Online Hospital Appointment

A PROJECT SUBMITTED TO

Sarvodaya College of Computer Science

RAJKOT

(Affiliated to Saurashtra University)

Submitted in partial fulfillment of the requirements for the degree of

"Bachelor of Computer Application"

Sem-6

(Year 2023-2024)

Submitted By:-

1:- Ramani Sweta

Guided By:-

Prof. Radhika Pithadiya

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PREFACE

Computer Technology has proved beneficial in many ways, from visible to invisible, spectacular to routine, in every field computer system occupy special place. Computer makes possible smooth and efficient operation.

In this “ONLINE HOSPITAL APPOINTMENT” Project I have provide a convenient platform for patients to schedule appointments with healthcare providers and manage their medical records.

This website offers a user-friendly interface, allowing patients to easily schedule appointments, view the list of available medical departments, contact the Hospital Management, and access important health information.

DECLARATION

I am a student of B.C.A sem-6, hereby declare that the project work presented in this folio is my contribution and have been carried out under supervision of all professors of B.C.A Department of Sarvodaya College Of Computer Science - Rajkot.

The main objective of this training undertaken is to get specialized knowledge in a particular specialized field, which further sharpen the skill and also include that it is a part of our studies undergoing.

This work has not been previously submitted to any other institute/university for any of the purposes.

Place: Rajkot
Date: 02/03/2024

Thank You,
Ramani Sweta

ACKNOWLEDGMENT

I am a student of B.C.A, studying in the Sarvodaya College Of Computer Science - Rajkot, thank all the guidance team members who have landed their support in shaping of the website.

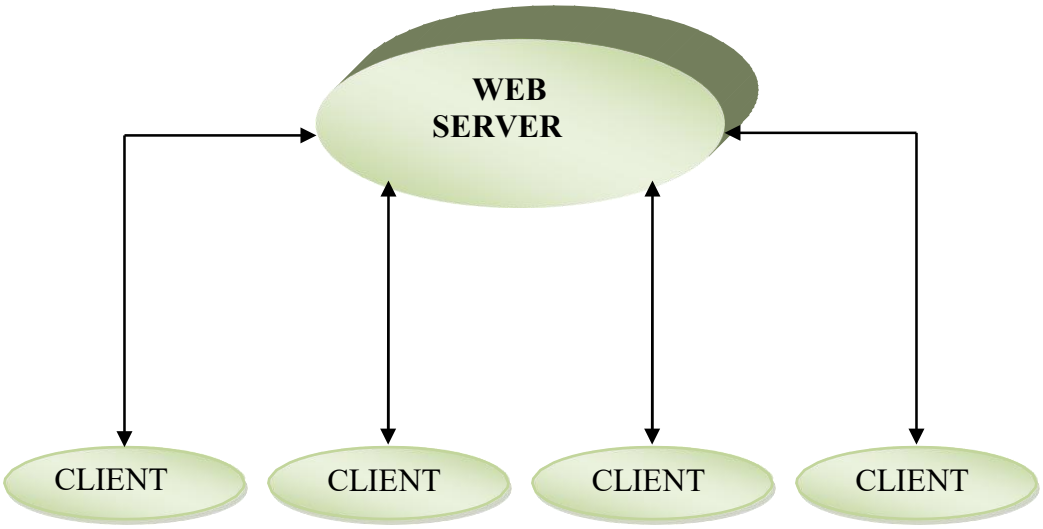
I thank **Prof. Radhika Pithadiya** before giving me full guidance and cooperation in understanding the website. I also thank her for her unconditional help in making of this project.

I have great deal of gratitude towards our Head Of Department who encourage us in taking up this activity. I thank all faculties and administrative staff of the institute in enhancing their cooperation.

PROJECT PROFILES

Developed At	:~	Sarvodaya College Of Computer Sciense - Rajkot
Developed By	:~	Ramani Sweta
Main Pages	:~	Home page (Home.aspx)
Operating System	:~	Microsoft Windows XP, 95, 98, 2000, Professional,7,8,10.
Web Server	:~	Sql Server
Web Browser	:~	Internet Explorer 6.0, Mozila Firefox, Google Chrome, Opera.
Editor	:~	Visual studio 2015
Hardware Requirement For Internet Access	:~	486 D*2 or Higher Processor. Free Disk Space 100 MB. Color Monitor & Multimedia Kit. One Free comport For Modem. Modem 56 Kbps.
Guided By	:~	**Prof. Radhika Pithadiya**
Submission At	:~	B.C.A. Department of Sarvodaya College Of Computer Science

Web Architecture



A **Web Server** is a computer that runs the web server software**,** which responds to page requests**.** It is also called **host.** The two main types of web server are **HTTP Server** that follows the HTTP protocol**,** and FTP servers that follow the FTP protocol.

A **Web Client** sends requests for data to a web server**.** When the web server processes the request and sends the requested page to the client (remember the browser is used to view these pages and send requests**.**)

Web Pages

The big attraction with active server pages, of course is the ability to include script directly in the file that's referenced by the browser, and that creates dynamic pages.

It's important to recognize how ASP differs from existing methods such as refining a latest page, executing CGI and ISAPI applications or running traditional scripts.

There are two types of web pages that are as under:

1. Static Web Pages
2. Dynamic Web Pages

➢ Static Web Pages:

When the user enters URL into their browser's address box, or clicks a hyperlink on another page, a request for that page is sent to the server. This is just a file on the server's hard disk, and the web server software starts by loading it into memory. If it's a normal static HTML page, the server adds a few transmission protocol requirements such as the document type, encodes it so that it can be transmitted over HTTP, and sends the whole thing to the browser.

The user sees the contents as rendered HTML page, but the same source is the same is the file that is stored on the server's disk.

➢ Dynamic Web Pages:

To create a dynamic web page using traditional methods, the server has to do more than just package up and send a file from disk. If the request from the browser is for a CGI or ISAPI application file, the server loads application & executes it. The application itself creates a stream of text HTML code, just like if was sending it to a printer. This is assembled in to a temporary page on the server, packaged up for HTTP transition, and sent to the browser. To the user, it looks just like a normal static page, because it's still just HTML code. However, the actual page is no longer just a copy of the file on the server's disk. It is created on the fly, and the page can be refreshed. Each time the application that creates it is refreshing.

Introduction To HTML

➢ Understanding HTML :

- HTML was originated by Tim Berners-Lee.
- HTML developed a few years ago as a subset of SGM (Standard Generalized Mark-up Language), which is a higher-lever mark-up language that has long been a favorite of the Defense.
- Any HTML document is also valid for SGML.
- HTML is a Hyper Text Markup Language that is used to develop web pages.
- HTML is not a programming language like C, C++ and Java etc.
- It is a cross platform markup language that is design to be flexible enough to display text and other elements like graphical on a variety of views.
- The HTML document Consist of special Tags that are embedded in an ASCII document.
- Web browser like Internet Explorer, Netscape Navigator etc, interprets these Tags.

Introduction to CSS

➢ Definition of CSS :~

CSS stands for Cascading Style Sheet. CSS are a series of instruments that specify how text should appear on web pages .you can use CSS to set styles for text, font, border, list and background.

➢ Advantages of CSS:~

- **CSS save Time**

When most of us first learn html, we get taught to set the font ,face, size, color etc. every time is wasted with CSS, you occurs on a page. that time is wasted with CSS you only occurs have to specify these details once for any elements.

- **Pages Load Faster**

Less code means faster download times.

- **Easy Maintenance**

To change the style of an element, you have only to make an edit on one place.

Introduction To JavaScript

➢ Definition :~

A scripting language for web pages. Scripts written with JavaScript can be embedded into HTML documents. JavaScript is an interpreted language means that scripts executed without preliminary compilation.

➢ Introduction :~

JavaScript is Netscape's cross-platform, object-oriented scripting language. JavaScript is a small, lightweight language; it is not useful as a standalone language, but is designed for easy embedding in other products and applications, such as web browsers. Inside a host environment, JavaScript can be connected to the objects of its environment to provide programmatic control over them.

JavaScript can function as both a procedural and an object oriented language. Core JavaScript contains a core set of objects, such as Array, Date, and Math, and a core set of language elements such as operators, control structures, and statements.

➢ Features of JavaScript:~

JavaScript is becoming increasingly important,and it remains the most broadly available scripting language for Web development. The features of java script are as follow:

- **Higher-order functions:~**

  A high-order function is one that either takes functions as arguments or returns a function. This feature lets java script programmers manipulate functions in ways that the Java language can't.

- **Dynamic typing:**

  By delaying binding, JavaScript can be more concise and flexible.

- **A flexible object model.**

JavaScript's object model uses a relatively uncommon approach to inheritance called prototypes instead of the Java language's more common class-based object model.

➢ Advantages of JavaScript:

- JavaScript gives HTML designers programming tools.
- JavaScript can put dynamic text into HTML pages.
- It can react to events.
- It can read and write HTML elements.
- It can be used to validate data.
- It can be used to create cookies It can be used to detect the visitor's browser.

Introduction to ASP.NET

- ASP.NET makes building real world Web applications dramatically easier

- ASP.NET server controls enable an HTML-like style of declarative programming that let you build great pages with far less code than with classic ASP.NET Displaying data, validating user input, and uploading files are all amazingly easy. Best of all, ASP.NET pages work in all browsers including Netscape, Opera, AOL, and Internet Explorer.

- ASP.NET lets you leverage your current programming language skills. Unlike classic ASP, which supports only interpreted VBScript and JScript, ASP.NET now supports more than 25 .NET languages (built-in support for VB.NET, C#, and JScript.NET), giving you unprecedented flexibility in your choice of language.

- You can harness the full power of ASP.NET using any text editor, even Notepad

- Now you can visually design ASP.NET Web Forms using familiar dragdrop-double click techniques, and enjoy full-fledged code support including statement completion and color-coding. As you known that ASP.net is a part of .net FRAMEWORK

- So, it has all advantages of .net framework like using Base class library, CLR etc.

Advantages of ASP.NET

- Free & Open Source Platform Open-source software tends to be much more affordable than its proprietary counterparts. With hundreds, if not thousands, of developers contributing to and improving open source software, it has become a cost-effective way to develop applications quickly and robustly. ASP.NET is an open-source web framework that makes it easy to build and maintain robust, scalable, and secure applications on any platform or device. Developers can use it to develop all applications, including websites, mobile apps, desktop apps, and services running on cloud platforms like Azure.

- Offers a Multitude of Tools Web applications built using the .Net framework incorporate various tools to perform specific functions and make things even easier for developers. Its versatility and ease of use offer its users many benefits, such as reduced maintenance costs and improved business productivity.

- Smooth Integration of Security-Centric Features While coding a new application, it is essential to ensure that your code is protected against any cyber-attacks. The latest technologies and features can provide you with a highly secure platform where data will be safe and secure, even if someone takes a hard look at it using hacking tools.

- Cross-Platform Support With advancements in the cross-platform .Net framework, it is possible to run your .Net applications on various platforms, including Windows, Linux, macOS, etc. Thanks to Microsoft's .Net framework engineers who have made an effort to make their application compatible with multiple operating systems.

- Develops Highly Scalable Web Apps Web applications built on .NET Framework are easy to scale, as they support component-based architecture and allow quick replacement of any component with better performance or less resource consumption.

- High Community Support The .Net platform has mature community support with thousands of developers helping each other on forums, Stack Overflow, and more. It is one of the notable benefits of ASP.NET, as both programmers & clients can leverage their services. With over two decades of experience, .Net has built up a vast technical support infrastructure that stands ready to provide assistance 24x7, even to novice users who have just begun their foray into app development!

- Project Customization With .NET Framework, you can easily customize any application without modifying its source code using tools like Visual Studio (for example, adding a new web server or changing caching settings). It helps you quickly add new features to your existing applications without requiring developer to create them or modify their source code directly

Introduction to MySQL

➢ What is SQL server?

SQL Server is a relational database management system (RDBMS) developed by Microsoft. It is used for storing, retrieving and managing data in a structured format.

➢ Features :~

- **Query Store:**

This feature allows you to track query performance over time and provides insights into query plan changes. It is available in all editions of SQL Server 2022.

- **Memory-Optimized TempDB Metadata:**

This feature reduces operations and maintenance (O&M) efforts by updating PFS pages using optimistic concurrency control. This reduces the likelihood of lock contention and improves performance. It requires manual activation and is available in all editions of SQL Server 2022.

- **Build-In Query Intelligence:**

This feature allows SQL Server to make better adjustments based on historical data when the optimizer makes decisions. This self-adaptability has reached a new level and is available in all editions of SQL Server 2022.

- **Ledger Database:**

This feature utilizes blockchain technology to create an immutable record of all database transactions. It was introduced in SQL Server 2019 and partially enhanced in SQL Server 2022.

- **Automatic Delayed Start:**

  When setting the Start Mode for a SQL Server service to Automatic in Configuration Manager, the service will start in Automatic (Delayed Start) mode instead, even though the Start Mode shows as Automatic. This feature is available in all editions of SQL Server 2022.

- **Relational Database System:**

  Like almost all other database systems on the market, SQL server is relational database management system.

- **Client/Server Architecture:**

  SQL server is a client/server system. There is a database server (SQL server) and arbitrarily many clients (application programs), who communicate with theserver; that is, they query data, save changes, etc. The clients can run on the samecomputer as the server or on another computer (communication via a local network or the Internet).

➢ Limitation:~

- Maximum database size: 4 GB
- Maximum row size: 8 KB
- Maximum number of columns per table: 1024
- Maximum number of indexes per table: 32
- Maximum number of connections: 256
- No support for SQL Server Agent, Service Broker, or Database Mail
- No support for SQL Server Integration Services, Analysis Services, or Reporting Services

System Requirements

It specified minimum requirement of any project .It contain hardware and software requirements of project. The detail about minimum system requirement in this project as given bellow.

a. Platform (Software):~

- Windows XP
- Windows 98
- Windows any other platform

b. Front End And Back End Tools (Software):~

- **Front End Tools:**
  - HTML
  - ASP.NET
- **Back End:**
  - SQL SERVER

c. Hardware Requirement Specification:~

- 512 MB RAM.
- Visual Studio 2008
- MySQL version 5.0.15 or grater or any version of mariaDB
- WEB server –Apache or nginx

Cost and Benefit Analysis

➢ Feasibility Study:~

Feasibility study provides us information about cost of our project. This work on three-feature technical, economical, operational feasibility study.

- **Technical:**

Technical feasibility check the project is technically possible or not. Technical feasibility can work for the project to be done with current equipment, existing software technology & available personnel. There is need for new technology.

- **Economical:**

Economical Feasibility check, there are sufficient benefits to creating the system. It determines costs and expected of each of the alternative

- **Operational:**

Will the system be used if it is developed & implemented?

Will there be resistance from user that will undermine the possible application the possible application benefits?

Fact Finding Techniques

The analysis doesn't know the working process of the user for which, he is going to develop information system. The analyst use specific methods for collecting data about requirement, which is called fact-finding technique.

It includes the interview, questionnaire and record review. Analyst employees more than one of these techniques to help an accurate and comprehensive investigation. Analyst requires progressive lower level of detail for logical design. Hence it is also true that two project are never same in am information system. It means that analyst must use information-gathering tool.

- **Interview:~**

This is technique is used to collect information from individual or from groups. It is an art better learned from practice than books. It is an individual technique to gather qualitative information, opinions, policies, suggestion, underlying problem etc. **Questionnaires:~**

This technique is used to collect information from large number of people. Questionnaires give to every person and they fill Questionnaires. According to their answer decision are taken.

- **Record Review:~**

A good analyst gets facts from documentation. An existing system can be better understood by examining existing documents, forms and files. This record review can take place at beginning of the system study or letter in the study for comparing actual operation with what the records indicates.

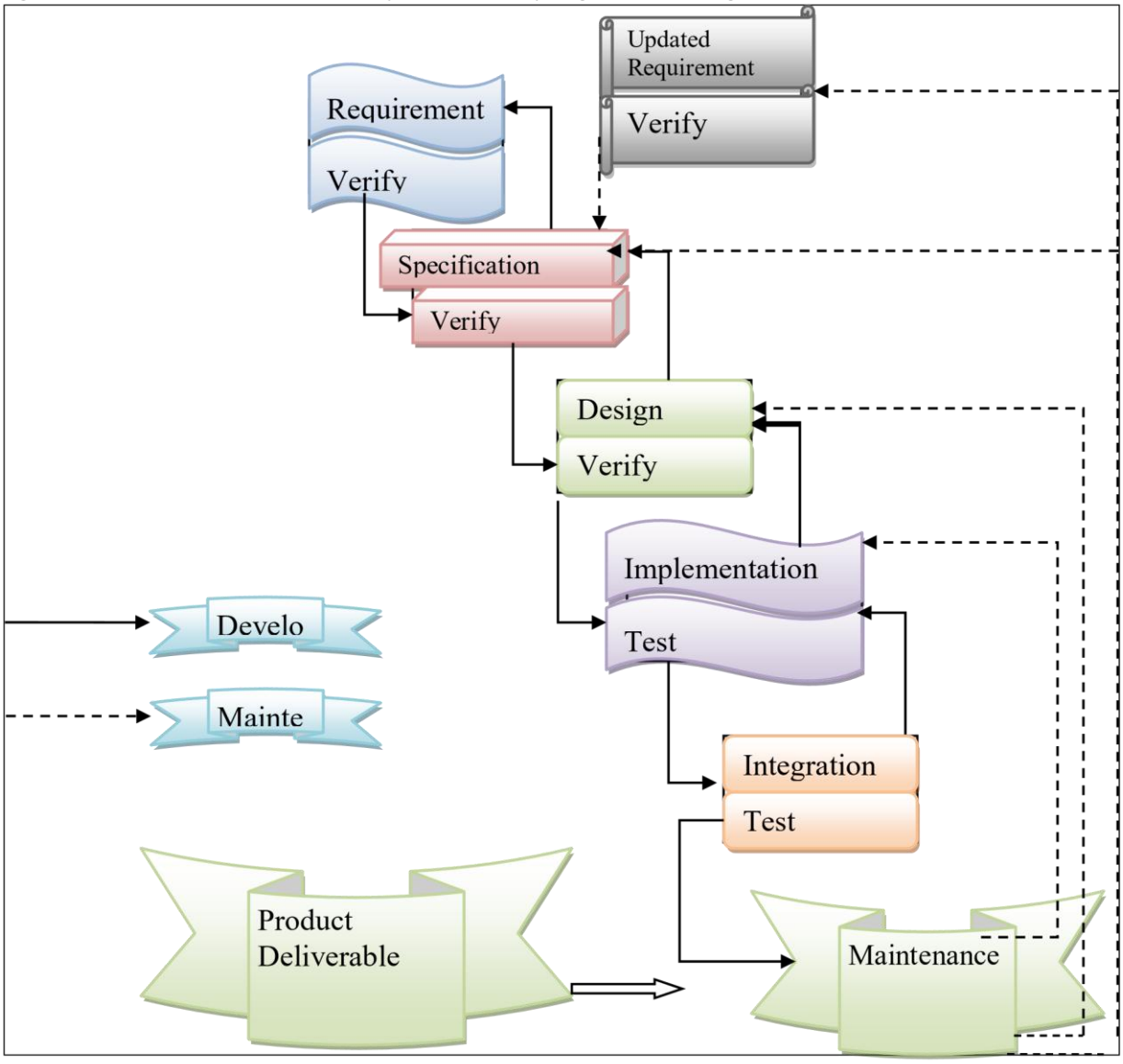
- **Observation:~**

Observation can bring in missed facts, new ways to improve the existing procedures, duplicate work done inadvertently etc. Observation provides close view of working of real system. This task is delicate because people do not like to be observer when they work.

System Development Life Cycle(SDLC)

- Feasibility Study
- Requirements and specification
- Design
- Coding and testing
- Implementation
- Documentation

In the izii this planning and scheduling forward and backward steps are given which indicates the system study again during another work of



project.

This diagram gives information about day scheduling information in our project.

Feasibility Study					
	Require-Ment Specifica-tion				
		Design			
			Description		
				Implemen-tation	
					Documan-Tation
10 Days	10 Days	10 Days	20 Days	10 Days	5 Days

Data Dictionary

Data dictionary is the center responsibility of information about system and Organization. Data dictionary contains a list of tream and their meaning for all data items and data stores of the system.

Show tables:~

~: AdminTab :~

dbo.AdminTab [Design]

Update | Script File: dbo.AdminTab.sql

Name	Data Type	Allow Nulls
Id	int	☐
Uname	varchar(50)	☐
Email	varchar(50)	☐
Mobile	varchar(12)	☐
Pass	varchar(50)	☐
type	varchar(10)	☐
added_by	varchar(50)	☐
dob	varchar(50)	☐
gender	varchar(50)	☐
address	varchar(MAX)	☐
pic	varchar(MAX)	☐
name	varchar(50)	☐
department	varchar(50)	☐

~: AppointTab :~

dbo.AppointTab [Design]

Update | Script File: dbo.AppointTab.sql

Name	Data Type	Allow Nulls
ID	int	☐
Name	varchar(50)	☐
dob	varchar(50)	☐
gender	varchar(50)	☐
department	varchar(50)	☐
date	varchar(50)	☐
mono	varchar(50)	☐
email	varchar(MAX)	☐
booked_by	varchar(50)	☐
status	varchar(20)	☐
		☐

~: departments :~

dbo.departments [Design]

Update | Script File: dbo.departments.sql

Name	Data Type	Allow Nulls
Id	int	☐
department	varchar(50)	☐
status	varchar(50)	☐
		☐

~: FeedbackTab :~

dbo.FeedbackTab [Design]

Update | Script File: dbo.FeedbackTab.sql

Name	Data Type	Allow Nulls
Name	varchar(50)	☐
Email	varchar(50)	☐
MSG	varchar(MAX)	☐
date	varchar(50)	☐
		☐

~: UserTab :~

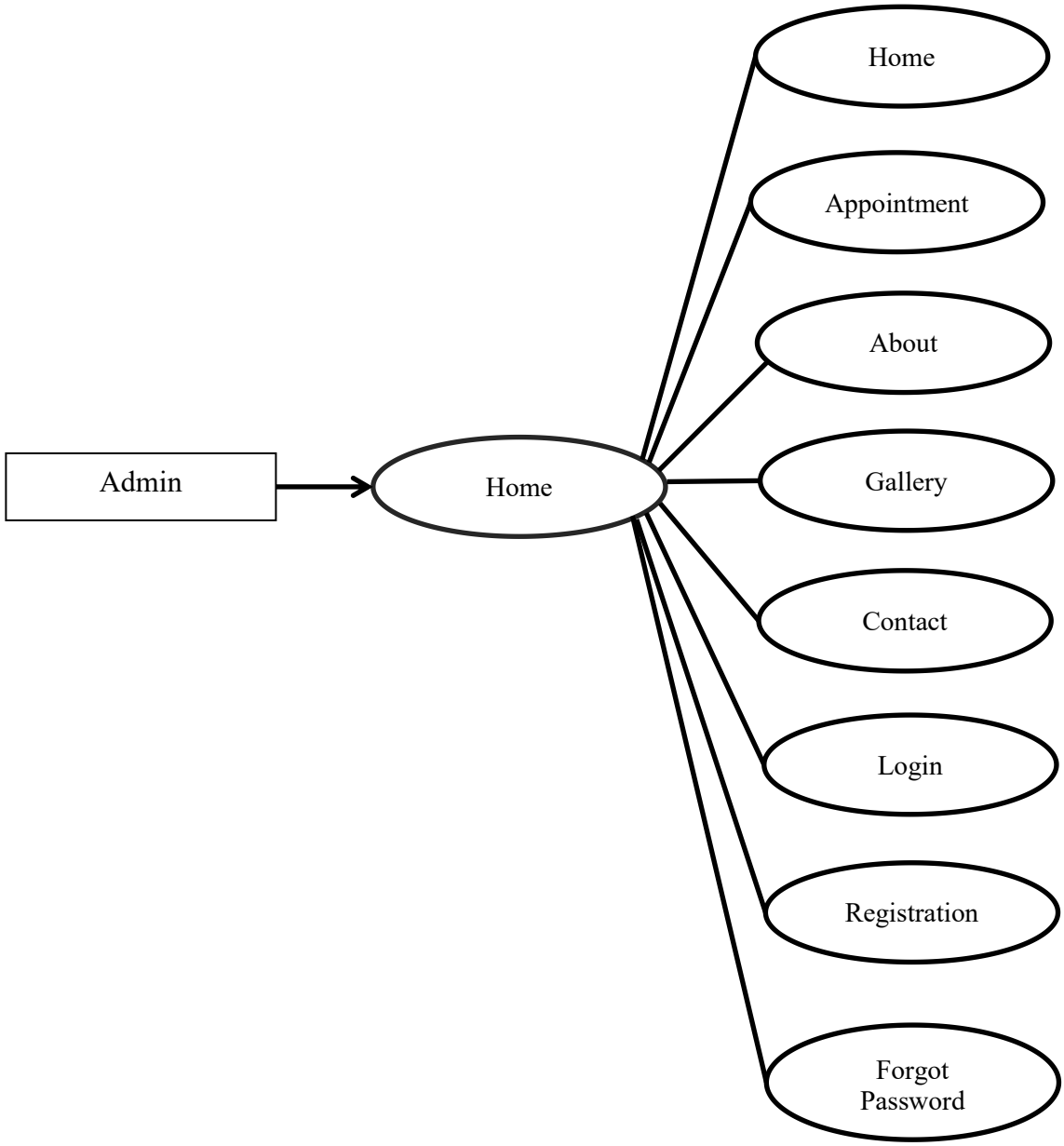
dbo.UserTab [Design]

Update | Script File: dbo.UserTab.sql

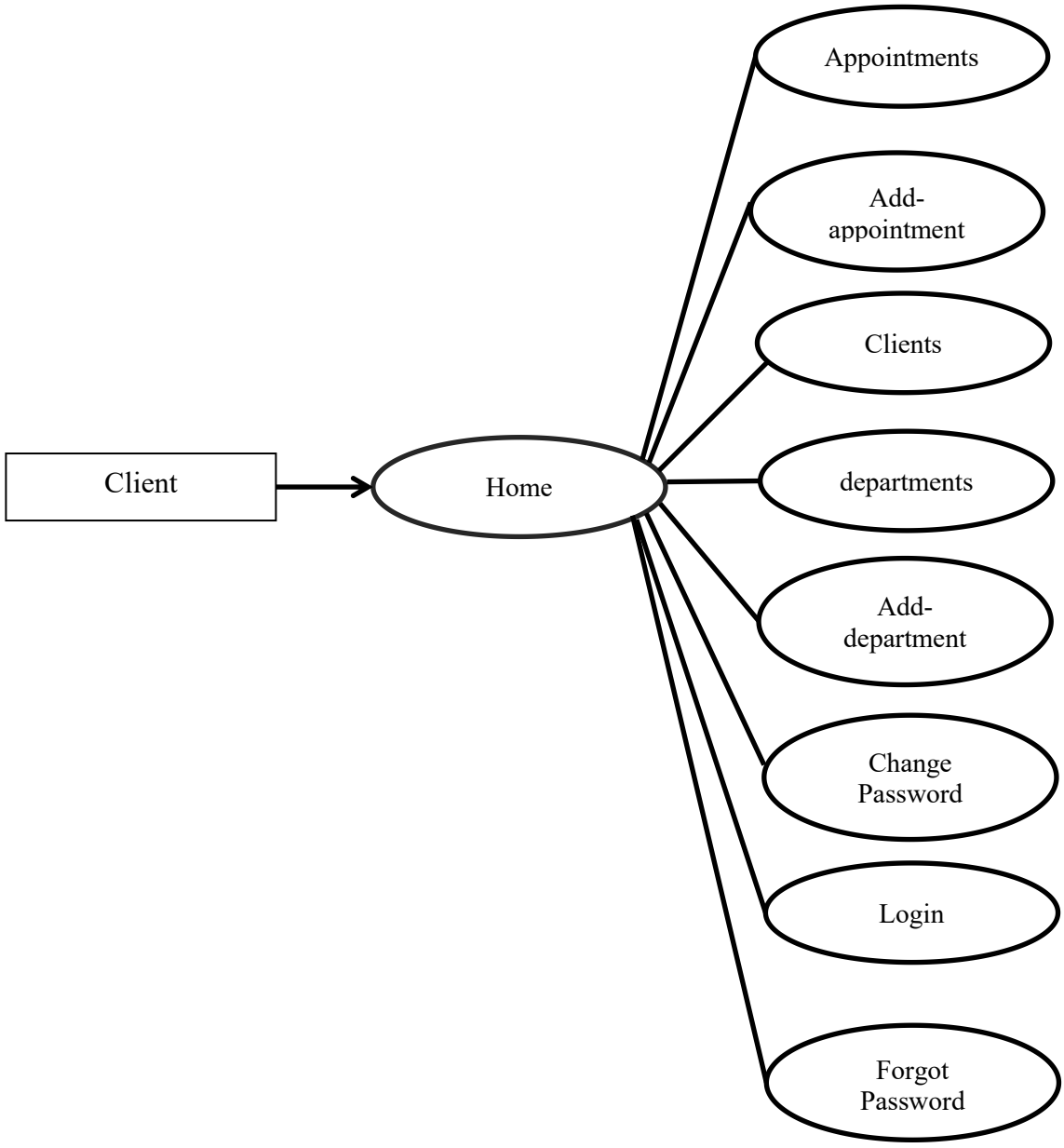
Name	Data Type	Allow Nulls	Default
Id	int	☐	
Uname	varchar(50)	☐	
Email	varchar(50)	☐	
Mobile	varchar(50)	☐	
Pass	varchar(50)	☐	
		☐	

Context Level DFD

1 Level DFD(Admin)



1st Level DFD(Client)

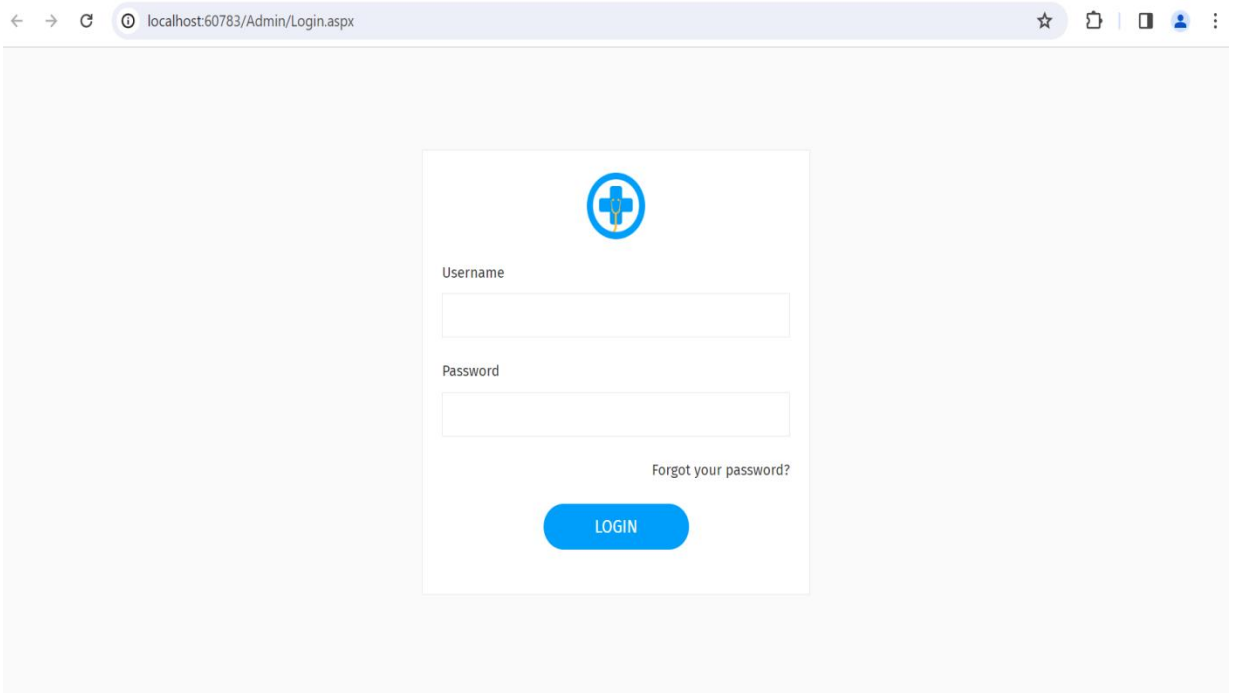


PAGES:

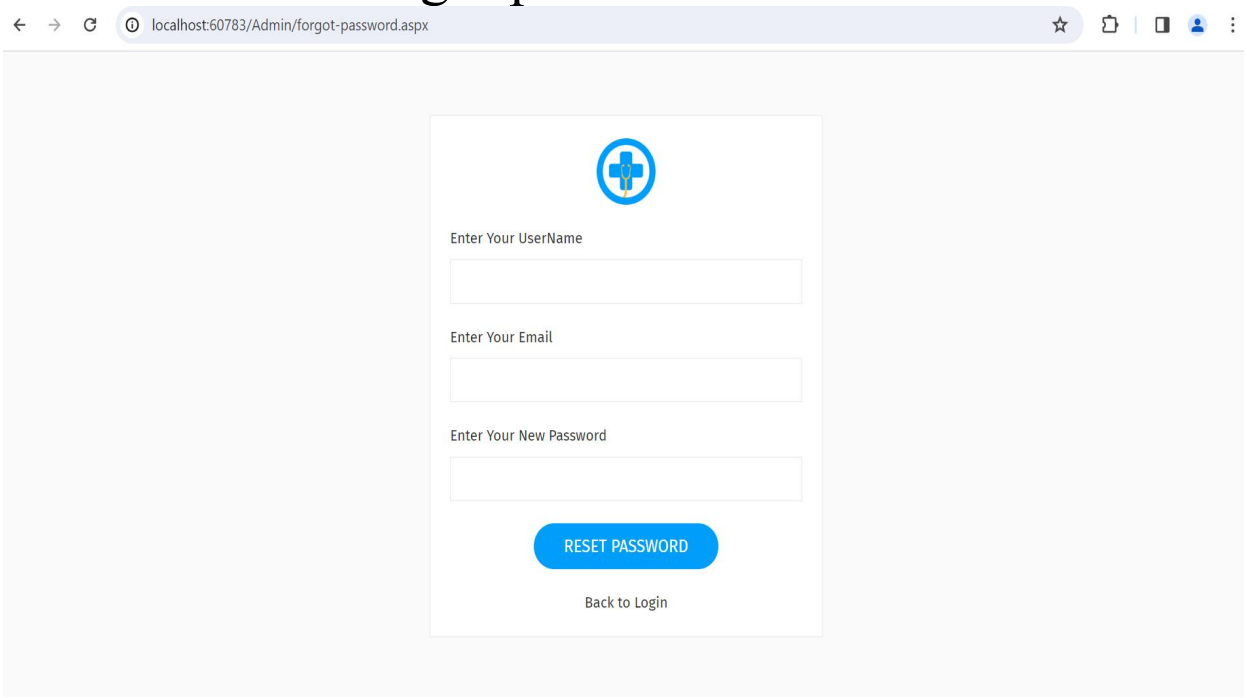
Admin

- **Login**
- **Forgot-password**
- **Masterpage(Admin)**
- **Appointment**
- **Add-appointment**
- **Clients**
- **Departments**
- **Add-department**
- **Change password**
- **Add-admin**

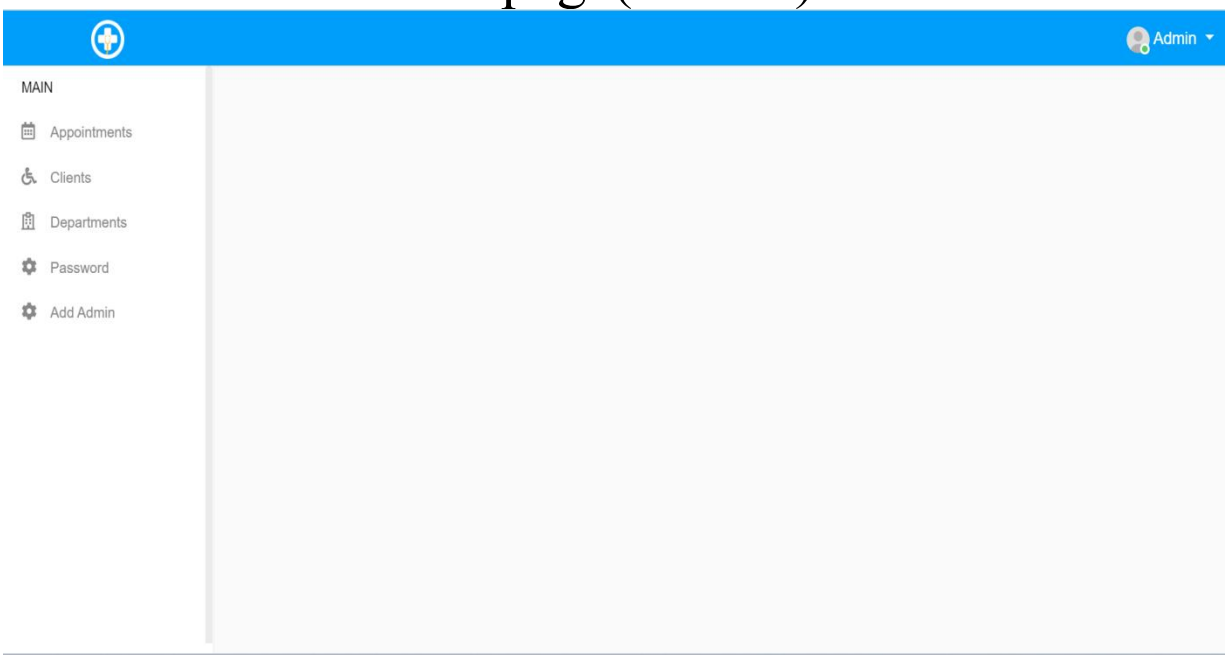
- Login:



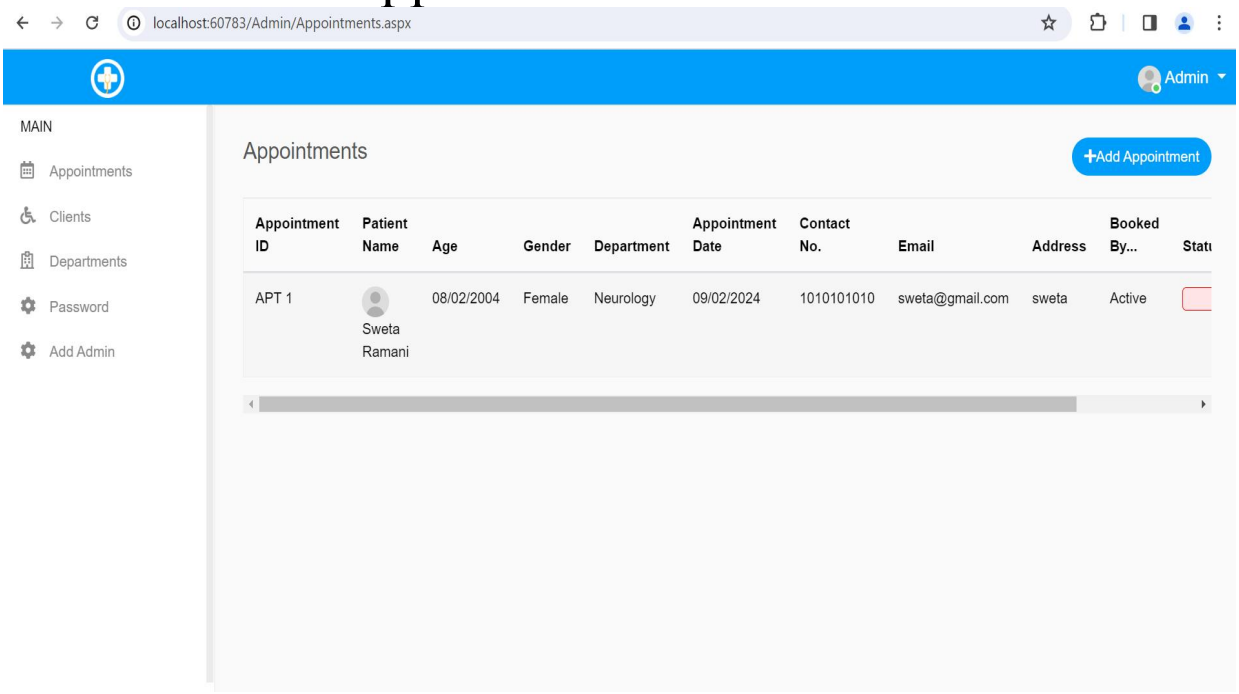
- Forgot password:



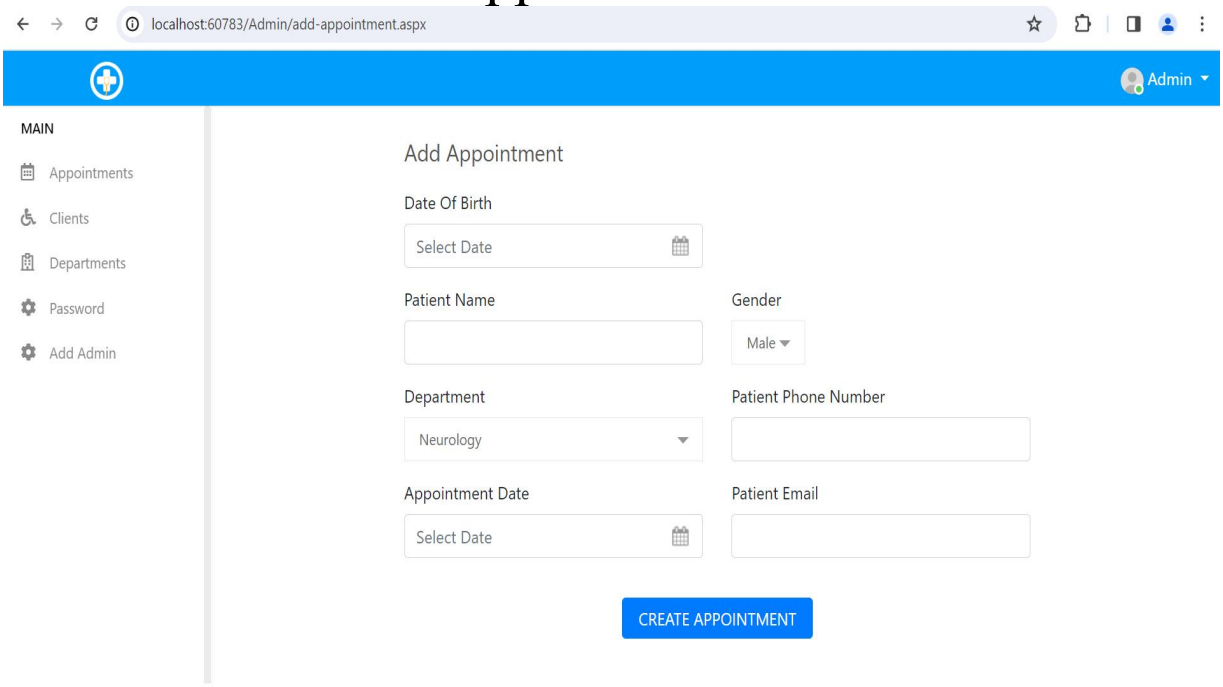
- Masterpage(Admin)



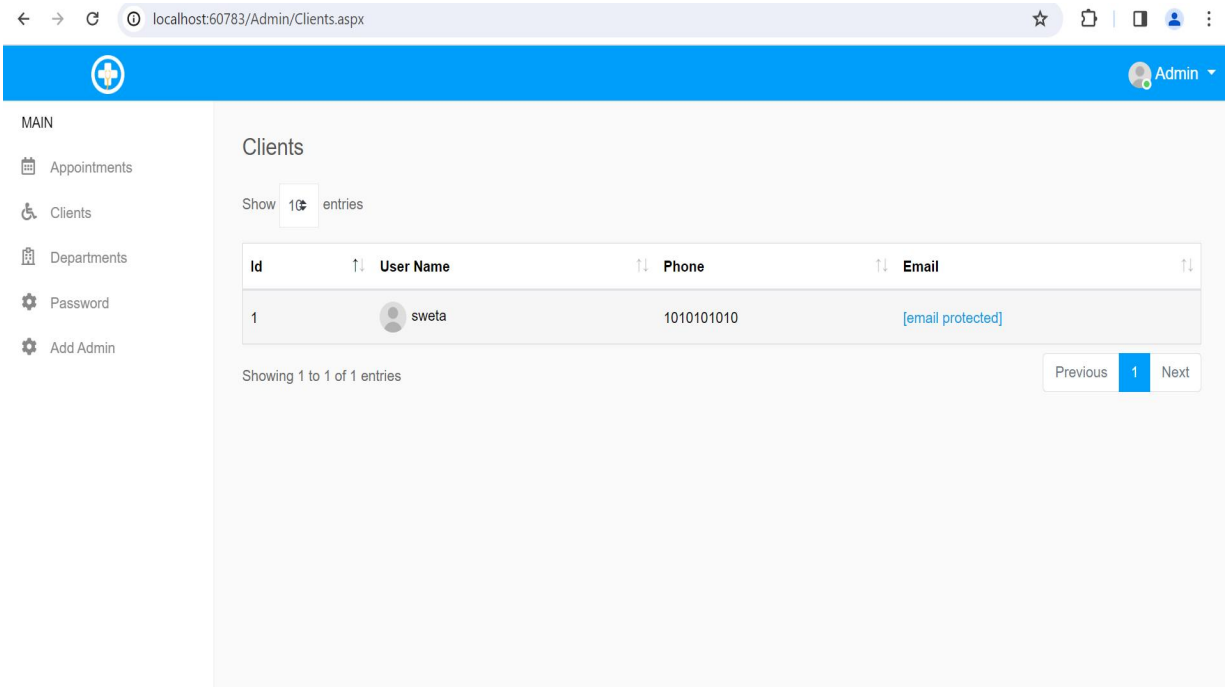
- Appointment



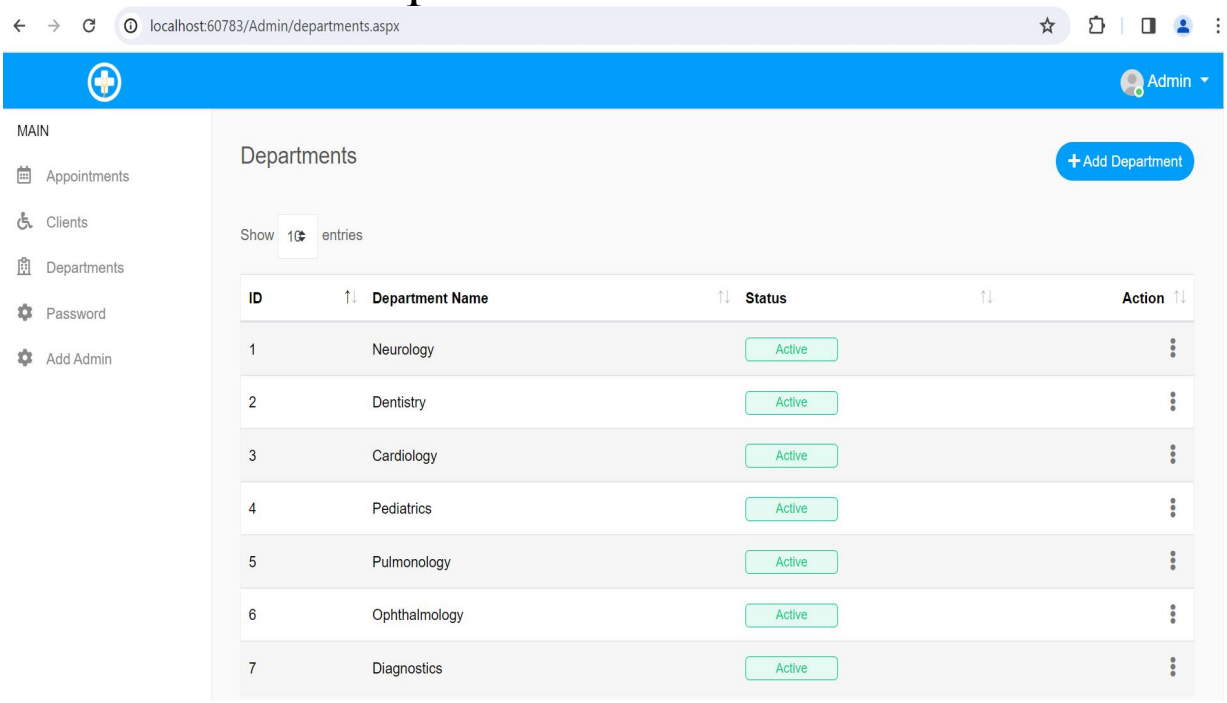
- Add-appointment



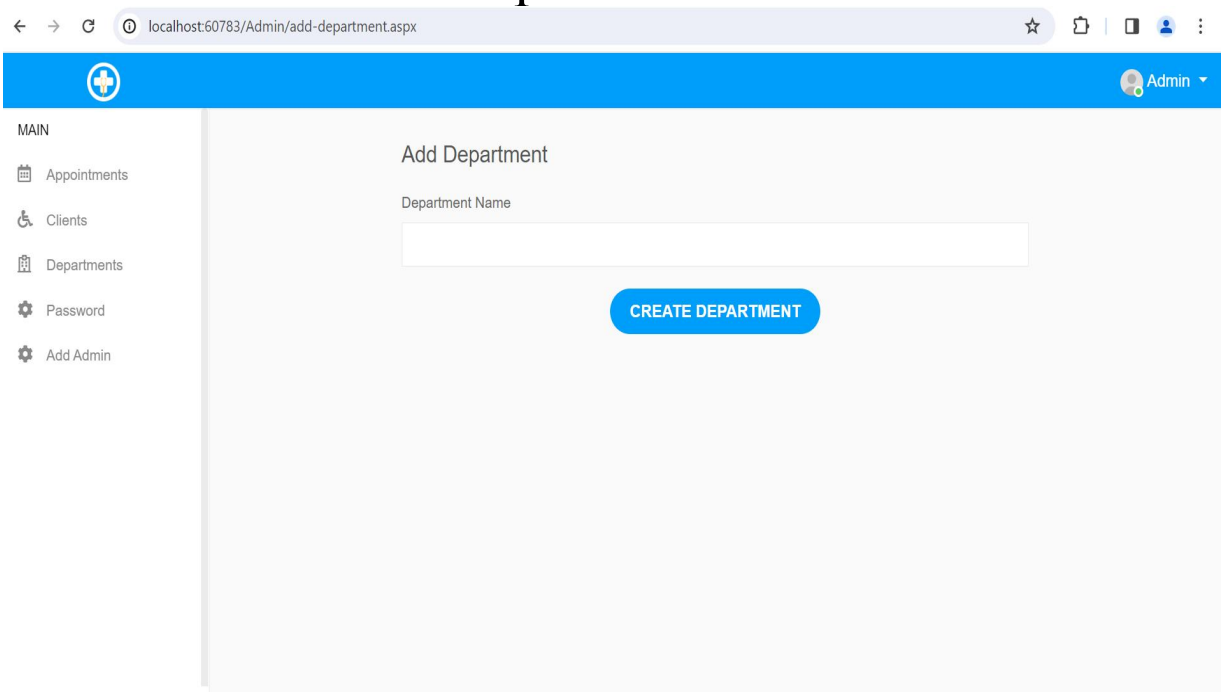
- Clients



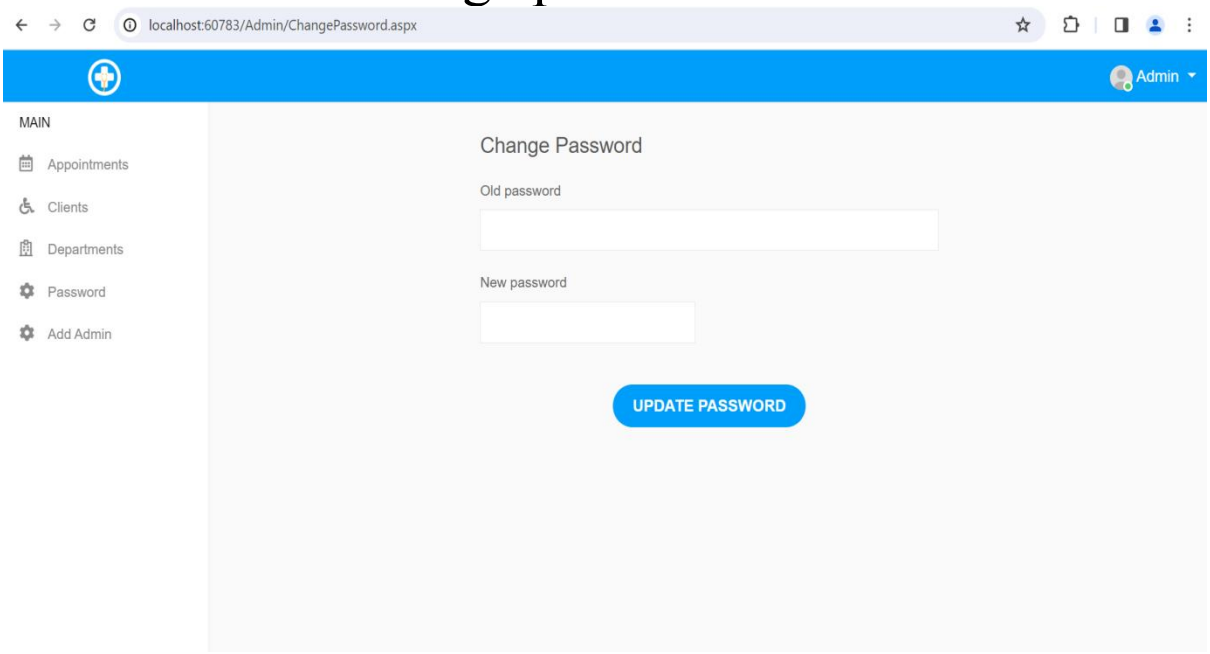
- Departments



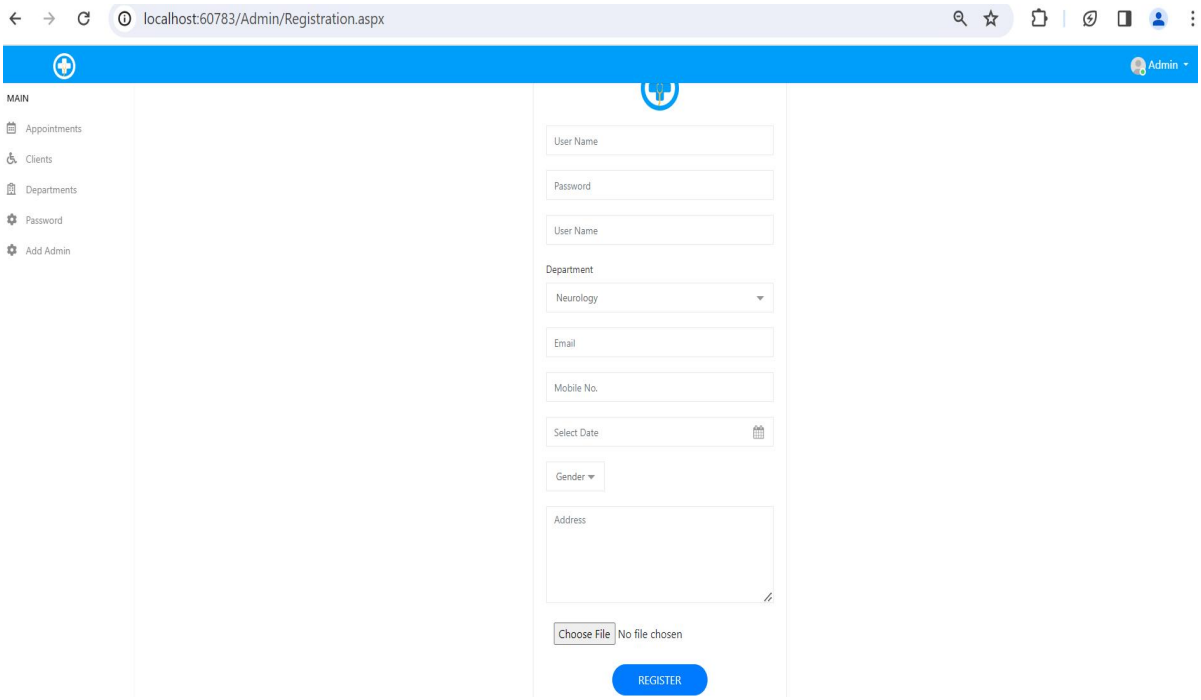
- Add-department



- Change password



- Add admin

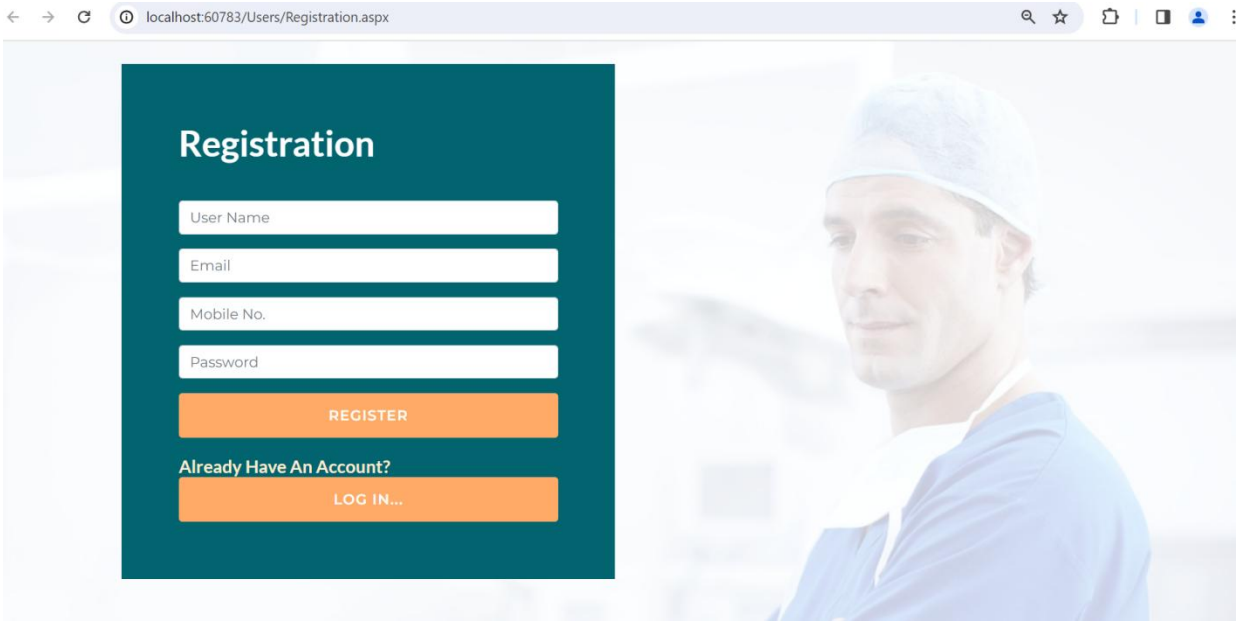


Client

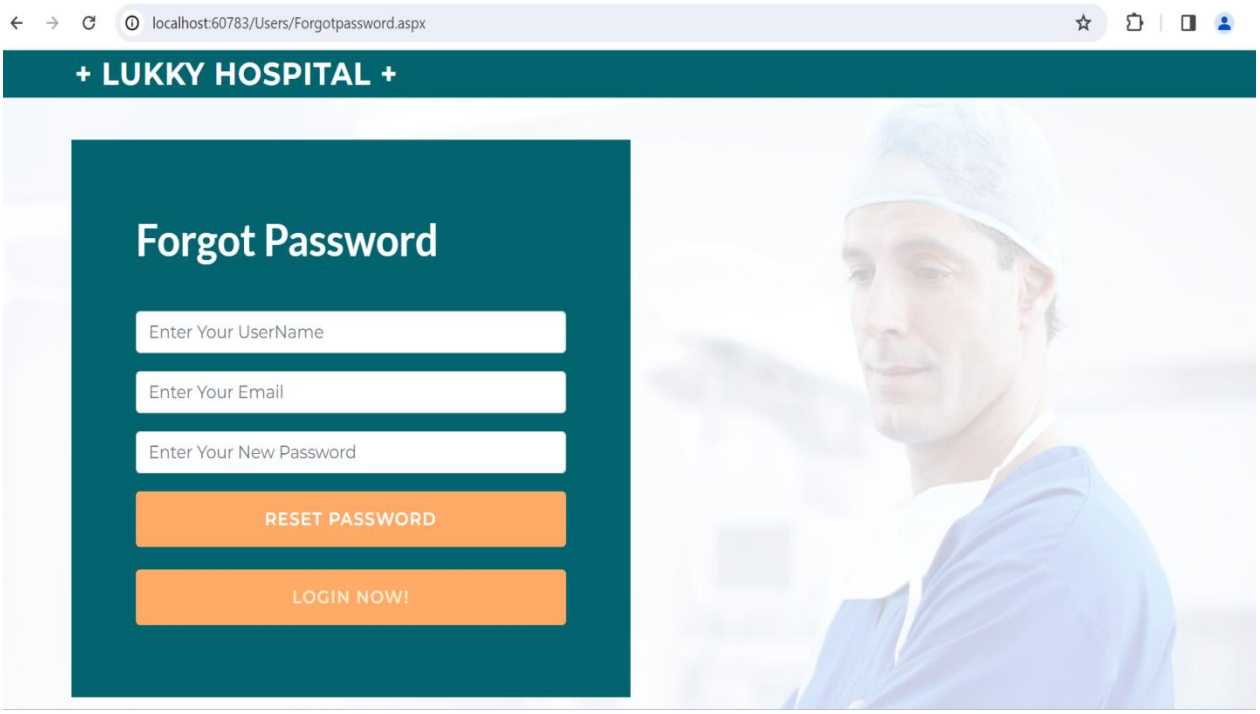
- **Login**
- **Registration**
- **Forgot password**
- **Masterpage(Client)**
- **Home**
- **Appointment**
- **About**
- **Gallery**
- **Contact**

● Login

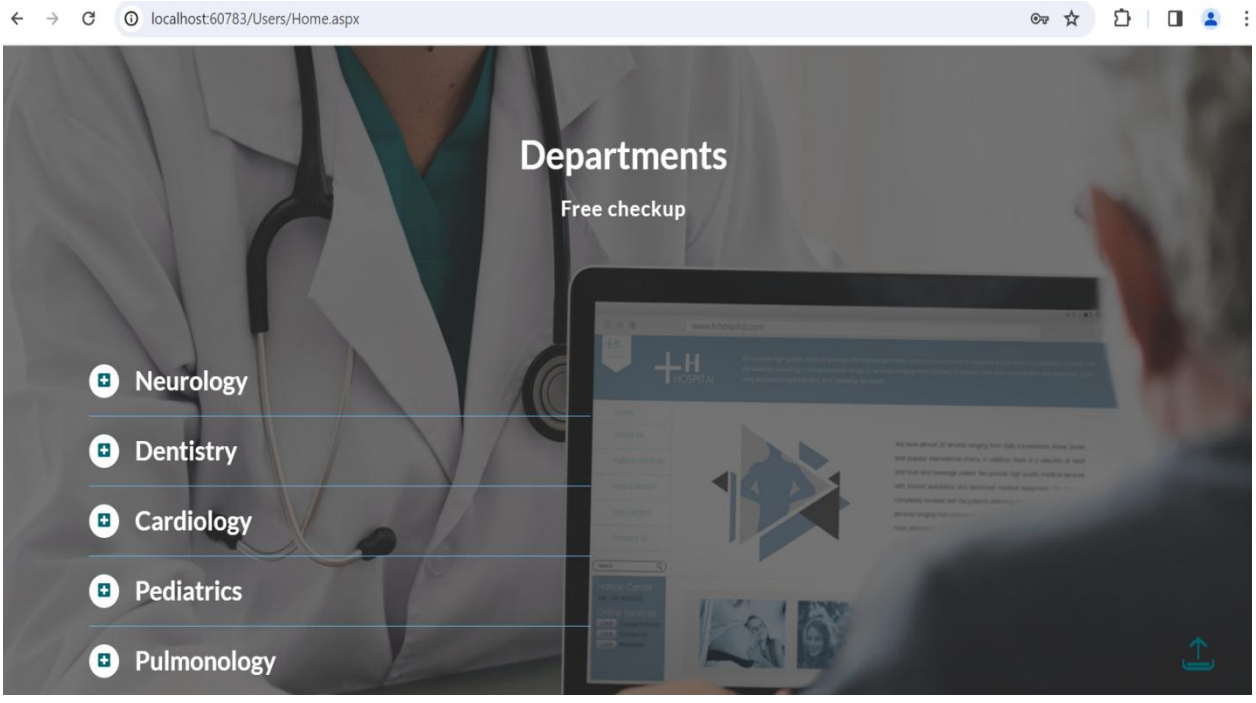
● Registration



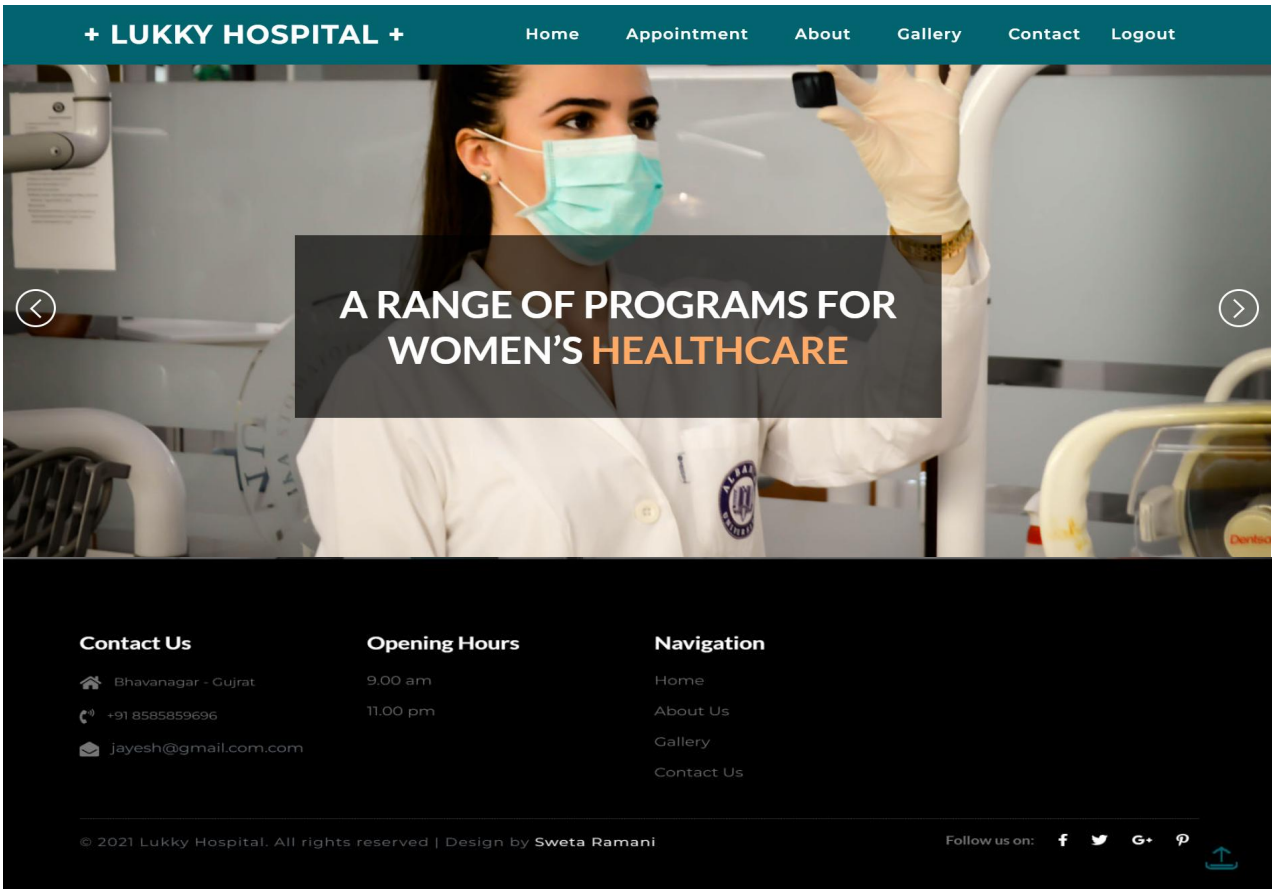
● Forgot password



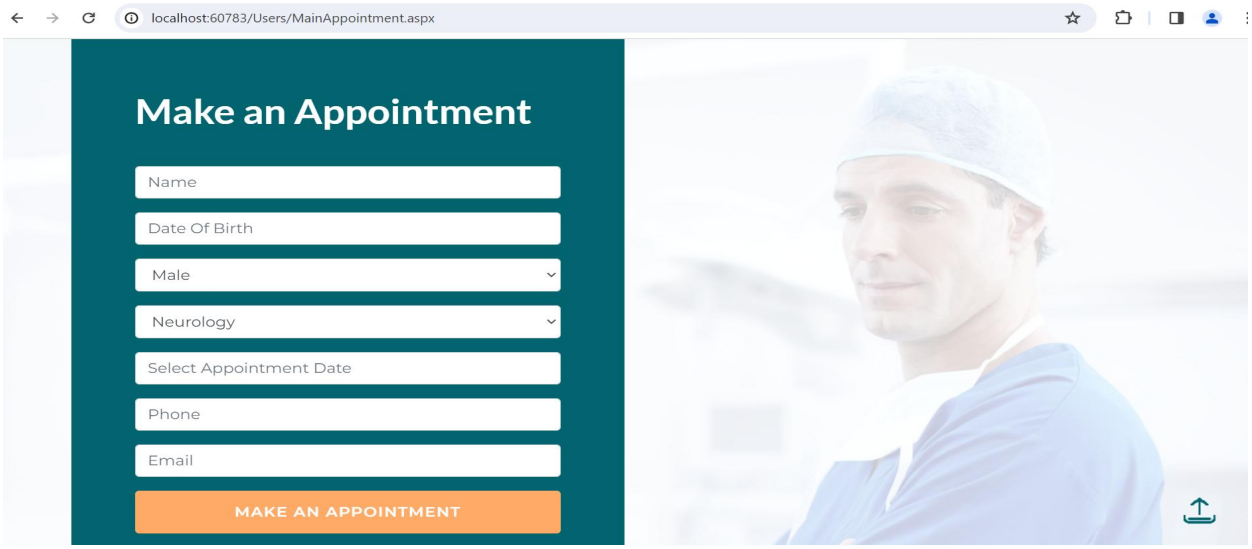
● Home



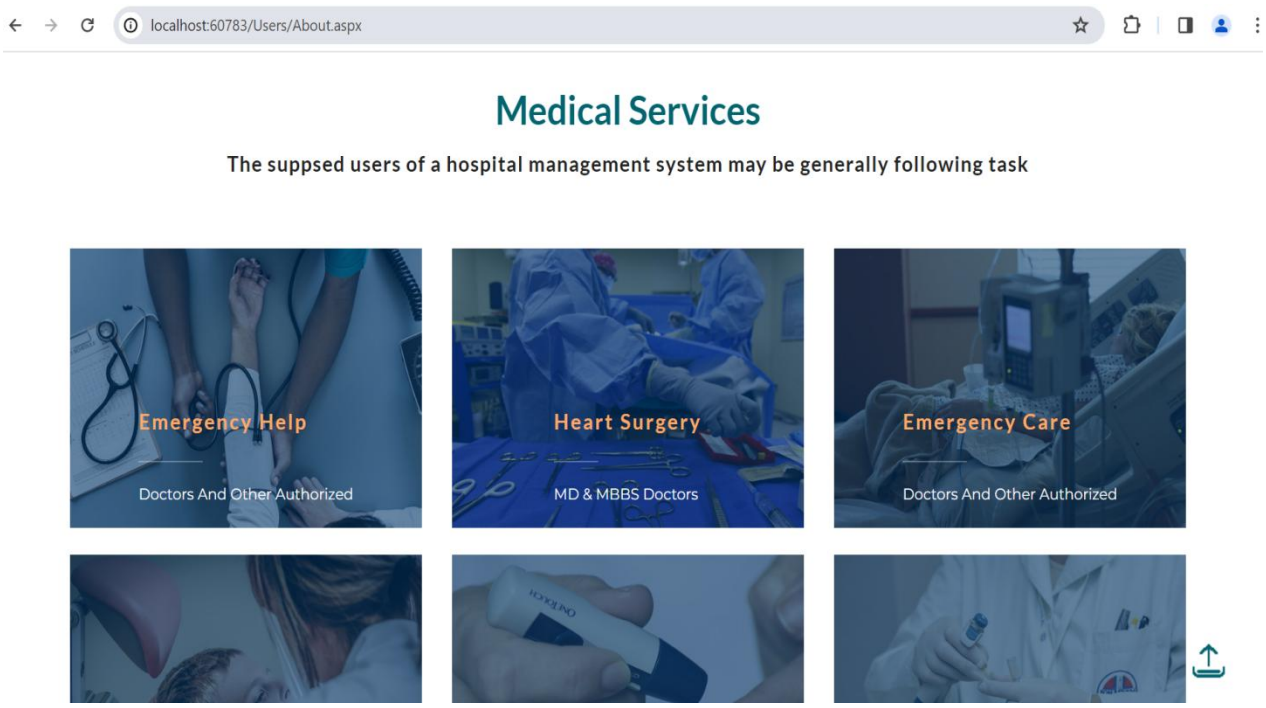
- **Masterpage(Client)**



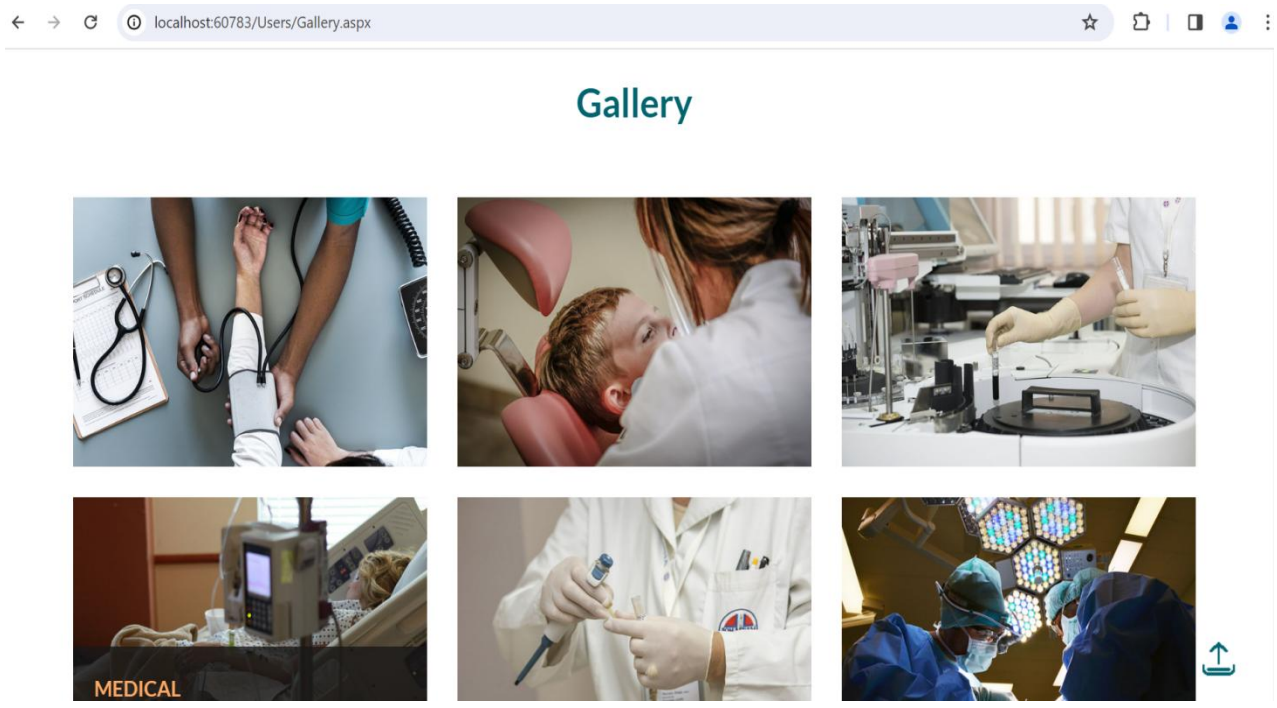
- **Appointment**



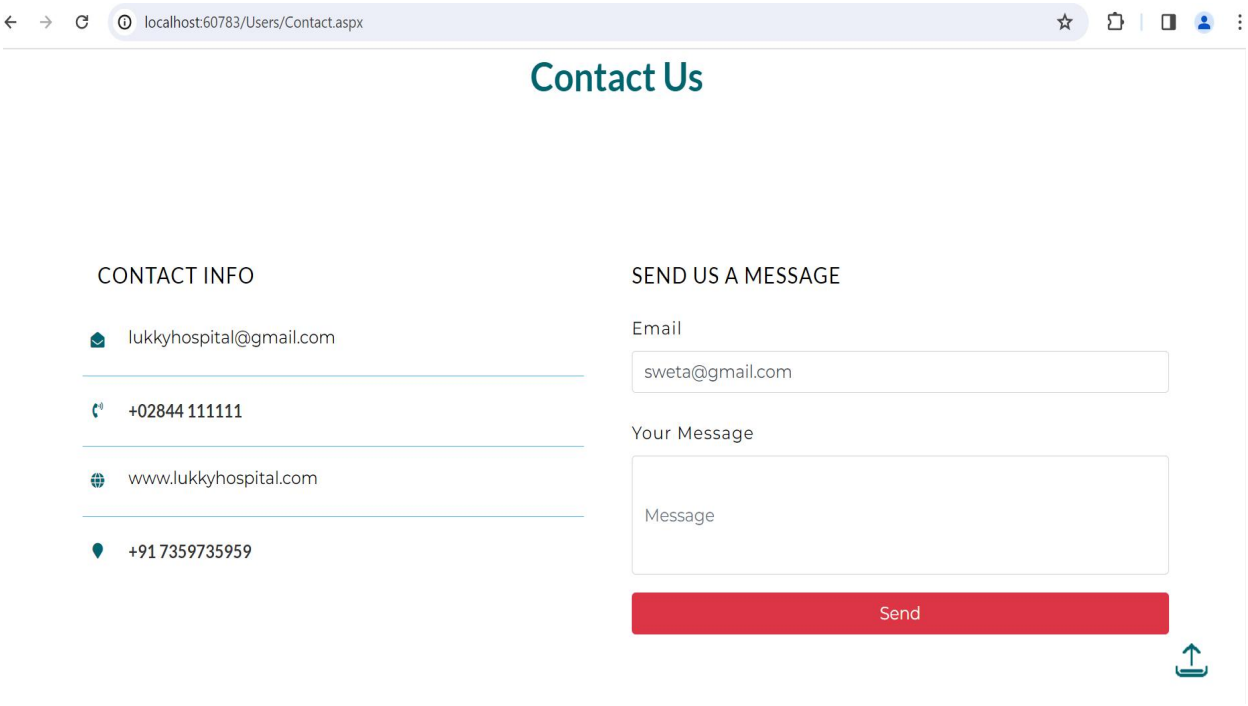
● About



● Gallery

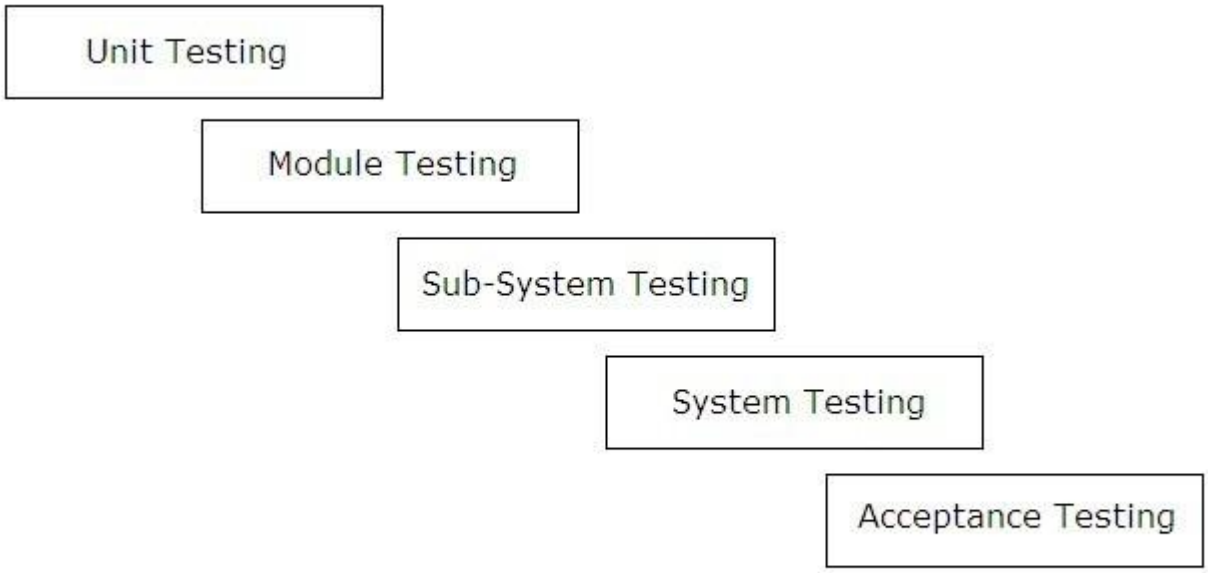


●Contact


localhost:60783/Users/Contact.aspx
Contact Us
CONTACT INFO
lukkyhospital@gmail.com
+02844 111111
www.lukkyhospital.com
+91 7359735959
SEND US A MESSAGE
Email
sweta@gmail.com
Your Message
Message
Send

About Testing

This is the most crucial phase in the software development cycle. The developed application is thoroughly tested. Testing procedures and requirements differ with the nature of the product. It basically involves running through the whole application and verifying that the functionality is as per the designs.



process is an iterative one with information being fed back from later stages to earlier parts of the process. The stage defines to earlier parts of the process. The stages defined in the above figure are explained as further :

Unit Testing

Individual components are tested to ensure that they operate correctly. Each component is tested independently without other system components. For example, whether an individual procedure is working properly or not is tested here.

Module Testing

A module is a collection of dependent components. A module encapsulates related components so that it can be tested without other system modules. In this project, one module is their, which contains a procedure, which is used by the project.

Sub-System Testing

This phase involves testing of collection of modules, which have been integrated into sub-systems. In this project, public module is, which is used by the project.

System Testing

The sub-systems are integrated to make the entire system. This testing process is concerned with finding errors, which normally results from unanticipated interaction between sub-system and components.

Acceptance Testing

This is the final test in the testing process before the system is accepted for operational use, some times called alpha testing. This process states whether the project satisfies all requirements specified by the customer or not.

Bibliography

I am creating this project in the initial stage of our career. To complete this project we refer books and website to learn many topics. Those are very useful to create this project. We use following books and websites :

Books

HTML
ASP.NET
C#

WebSites

W3layouts : http://www.W3layouts.com
Website:http://www.bootstrap.com
Websit: http://www.css.com

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Suggestion