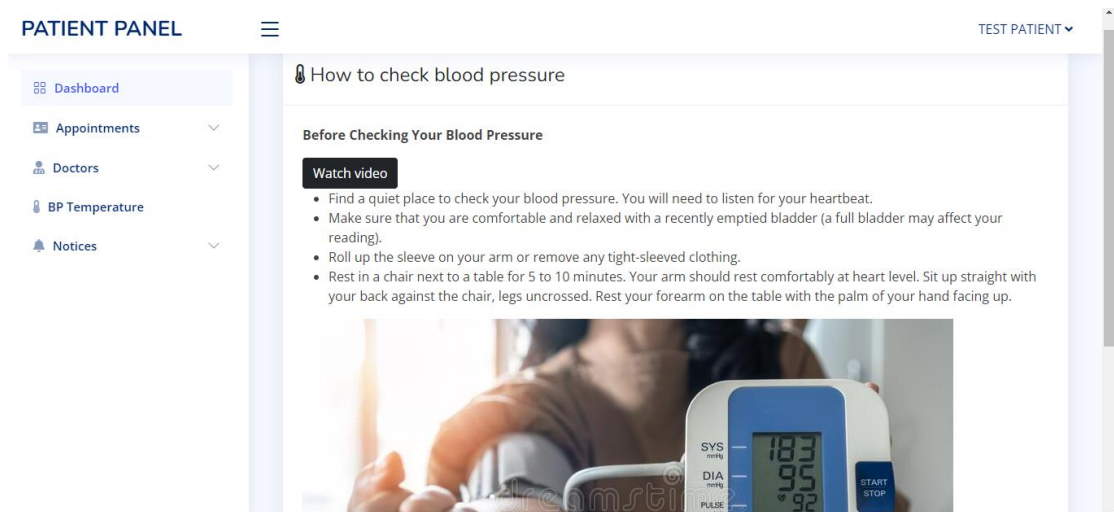


Figure 5-14: Patient How to check BP

Chapter No. 6 **RESULT AND CONCLUSION**

6.1 RESULT

It can be said that the required goal has been achieved. Goal was to build a website that can work fully dynamic and perform all the operations of the institute. Where various notices, timetable, faculty members, events much soon could carried out respectively, Using different technologies for this purpose, like *content* management, system for Institute of Information & Communication Technology has been designed and implemented. This can work on single machine and as well as on local Area Network. Because of this, users have given chance to get information from one place instead of going different sites for same types of information.

6.2 CONCLUSION

To solve the problem of health care system or online consultation platform we provide an outstanding system for the hospital and especially for the patient who face difficulty to find best doctor so in our platform patient can easily find a doctor and take appointment from him/her and treated by the doctor easily without facing any difficulty.

Our exploratory search revealed that organizations can be understood and analyzed based on underlying decisional processes. With this in mind, we performed a more thorough search related to decision-making and healthcare. In our search, we discovered that a comprehensive framework for decision making in healthcare did not exist. We created one based on our literature findings. Based on the framework from literature we validated our research and made additional discoveries about critical roles in decision-making.

6.3 FUTURE WORK

Future research could take many directions with regard to developing a comprehensive decision-making framework for healthcare. Future research could conduct interviews with all the key decision makers: nurses, doctors, and all manager levels, and have a greater sample size.

Moreover, we will implement video and chatting in our system so doctor and patient can easily treated more over it will be bug free and suitable system for people.

While these bits of knowledge are significant, we should likewise comprehend the complicated and between related difficulties that groups will confront—at both neighborhood and public level—when endeavoring to install the innovation inside medical care associations. Our interesting staggered scientific methodology will, we trust, enlighten the intricacy of the distant video interview and the framework in which it is settled (counting authoritative, lawful, administrative and strategy settings), consequently adding to a fair, hypothesis based evaluation of when, how and in what conditions this help model may be presented.

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