

## **Health Sphere User Manual**

### **Installation/Setup Instructions:**

#### **1. Install the following prerequisites:**

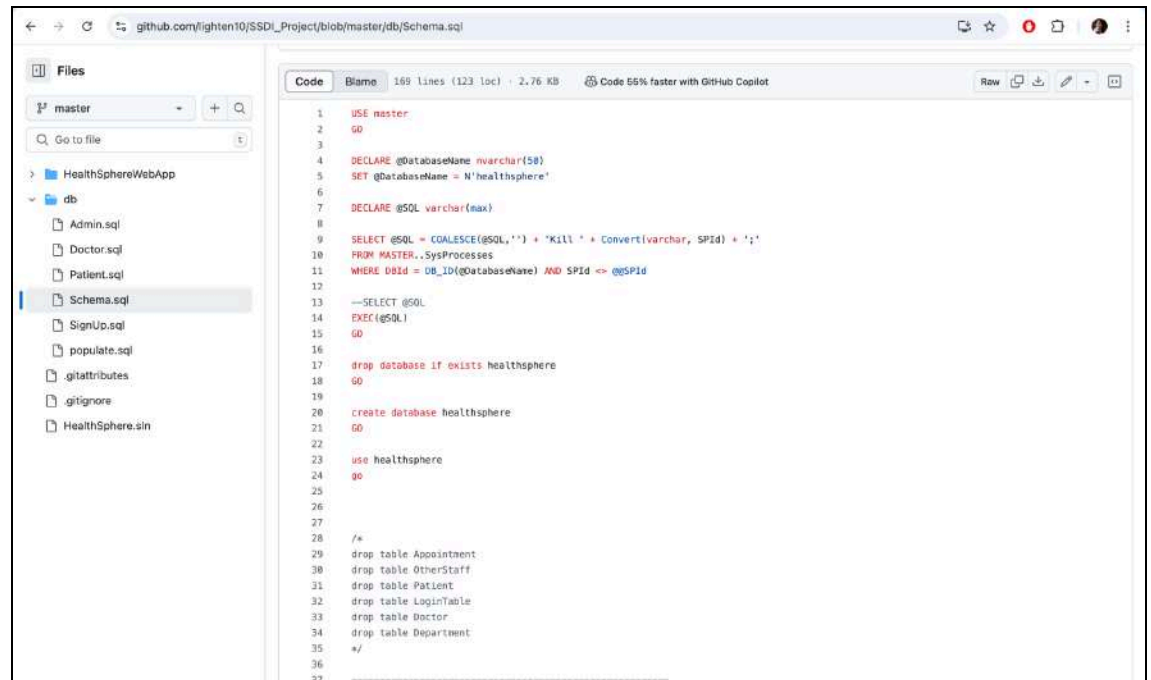
- Microsoft Visual Studio - Community edition
- Microsoft SQL Server Express
- Microsoft SQL Server Management Studio (SSMS)

#### **2. Connect to SQL Server:**

- Open **SQL Server Management Studio**
- In the "*Connect to Database Engine*" window, enter the following:
  - **Server Name:** .\SQL EXPRESS
  - **Authentication:** Windows Authentication

#### **3. Create the Database and Tables:**

- Open the Schema.sql file and execute it. This will create the necessary database and table structures.



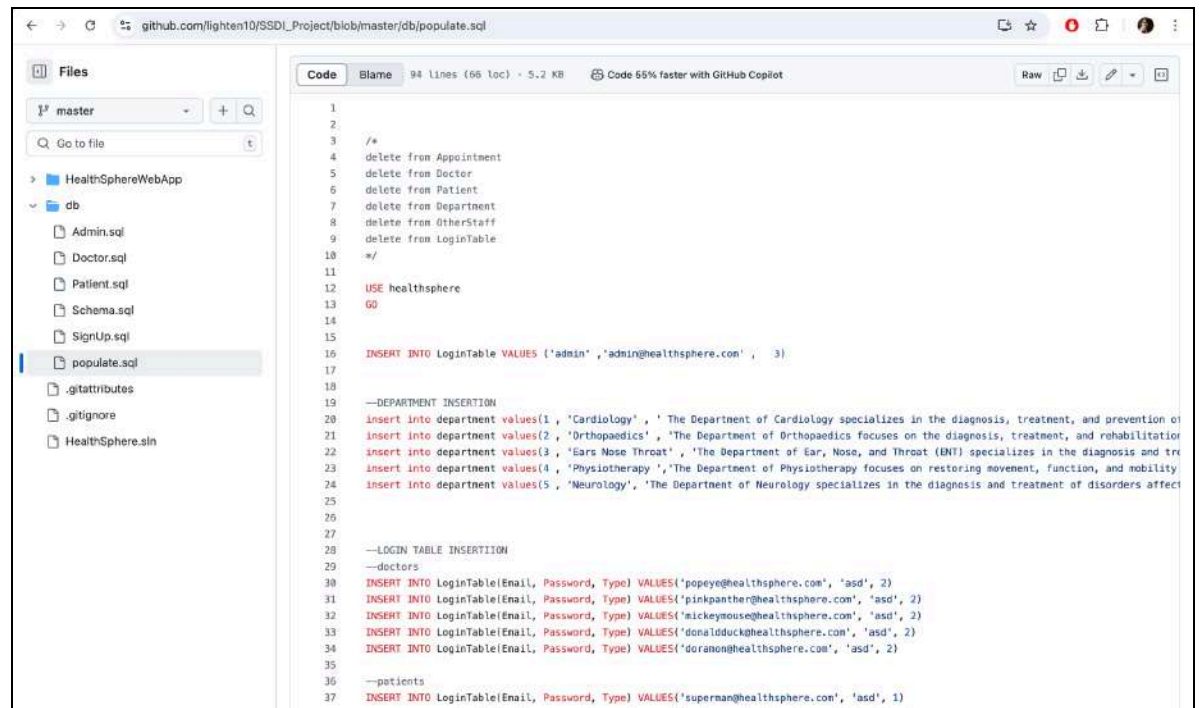
```
1  USE master
2  GO
3
4  DECLARE @DatabaseName nvarchar(50)
5  SET @DatabaseName = N'healthsphere'
6
7  DECLARE @SQL varchar(max)
8
9  SELECT @SQL = COALESCE(@SQL, '') + 'Kill ' + Convert(varchar, SPID) + ';'
10 FROM MASTER..SysProcesses
11 WHERE DBId = DB_ID(@DatabaseName) AND SPID <> @@SPID
12
13 --SELECT @SQL
14 EXEC(@SQL)
15 GO
16
17 drop database if exists healthsphere
18 GO
19
20 create database healthsphere
21 GO
22
23 use healthsphere
24 go
25
26
27
28 /*
29 drop table Appointment
30 drop table OtherStaff
31 drop table Patient
32 drop table LoginTable
33 drop table Doctor
34 drop table Department
35 */
36
37
```

- Then, execute the following SQL files in order:

- Admin.sql
- Doctor.sql
- Patient.sql
- Signup.sql

#### 4. Populate the Database:

- Run the populate.sql file to add sample data to the database.



```
1
2
3 /*
4 delete from Appointment
5 delete from Doctor
6 delete from Patient
7 delete from Department
8 delete from OtherStaff
9 delete from LoginTable
10 */
11
12 USE healthsphere
13 GO
14
15
16 INSERT INTO LoginTable VALUES ('admin', 'admin@healthsphere.com', 3)
17
18
19 --DEPARTMENT INSERTION
20 insert into department values(1, 'Cardiology', 'The Department of Cardiology specializes in the diagnosis, treatment, and prevention of
21 insert into department values(2, 'Orthopaedics', 'The Department of Orthopaedics focuses on the diagnosis, treatment, and rehabilitation
22 insert into department values(3, 'Ears Nose Throat', 'The Department of Ear, Nose, and Throat (ENT) specializes in the diagnosis and tre
23 insert into department values(4, 'Physiotherapy', 'The Department of Physiotherapy focuses on restoring movement, function, and mobility
24 insert into department values(5, 'Neurology', 'The Department of Neurology specializes in the diagnosis and treatment of disorders affect
25
26
27
28 --LOGIN TABLE INSERTION
29 --doctors
30 INSERT INTO LoginTable(Email, Password, Type) VALUES('popeye@healthsphere.com', 'asd', 2)
31 INSERT INTO LoginTable(Email, Password, Type) VALUES('pinkpanther@healthsphere.com', 'asd', 2)
32 INSERT INTO LoginTable(Email, Password, Type) VALUES('mickeymouse@healthsphere.com', 'asd', 2)
33 INSERT INTO LoginTable(Email, Password, Type) VALUES('donaldduck@healthsphere.com', 'asd', 2)
34 INSERT INTO LoginTable(Email, Password, Type) VALUES('doranon@healthsphere.com', 'asd', 2)
35
36 --patients
37 INSERT INTO LoginTable(Email, Password, Type) VALUES('superman@healthsphere.com', 'asd', 1)
```

- This file also contains sample login credentials for doctors, patients, and an admin, which you can use to test the system's functionality.

## 5. Run the Project:

- Open the Visual Studio solution file HealthSphere.sln.
- Set SignUp.aspx as the startup page.
- Click the **IIS Express** run button to launch the application.

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## Technical Specification of the Health Sphere project



### System Requirements

- Operating System: Windows 10 or later (64-bit)
- Processor: Intel Core i5 or equivalent (minimum)

## Software Requirements

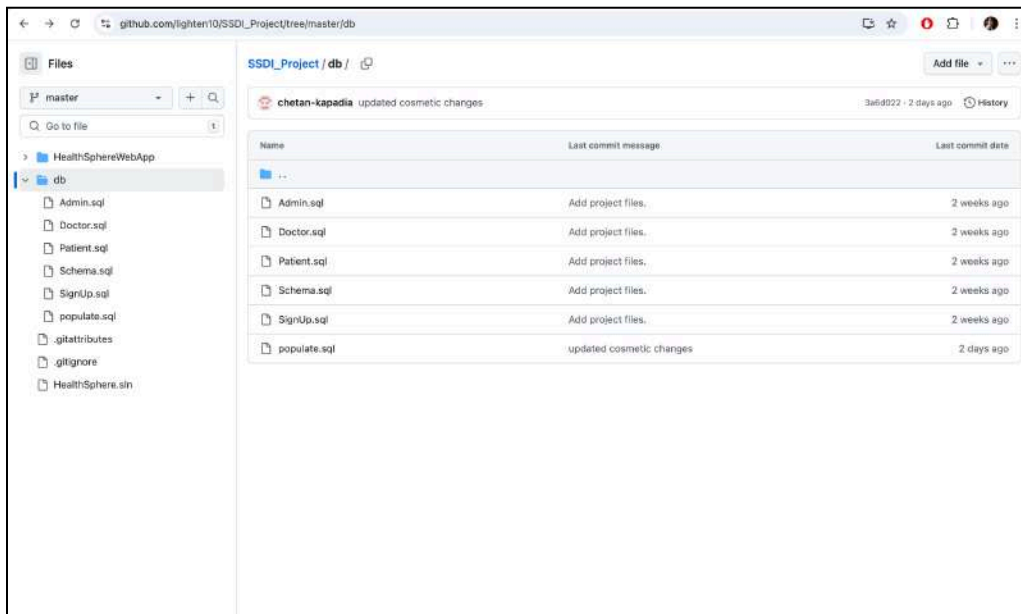
- Microsoft Visual Studio 2022 (or later)
  - Workload: ASP.NET and web development
- .NET Framework 4.7.2, Bootstrap(CSS, JS)
- Microsoft SQL Server Express 2019 (or later)
- SQL Server Management Studio (SSMS)

## Dependencies

- IIS Express (automatically included with Visual Studio)
- ASP.NET Web Forms
- SQL Server LocalDB or SQL Express instance
- Browsers: Google Chrome, Microsoft Edge (latest versions recommended)

## Project Structure

- Database Files - Admin.sql, Doctor.sql, Patient.sql, Schema.sql, SignUp.sql, Populate.sql



The screenshot shows a GitHub repository page for the 'SSDI\_Project' at the 'master/db' path. The left sidebar displays the file tree with the following files: Admin.sql, Doctor.sql, Patient.sql, Schema.sql, SignUp.sql, populate.sql, .gitattributes, .gitignore, and HealthSphere.sin. The main content area shows the commit history for the 'db' directory, with a table listing the files and their commit messages and dates.

Name	Last commit message	Last commit date
..		
Admin.sql	Add project files.	2 weeks ago
Doctor.sql	Add project files.	2 weeks ago
Patient.sql	Add project files.	2 weeks ago
Schema.sql	Add project files.	2 weeks ago
SignUp.sql	Add project files.	2 weeks ago
populate.sql	updated cosmetic changes	2 days ago

- Health Sphere Web App - 3 distinct roles (Admin's role, Doctor's role, and Patient's role)

github.com/lighten10/SSDL\_Project/tree/master/HealthSphereWebApp/Admin

lighten10 / SSDL\_Project

Type to search

Code Issues Pull requests Actions Projects Security Insights

Files

master

Go to file

HealthSphereWebApp

Admin

AddStaff.aspx

AddStaff.aspx.cs

AddStaff.aspx.designer.cs

Admin.Master

Admin.Master.cs

Admin.Master.designer.cs

AdminHome.aspx

AdminHome.aspx.cs

AdminHome.aspx.designer.cs

DoctorRegistrationForm.aspx

DoctorRegistrationForm.aspx.cs

DoctorRegistrationForm.aspx.d...

ManageClinic.aspx

ManageClinic.aspx.cs

ManageClinic.aspx.designer.cs

SSDL\_Project / HealthSphereWebApp / Admin /

chetan-kapadia updated cosmetic changes 3a6d022 · 2 days ago History

Name	Last commit message	Last commit date
..		
AddStaff.aspx	updated cosmetic changes	2 days ago
AddStaff.aspx.cs	Add project files.	2 weeks ago
AddStaff.aspx.designer.cs	Add project files.	2 weeks ago
Admin.Master	updated cosmetic changes	2 days ago
Admin.Master.cs	Add project files.	2 weeks ago
Admin.Master.designer.cs	Add project files.	2 weeks ago
AdminHome.aspx	updated cosmetic changes	2 days ago
AdminHome.aspx.cs	Add project files.	2 weeks ago
AdminHome.aspx.designer.cs	Add project files.	2 weeks ago
DoctorRegistrationForm.aspx	updated cosmetic changes	2 days ago
DoctorRegistrationForm.aspx.cs	Add project files.	2 weeks ago
DoctorRegistrationForm.aspx.designer.cs	Add project files.	2 weeks ago

github.com/lighten10/SSDL\_Project/tree/master/HealthSphereWebApp/Doctor

lighten10 / SSDL\_Project

Type to search

Code Issues Pull requests Actions Projects Security Insights

Files

master

Go to file

HealthSphereWebApp

DAL

Doctor

Bill.aspx

Bill.aspx.cs

Bill.aspx.designer.cs

DoctorHome.aspx

DoctorHome.aspx.cs

DoctorHome.aspx.designer.cs

DoctorMaster.Master

DoctorMaster.Master.cs

DoctorMaster.Master.designer.cs

HistoryUpdate.aspx

HistoryUpdate.aspx.cs

HistoryUpdate.aspx.designer.cs

PatientHistory.aspx

PatientHistory.aspx.cs

PatientHistory.aspx.designer.cs

SSDL\_Project / HealthSphereWebApp / Doctor /

chetan-kapadia updated cosmetic changes 3a6d022 · 2 days ago History

Name	Last commit message	Last commit date
..		
Bill.aspx	updated cosmetic changes	2 days ago
Bill.aspx.cs	updated cosmetic changes	2 days ago
Bill.aspx.designer.cs	updated cosmetic changes	2 days ago
DoctorHome.aspx	updated background images and default doctor's content	last week
DoctorHome.aspx.cs	Add project files.	2 weeks ago
DoctorHome.aspx.designer.cs	Add project files.	2 weeks ago
DoctorMaster.Master	updated cosmetic changes	2 days ago
DoctorMaster.Master.cs	Add project files.	2 weeks ago
DoctorMaster.Master.designer.cs	Add project files.	2 weeks ago
HistoryUpdate.aspx	updated cosmetic changes	2 days ago
HistoryUpdate.aspx.cs	Add project files.	2 weeks ago
HistoryUpdate.aspx.designer.cs	Add project files.	2 weeks ago
PatientHistory.aspx	updated cosmetic changes	2 days ago
PatientHistory.aspx.cs	Add project files.	2 weeks ago
PatientHistory.aspx.designer.cs	Add project files.	2 weeks ago

SSDL\_Project / HealthSphereWebApp / Patient /

chetan-kapadia updated cosmetic changes 3a6022 · 2 days ago History

Name	Last commit message	Last commit date
..		
AppointmentRequestSent.aspx	Add project files.	2 weeks ago
AppointmentRequestSent.aspx.cs	Add project files.	2 weeks ago
AppointmentRequestSent.aspx.designer.cs	Add project files.	2 weeks ago
AppointmentTaker.aspx	updated cosmetic changes	2 days ago
AppointmentTaker.aspx.cs	Add project files.	2 weeks ago
AppointmentTaker.aspx.designer.cs	Add project files.	2 weeks ago
BillsHistory.aspx	updated cosmetic changes	2 days ago
BillsHistory.aspx.cs	Add project files.	2 weeks ago
BillsHistory.aspx.designer.cs	Add project files.	2 weeks ago
CurrentAppointment.aspx	Add project files.	2 weeks ago
CurrentAppointment.aspx.cs	Add project files.	2 weeks ago
CurrentAppointment.aspx.designer.cs	Add project files.	2 weeks ago
DoctorProfile.aspx	updated cosmetic changes	2 days ago
DoctorProfile.aspx.cs	Add project files.	2 weeks ago
DoctorProfile.aspx.designer.cs	Add project files.	2 weeks ago

- The application starts from SignUp.aspx.

github.com/lighten10/SSDL\_Project/blob/master/HealthSphereWebApp/SignUp.aspx

Code Blame 346 lines (222 loc) · 12.9 KB Code 65% faster with GitHub Copilot Raw

```

1 <% Page Language="C#" AutoEventWireup="true" CodeBehind="SignUp.aspx.cs" Inherits="HealthSphereWebApp.SignUp" %>
2
3 <!DOCTYPE html>
4
5 <html xmlns="http://www.w3.org/1999/xhtml">
6 <head runat="server">
7
8 <title>HealthSphere Login &reg; Register</title>
9
10
11 <script type="text/javascript">
12
13
14 //-----Function1-----//
15 function validateEmail(email) {
16     if (email == "") {
17         alert("Email missing. Enter Email.");
18         return false;
19     }
20
21     else if (Email.indexOf("@") == -1 || Email.indexOf(".") == -1) {
22         alert("Your email address seems incorrect. Please enter a new one.");
23         return false;
24     }
25
26     else {
27         var location = Email.indexOf("@");
28
29         if (Email[0] == "0" || Email[location + 1] == ".") {
30             alert("Your email address seems incorrect. Please enter a new one.");
31             return false;
32         }
33
34         var emailPat = /^[^(){} \[\] \.,;:\'@*"]+$/;
35         var EmailmatchArray = Email.match(emailPat);
36
37         if (EmailmatchArray == null) {
38             alert("Your email address seems incorrect. Please enter a new one.");
39         }
40     }
41 }

```

## 🔑 Sample Login Credentials (Test Users)

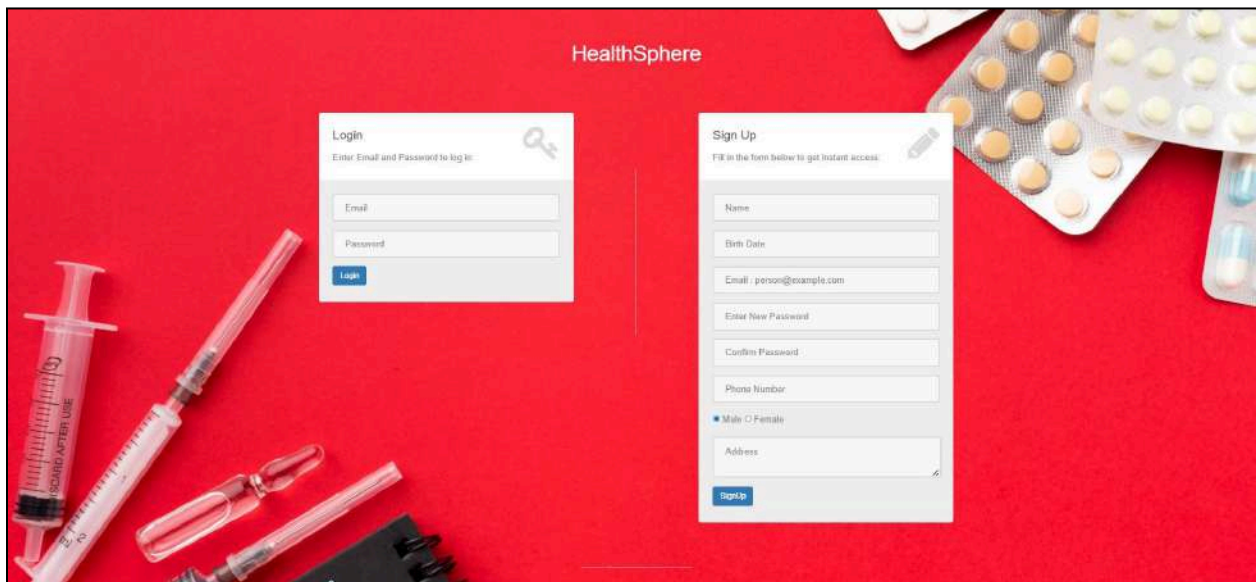
These are located in populate.sql, including credentials for:

- **Admin**
- **Doctors**
- **Patients**

These can be used to test role-based functionalities such as login, dashboard access, and other features.

## 🚀 Running the Application

- Open HealthSphereWebApp in Visual Studio.
- Set **SignUp.aspx** as the startup page.



- Click the **IIS Express** (Run) button.
  - The application will launch in your default browser.
-

## **Main Features of the System**

**Health Sphere** is an integrated digital healthcare management system developed to improve communication and coordination among patients, healthcare providers, and administrative personnel. The platform offers a secure and user-friendly interface that supports efficient user management, seamless appointment scheduling, and comprehensive access to medical history and billing information. By centralizing these essential healthcare functions, Health Sphere enhances the overall quality of care, simplifies administrative tasks, and contributes to more effective and streamlined healthcare delivery.

The **patient portal** offers a range of features designed to enhance user experience and streamline medical interactions. Upon logging in, patients can access the *Patient Home*, which displays their personal profile. In the *Current Appointment* section, patients can check for any pending or approved appointments with doctors. The *Bills History* tab provides a record of bills related to completed appointments, while the *Treatment History* section allows patients to view detailed information about past treatments. To schedule a new visit, patients can navigate to the *Take Appointment* section, where they can browse all available departments, select a specific department to view the associated doctors, and then choose a doctor to view their profile. From there, they can click the "Take Appointment" button to see the doctor's available time slots, select a preferred slot, and send a request to the doctor, who can then approve or reject the appointment. Notifications regarding the status of appointment requests are displayed under the *Notifications* tab. After a consultation is completed, patients are encouraged to provide feedback by rating their experience from 1 to 5 in the *Feedback* section. Importantly, the system allows patients to request only one appointment at a time; additional appointments cannot be scheduled until the current one has been completed.

The **doctor's portal** is designed to facilitate efficient management of appointments and patient records. Through the *Doctor Profile* section, doctors can view their personal and professional information. In the *Pending Appointments* tab, they can access a list of all appointment requests awaiting their approval, filtered by their doctor ID. The *Today's Appointments* section displays all appointments scheduled for the current day, allowing the doctor to either accept or reject each appointment as needed. After a consultation, the *History Update* feature enables the doctor to record key details such as prescriptions, diagnosed diseases, and the patient's progress. Following this, the doctor can use the *Generate Bill* section to create and issue the bill for the completed appointment. Additionally, the *Patient History* tab provides access to the full treatment history of all patients the doctor has previously treated, ensuring continuity of care and easy reference.

The **admin portal** provides a comprehensive interface for managing HealthSphere operations and overseeing all registered users. On the *Admin Home* page, the administrator can view key health center statistics, including the number of weekly appointments, overall income of the health center, the total number of registered patients and doctors, as well as a list of all medical departments. The *View Doctors* section displays a list of all currently registered doctors along with their associated departments and other relevant details; clicking on a doctor's name reveals their full profile. Similarly, the *View Patients* tab allows the admin to browse through the list of registered patients, including their phone numbers and IDs, with full profile access upon selection. The *View Other Staff* section lists all non-medical personnel along with their respective designations. To streamline navigation, a *Search Box* is available, enabling the admin

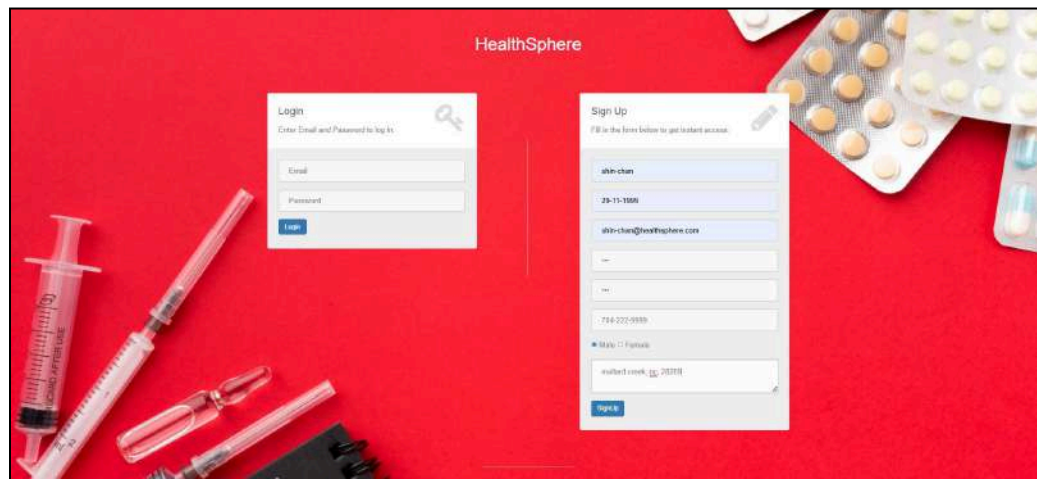


to quickly locate any employee by name. Additionally, the *Add/Remove* feature allows the admin to manage Health Center personnel by adding or removing doctors, patients, or staff members as needed.

---

## **Walkthrough for the main scenarios**

- To access Health Sphere, the first page is the **HealthSphere signUp page** as shown below. Doctors, Patients or Administrative personnel can use this page accordingly for either sign up or login to HealthSphere.



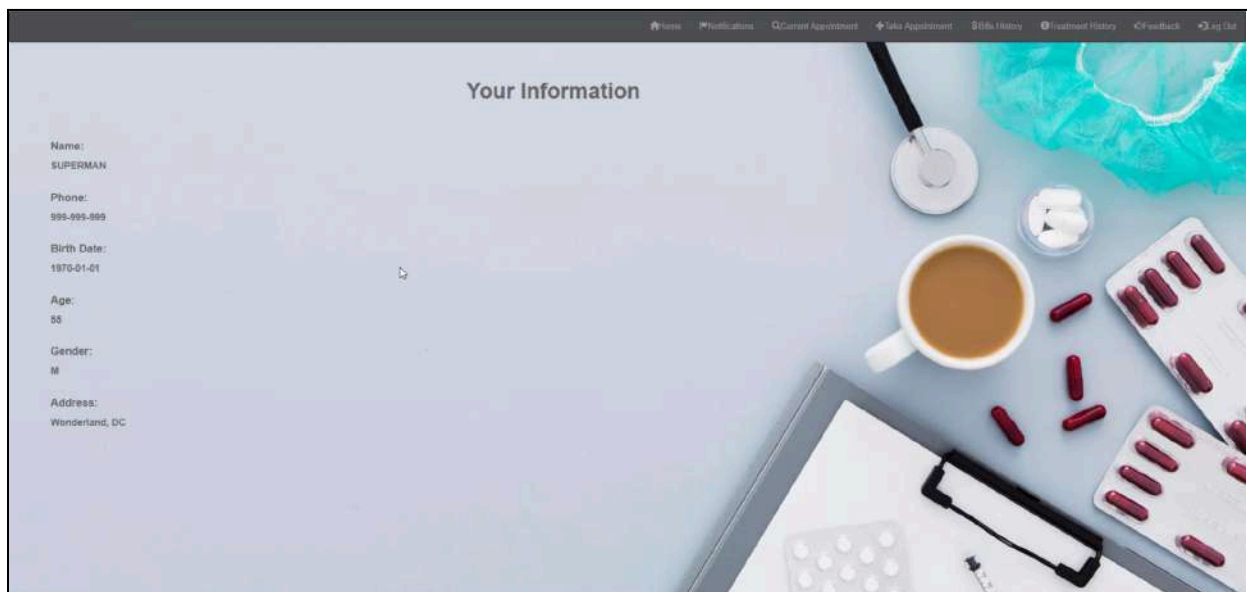
Below is the written code for it:

```

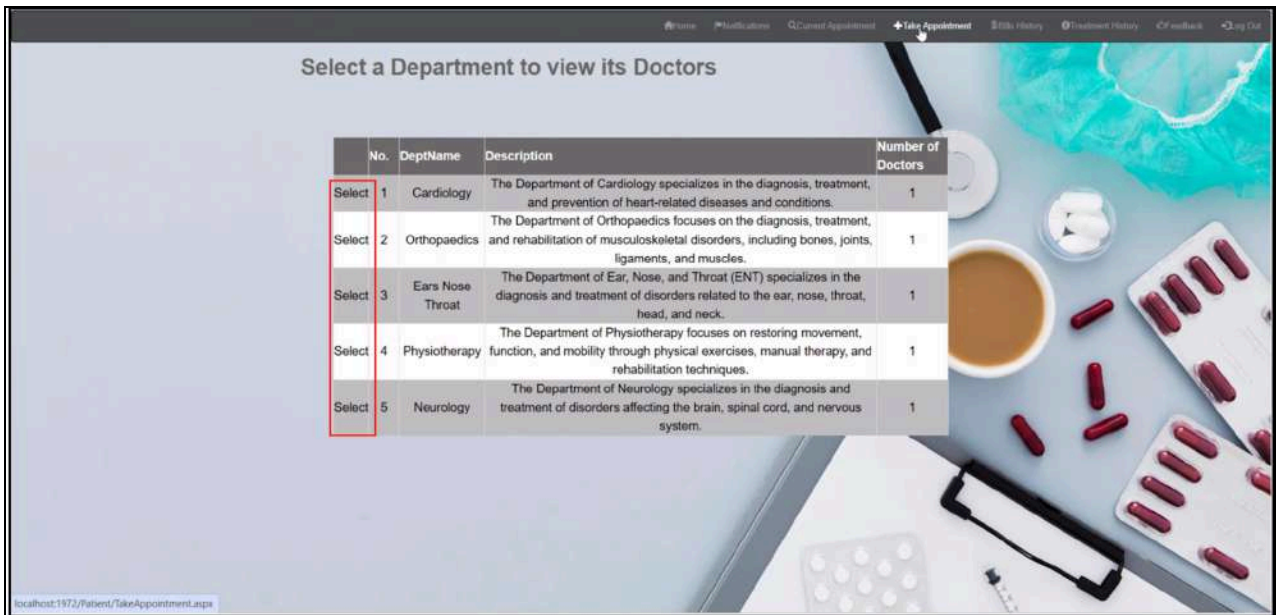
1 <% Page Language="C#" AutoEventWireup="true" CodeBehind="SignUp.aspx.cs" Inherits="HealthSphereWebApp.SignUp" %>
2
3 <!DOCTYPE html>
4
5 <html xmlns="http://www.w3.org/1999/xhtml">
6 <head runat="server">
7
8     <title>HealthSphere Login & Register</title>
9
10
11     <script type="text/javascript">
12
13         //-----Function1-----//
14         function validateEmail(email) {
15             if (email == "") {
16                 alert("Email missing. Enter Email.");
17                 return false;
18             }
19
20             else if (email.indexOf("@") == -1 || email.indexOf(".") == -1) {
21                 alert("Your email address seems incorrect. Please enter a new one.");
22                 return false;
23             }
24
25             else {
26                 var location = email.indexOf("@");
27
28                 if (email[0] == '@' || email[location + 1] == '.') {
29                     alert("Your email address seems incorrect. Please enter a new one.");
30                     return false;
31                 }
32
33                 var emailPat = /^[^()\\[\]{};:'".,:;@*~\s!<\/pre>

```

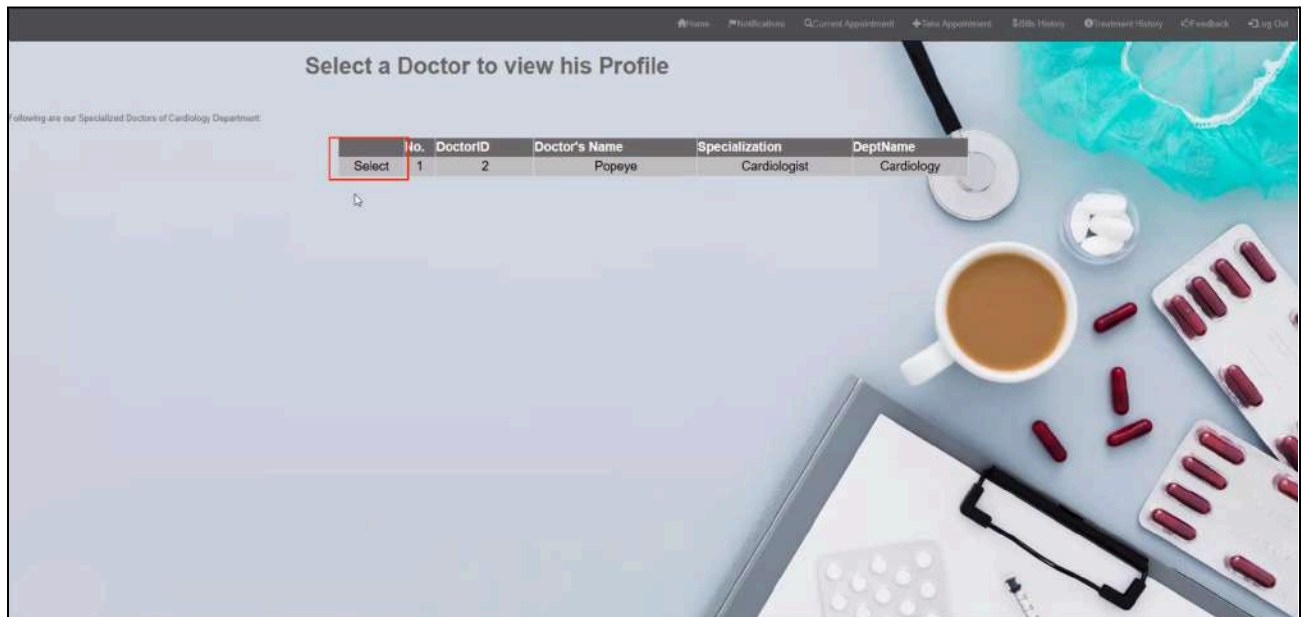
- **Patients** gain access to multiple facilities upon registering on the HealthSphere website. Below is the landing page of a patient named “SUPERMAN” after he logs into the HealthSphere website.



- **Patients** can take appointments as per their need by clicking on the “**Take Appointment**” button. A list of departments are then displayed after which the patient is allowed to select a particular department with the help of the “**Select**” option.




- **Patients** will be able to see the doctor for the department he/she has chosen and also his profile as shown below. Once the patient is sure about the doctor, the patient can then select a free time according to the doctor's schedule and send an appointment request to the doctor.



### Doctor's Profile

Name: Popeye  
Phone: 123456789  
Qualification: MD  
Specialization: Cardiologist  
Work Experience: 10  
Age: 35  
Gender: M  
Department: Cardiology  
Charges Per Appointment: 2500  
Repute Index: 4  
Number of Patients Treated: 1

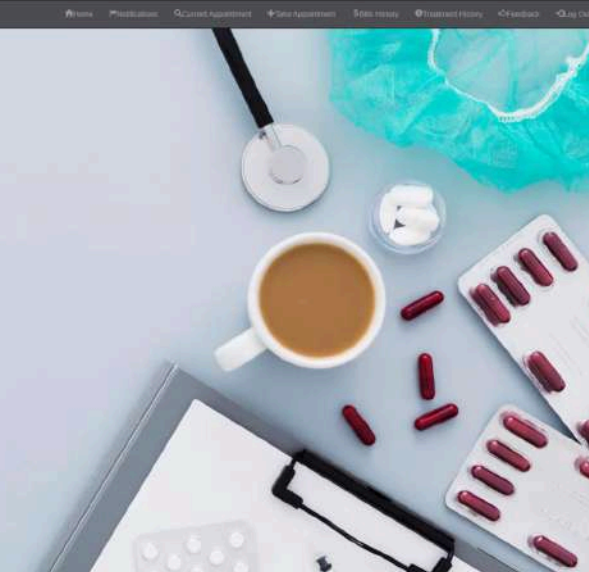
[Take Appointment](#)

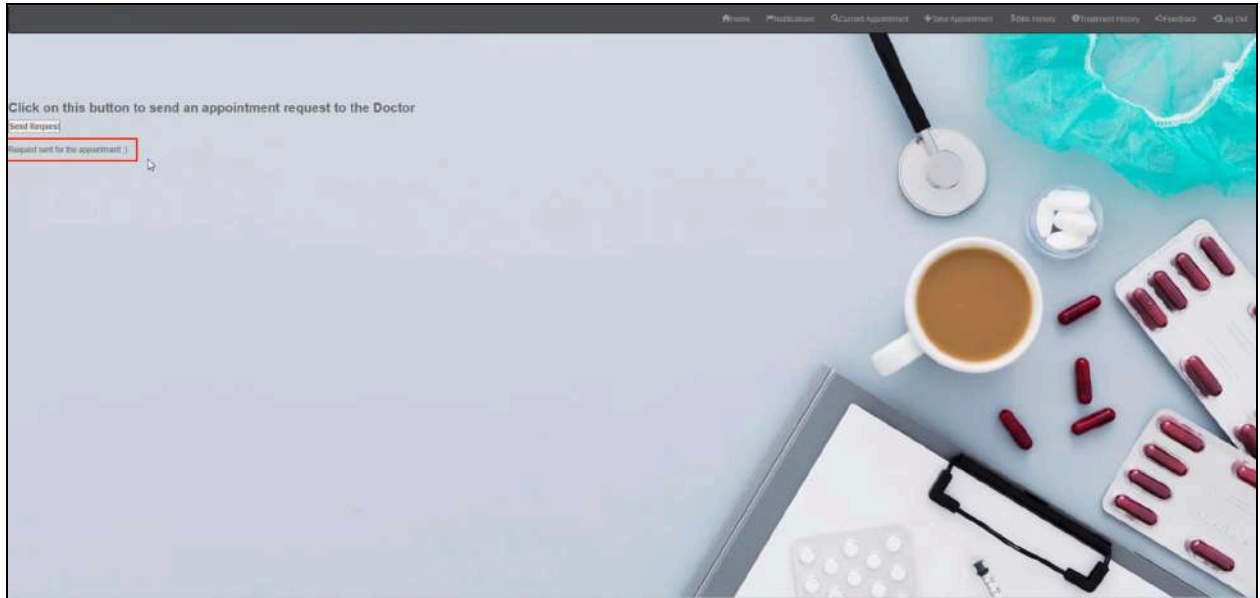


[Home](#) [Profile](#) [Qualification](#) [Take Appointment](#) [Send Request](#) [Treatment History](#) [Feedback](#) [Logout](#)

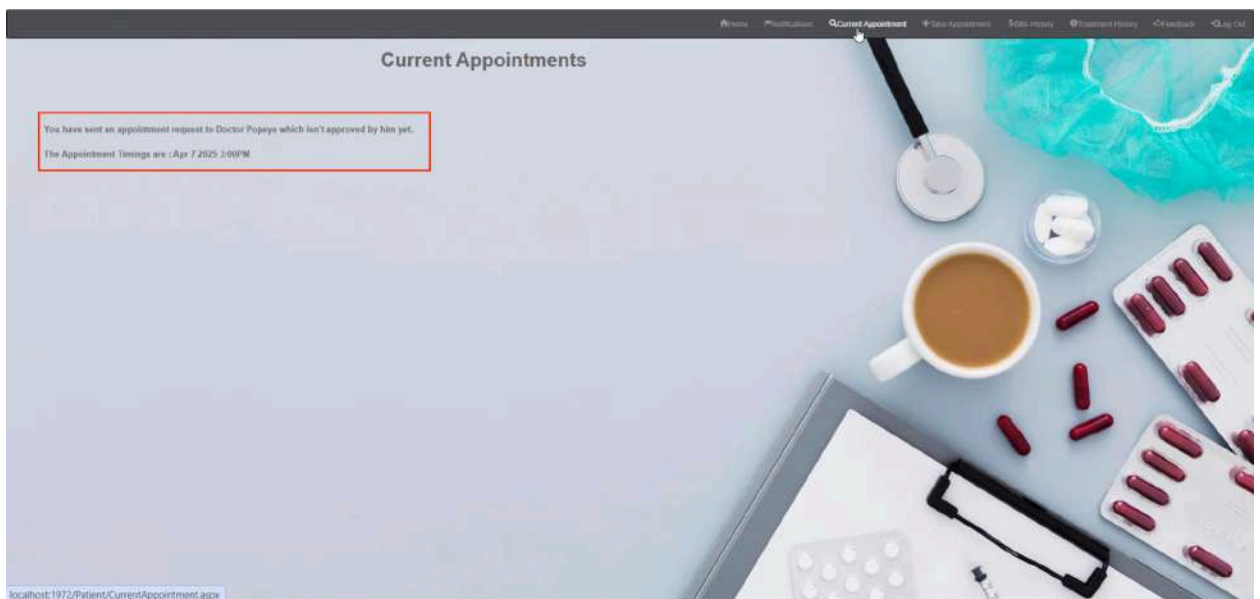
Click on this button to send an appointment request to the Doctor

[Send Request](#)





- **Patients** will be able to check their current appointments with any of the doctors.

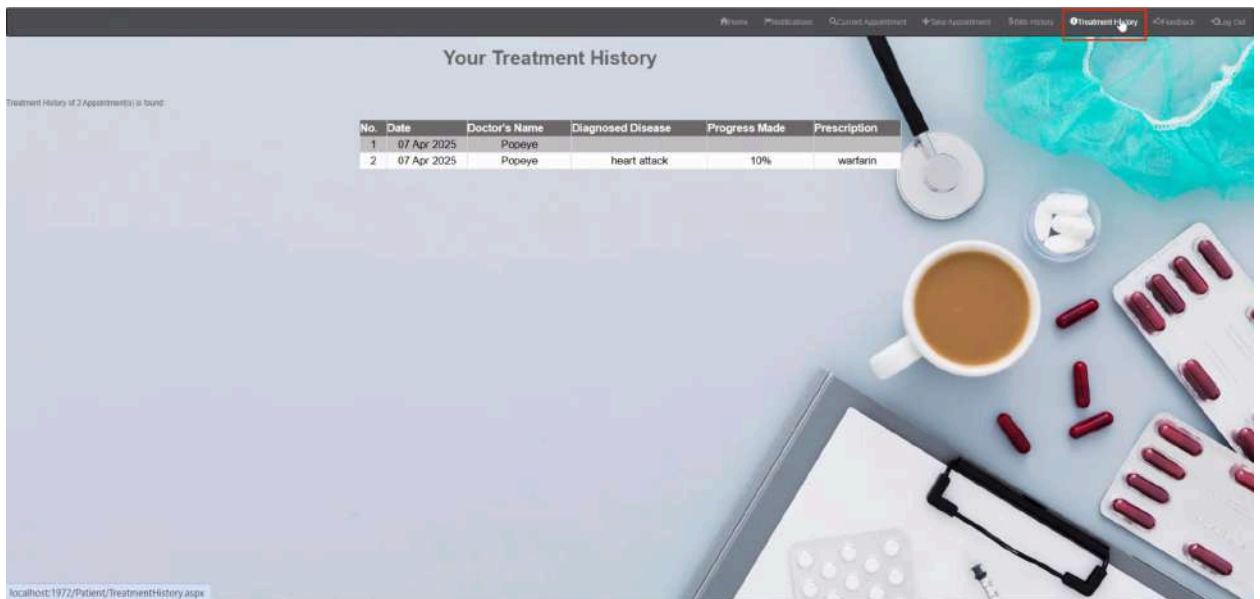


- **Patients** will be able to check the Bills generated on their name by clicking the “**Bills History**” button. The bills are generated based on the treatment they have requested for and also the prior treatments they have undergone.

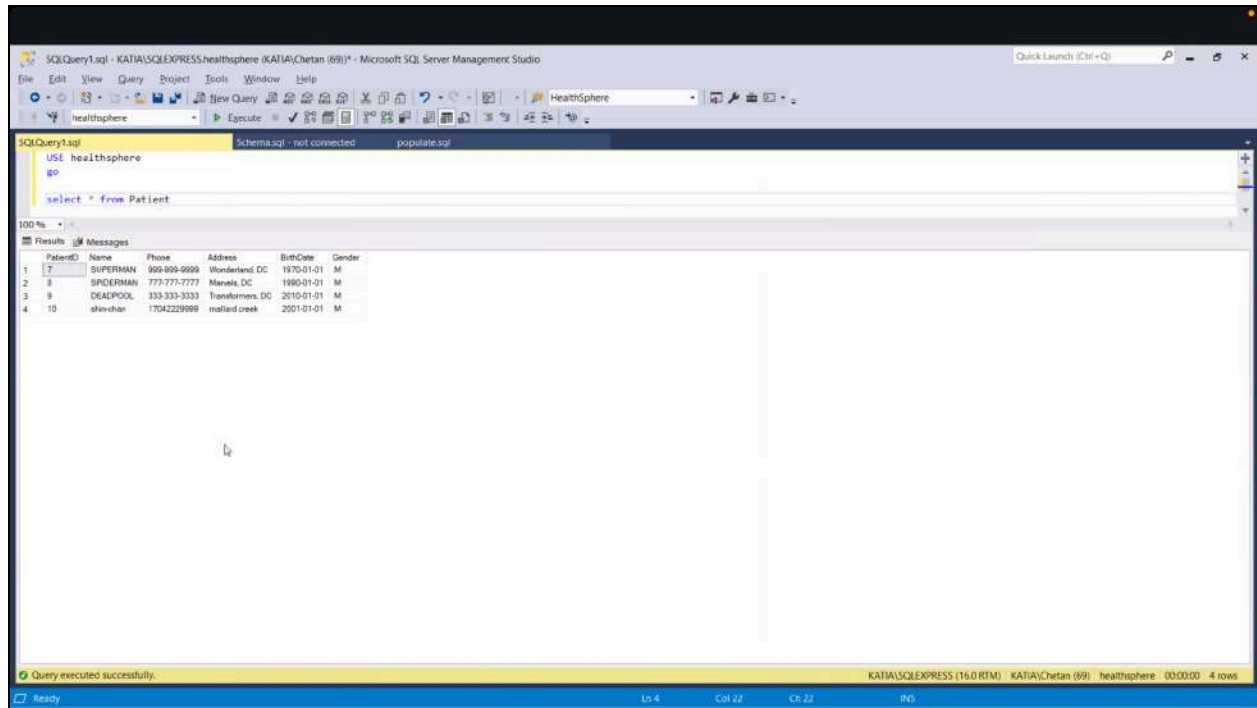




- **Patients** will be able to check their treatment history from their respective doctors by clicking on the “**Treatment history**” button. Patients will be aware of the medicines prescribed by the doctor, the progress rate of the patient’s case, as well as the diagnosed disease.

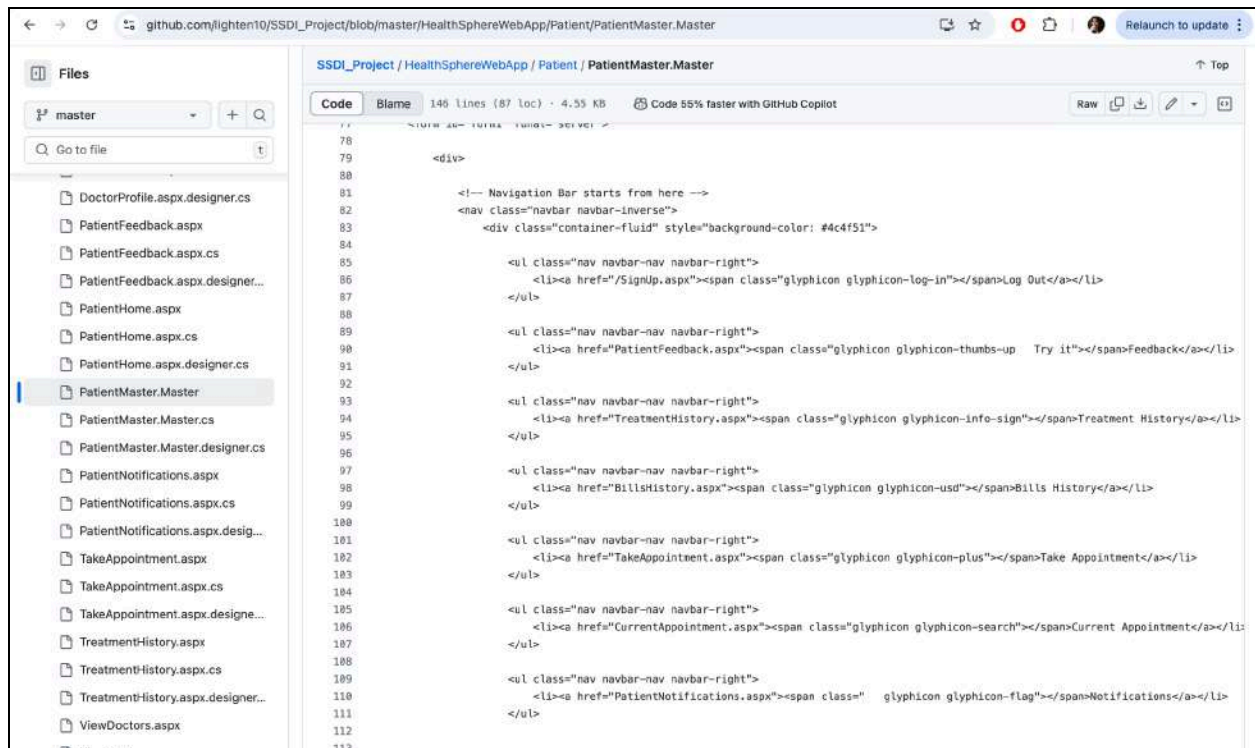


**Database Schema for the Patient record:**

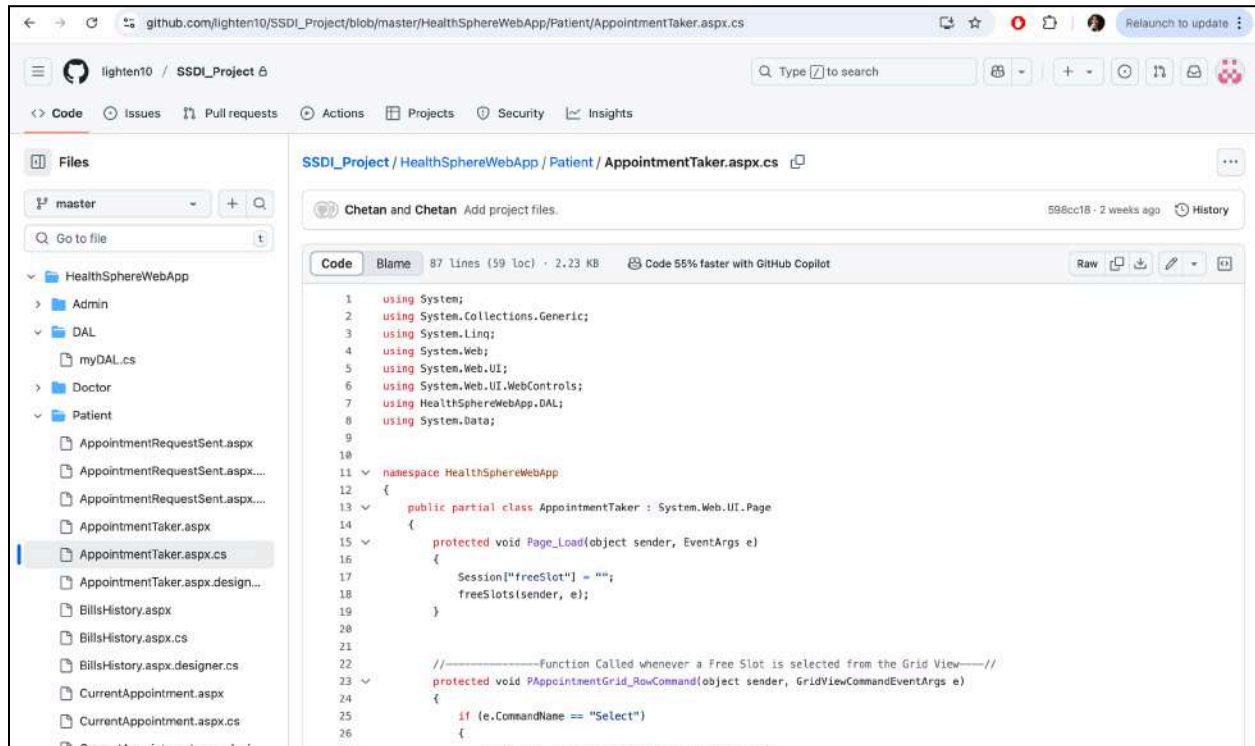


The shown screenshots depict a few of the code fragments of the main scenarios of the **Patient's** facilities.

## PatientMaster



## AppointmentTaker.aspx



## AppointmentRequestSent.aspx



github.com/IlighTen10/SSDI\_Project/blob/master/HealthSphereWebApp/Patient/AppointmentRequestSent.aspx.cs

SSDI\_Project / HealthSphereWebApp / Patient / AppointmentRequestSent.aspx.cs

Code Blame 62 lines (38 loc) · 1.23 KB Code 55% faster with GitHub Copilot

```
11 namespace HealthSphereWebApp
12 {
13     public partial class AppointmentNotificationSent : System.Web.UI.Page
14     {
15         protected void Page_Load(object sender, EventArgs e)
16         {
17         }
18     }
19
20 //-----Function1-----//
21
22 protected void sendAResult (object sender, EventArgs e)
23 {
24     myDAL objmyDAL = new myDAL();
25
26     string dID1 = (string)Session["dID"];
27
28     int dID = Convert.ToInt32(dID1);
29
30     int pID = (int)Session["idoriginal"];
31
32     string temp = (string)Session["freeSlot"];
33
34     int freeSlot = Convert.ToInt32(temp);
35
36     string mes = "";
37
38     int status = objmyDAL.insertAppointment(dID, pID, freeSlot, ref mes);
39
40     if (status == -1)
41     {
42     }
43 }
```

## BillsHistory.aspx

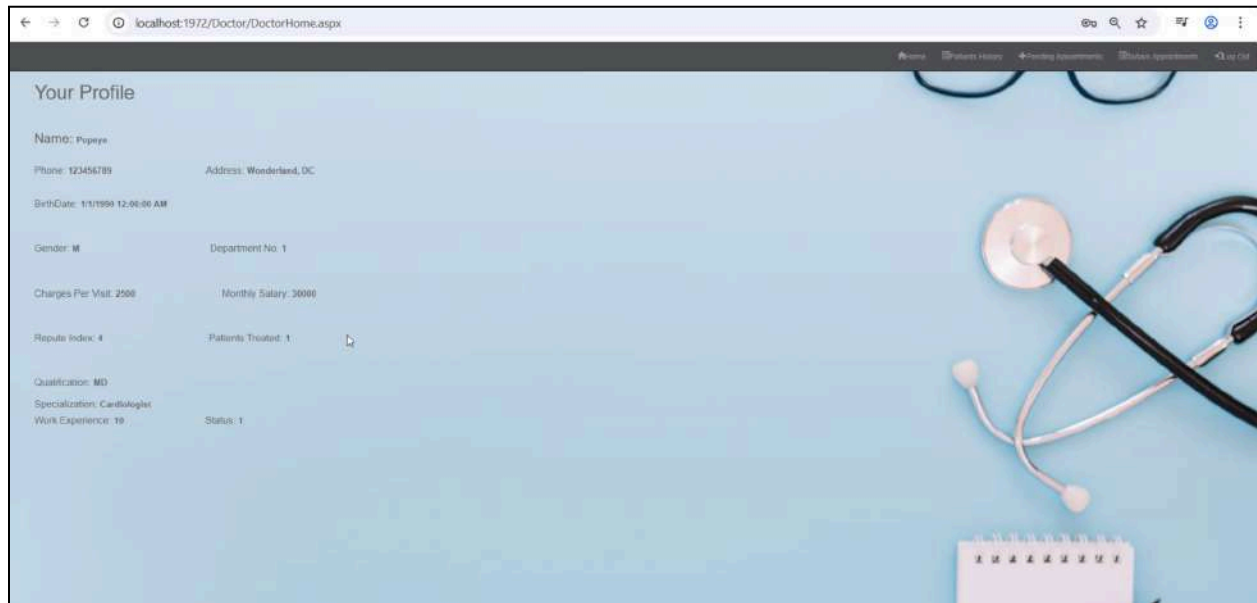
github.com/IlighTen10/SSDI\_Project/blob/master/HealthSphereWebApp/Patient/BillsHistory.aspx.cs

SSDI\_Project / HealthSphereWebApp / Patient / BillsHistory.aspx.cs

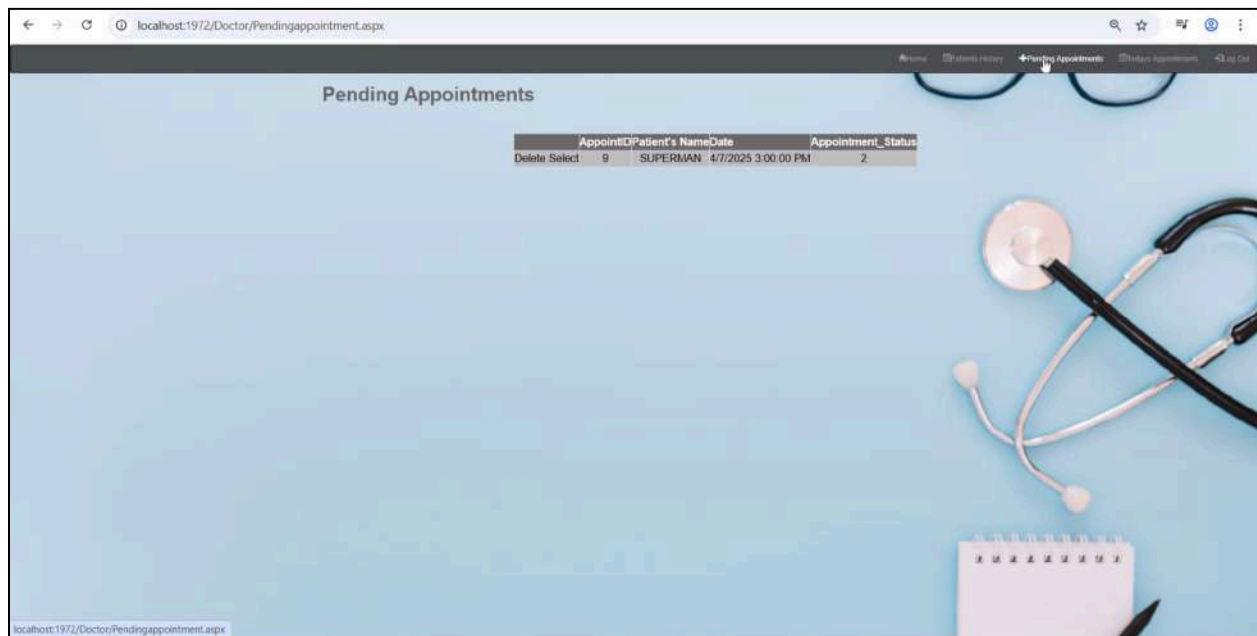
Code Blame 62 lines (42 loc) · 1.34 KB Code 55% faster with GitHub Copilot

```
11 namespace HealthSphereWebApp
12 {
13     public partial class BillsHistory : System.Web.UI.Page
14     {
15         billHistory(sender, e);
16     }
17
18 //-----Function1-----//
19
20 protected void billHistory(object sender, EventArgs e)
21 {
22     myDAL objmyDAL = new myDAL();
23
24     DataTable DT = new DataTable();
25
26     int id = (int)Session["idoriginal"];
27
28     int status = objmyDAL.getBillsHistory(id, ref DT);
29
30     if (status == -1)
31     {
32         BHistory.Text = "There was some error in retrieving the Patient's Bill History.";
33     }
34
35     else if (status == 0)
36     {
37         BHistory.Text = "There is currently no bill history of yours.";
38     }
39
40     else
41     {
42         BHistory.Text = status + " Bill(s) are found: ";
43         BHistoryGrid.DataSource = DT;
44         BHistoryGrid.DataBind();
45     }
46 }
```

- **After logging in, Doctor's** landing page will be his/her own profile page that can be viewed as below:



- **The doctor** will be able to see the pending appointments by clicking on the “Pending Appointments” button.



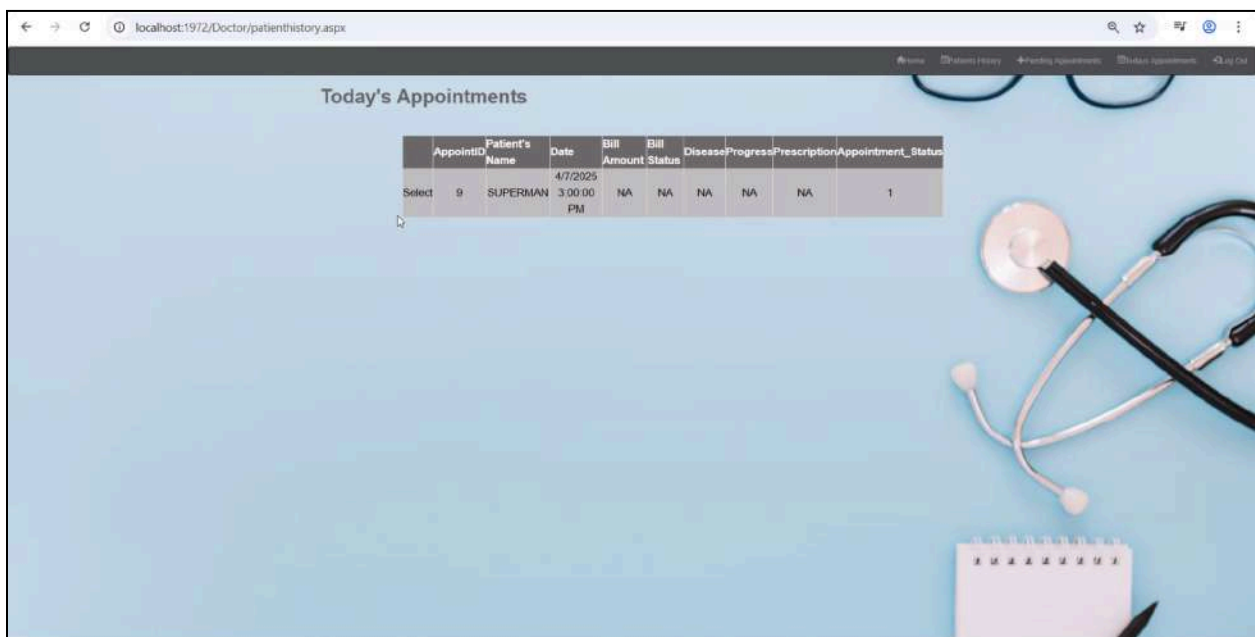
- **Doctors** will be able to see the patient's case history before beginning with the patient's treatment.



History of Treated Patients

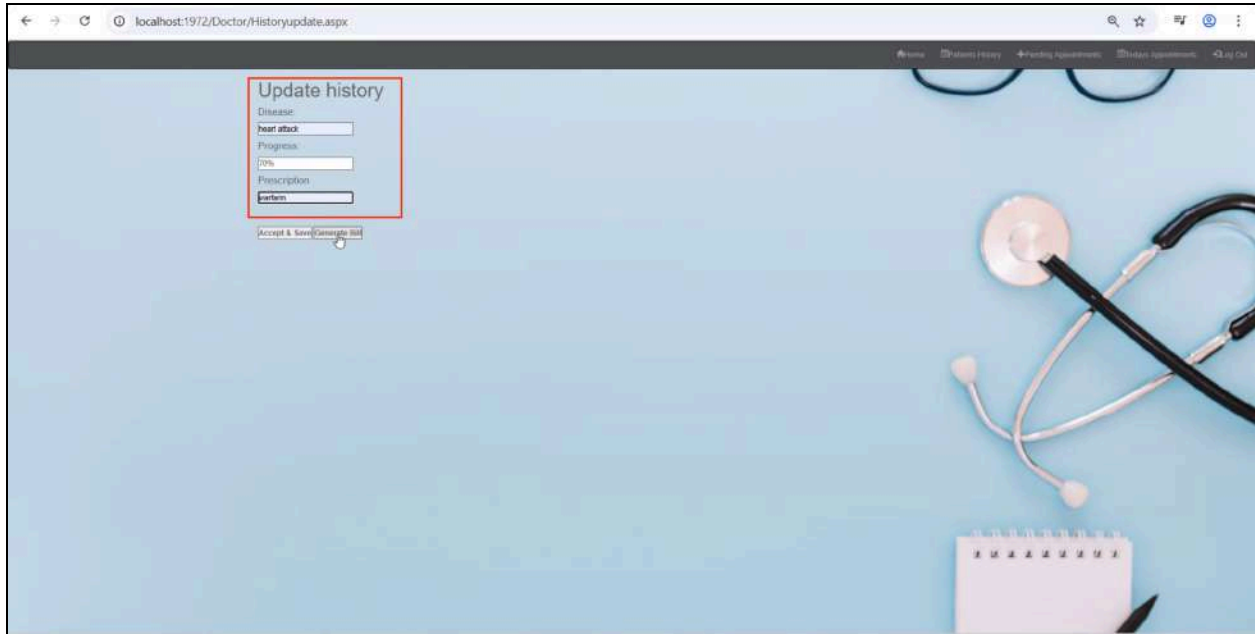
No.	Name	Disease	Progress	Prescription
1	SUPERMAN			
2	SUPERMAN	heart attack	10%	warfarin

- **Doctors** will be able to update the case history of a patient that the doctor is treating by clicking on “**Today’s appointments**”. The doctor can update the status of the progress of the treatment for the patient.



Today's Appointments

	AppointmentID	Patient's Name	Date	Bill Amount	Bill Status	Disease	Progress	Prescription	Appointment_Status
Select	9	SUPERMAN	4/7/2025 3:00:00 PM	NA	NA	NA	NA	NA	1



## Database Schema for the Doctor's details:

SQLQuery2.sql - KATIA\SQLEXPRESS.healthsphere (KATIA\Chetan (72)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

healthsphere

SQLQuery1.sql - KA - KATIA\Chetan (69) Schema.sql - not connected populate.sql - KAT - (KATIA\Chetan (66))

```
USE healthsphere
go
SELECT * FROM Doctor
```

100 %

DoctorID	Name	Phone	Address	BirthDate	Gender	DeptNo	Charges_Fw_Visit	MonthlySalary	ReputationIndex	Patients_Treated	Qualification	Specialization	Work_Experience	status
1	Peter	123456789	Wonderland, DC	1990-01-01	M	1	2500	30000	4	2	MD	Cardiologist	10	1
2	Pink Panther	123456789	Wonderland, DC	1990-01-01	M	2	2500	30000	4	0	MD	Orthopedic	10	1
3	Mickey Mouse	123456789	Wonderland, DC	1990-01-01	M	3	2500	30000	4	0	MD	General	10	1
4	Donald Duck	123456789	Wonderland, DC	1990-01-01	M	4	2500	30000	4	0	MD	Physio	10	1
5	Doramon	123456789	Wonderland, DC	1990-01-01	M	5	2500	30000	4	0	MD	Neurologist	10	0
6	Noddy	17942229999	inland creek	2003-01-01	M	3	700	75000	4	0	MBBS	ENT	3	1

Query executed successfully. KATIA\SQLEXPRESS (16.0 RTM) KATIA\Chetan (72) healthsphere 00:00:00 6 rows

Ready Lin 1 Col 1 RNS

The screenshots shown below depict a few of the code fragments of the main scenarios of the **Doctor's** facilities.

## DoctorMaster

github.com/flighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Doctor/DoctorMaster.Master

SSDI\_Project / HealthSphereWebApp / Doctor / DoctorMaster.Master

Code Blame 141 lines (83 loc) · 4.19 KB Code 55% faster with GitHub Copilot

```
78
79
80 <body>
81     <form id="form1" runat="server">
82
83         <div>
84
85             <!-- Navigation Bar starts from here -->
86             <nav class="navbar navbar-inverse">
87                 <div class="container-fluid" style="background-color: #4c4f51">
88
89                     <ul class="nav navbar-nav navbar-right">
90                         <li><a href="/signup.aspx"><span class="glyphicon glyphicon-log-in"></span>Log Out</a></li>
91                     </ul>
92
93                     <ul class="nav navbar-nav navbar-right">
94                         <li><a href="patienthistory.aspx"><span class="glyphicon glyphicon-list-alt"></span>Today's Appointments</a></li>
95                     </ul>
96
97                     <ul class="nav navbar-nav navbar-right">
98                         <li><a href="Pendingappointment.aspx"><span class="glyphicon glyphicon-plus"></span>Pending Appointments</a></li>
99                     </ul>
100
101                     <ul class="nav navbar-nav navbar-right">
102                         <li><a href="PreviousHistory.aspx"><span class="glyphicon glyphicon-list-alt"></span>Patients History</a></li>
103                     </ul>
104
105                     <ul class="nav navbar-nav navbar-right">
106                         <li><a href="doctorhome.aspx"><span class="glyphicon glyphicon-home"></span>Home</a></li>
107                     </ul>
108
109                 </div>
110             </nav>
111             <!-- Navigation Bar ends here -->
112
113
```

## PatientHistory.aspx

github.com/flighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Doctor/PatientHistory.aspx.cs

SSDI\_Project / HealthSphereWebApp / Doctor / PatientHistory.aspx.cs

Code Blame 52 lines (41 loc) · 1.43 KB Code 55% faster with GitHub Copilot

```
11 namespace HealthSphereWebApp
12
13 public partial class patienthistory : System.Web.UI.Page
14 {
15     protected void Page_Load(object sender, EventArgs e)
16     {
17         myDAL objmydal = new myDAL();
18         DataTable dt = new DataTable();
19         int found = 0;
20
21         int did = (int)Session["idoriginal"];
22
23         found = objmydal.search_patient_DAL(did, ref dt);
24         if (found != 1)
25         { Response.Write("<script>alert('There was some error');</script>"); }
26         else
27         {
28             patientsgrid.DataSource = dt;
29             patientsgrid.DataBind();
30         }
31     }
32
33     protected void patientsgrid_RowCommand(object sender, GridViewCommandEventArgs e)
34     {
35         if (e.CommandName == "Select")
36         {
37             Int16 num = Convert.ToInt16(e.CommandArgument);
38
39             string aId = patientsgrid.Rows[num].Cells[1].Text;
40
41             //retrieve appointmentid from that row (key-non editable)
42             int appointmentid = Convert.ToInt32(aId);
43
44             Session["appointid"] = appointmentid;
45             Response.Redirect("Historyupdate.aspx");
46         }
47     }
48 }
```

## PendingAppointment.aspx



github.com/lighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Doctor/PendingAppointment.aspx.cs

SSDI\_Project / HealthSphereWebApp / Doctor / PendingAppointment.aspx.cs

Code Blame 86 lines (58 loc) · 2.42 KB Code 55% faster with GitHub Copilot

```
11 namespace HealthSphereWebApp
12 {
13     public partial class PendingAppointment : System.Web.UI.Page
14     {
15         public void loadgrid()
16         {
17             // Retrieve the row that raised the event from the Rows
18             // collection of the GridView control.
19             GridViewRow row = pendingappointments.Rows[e.RowIndex];
20             //get appointmentid from that row
21             int appointmentid = Convert.ToInt32(row.Cells[1].Text.ToString());
22         }
23     }
24 }
25
26 protected void update_appointment(Object sender, System.Web.UI.WebControls.GridViewCommandEventArgs e)
27 {
28     if (e.CommandName == "Select")
29     {
30         // Retrieve the row that raised the event from the Rows
31         // collection of the GridView control.
32         GridViewRow row = pendingappointments.Rows[e.RowIndex];
33         //get appointmentid from that row (key-non editable)
34         int appointmentid = Convert.ToInt32(row.Cells[1].Text);
35         //retrieve appointmentid from that row (key-non editable)
36         int appointmentid = Convert.ToInt32(aId);
37         //=====updating the newly entered values in database=====
38         myDAL objmyDAL = new myDAL();
39         int result = objmyDAL.UpdateAppointment_DAL(appointmentid);
40         //reload the page=====
41         pendingappointments.EditIndex = -1;
42         loadgrid();
43     }
44 }
45
46 protected void Delete_appointment(Object sender, GridViewDeleteEventArgs e)
47 {
48     // Retrieve the row that raised the event from the Rows
49     // collection of the GridView control.
50     GridViewRow row = pendingappointments.Rows[e.RowIndex];
51     //get appointmentid from that row
52     int appointmentid = Convert.ToInt32(row.Cells[1].Text.ToString());
53     //=====updating the newly entered values in database=====
54     myDAL objmyDAL = new myDAL();
55     int result = objmyDAL.DeleteAppointment_DAL(appointmentid);
56     //reload the page=====
57     pendingappointments.EditIndex = -1;
58     loadgrid();
59 }
60
61 }
```

## HistoryUpdate.aspx

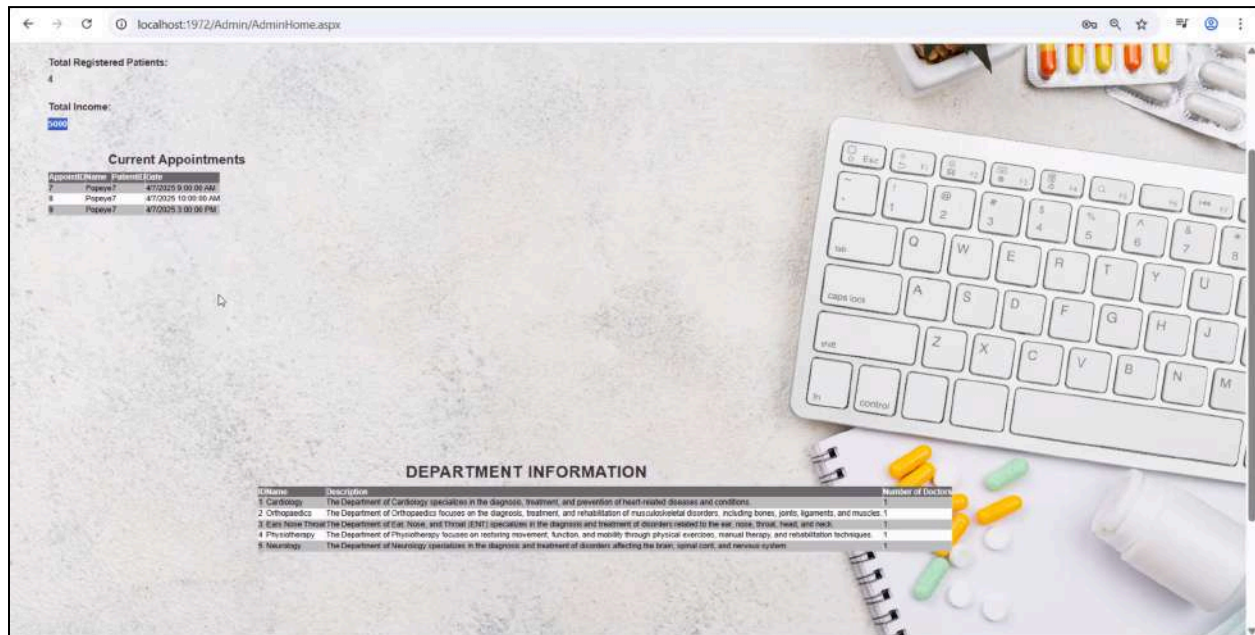
github.com/lighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Doctor/HistoryUpdate.aspx.cs

SSDI\_Project / HealthSphereWebApp / Doctor / HistoryUpdate.aspx.cs

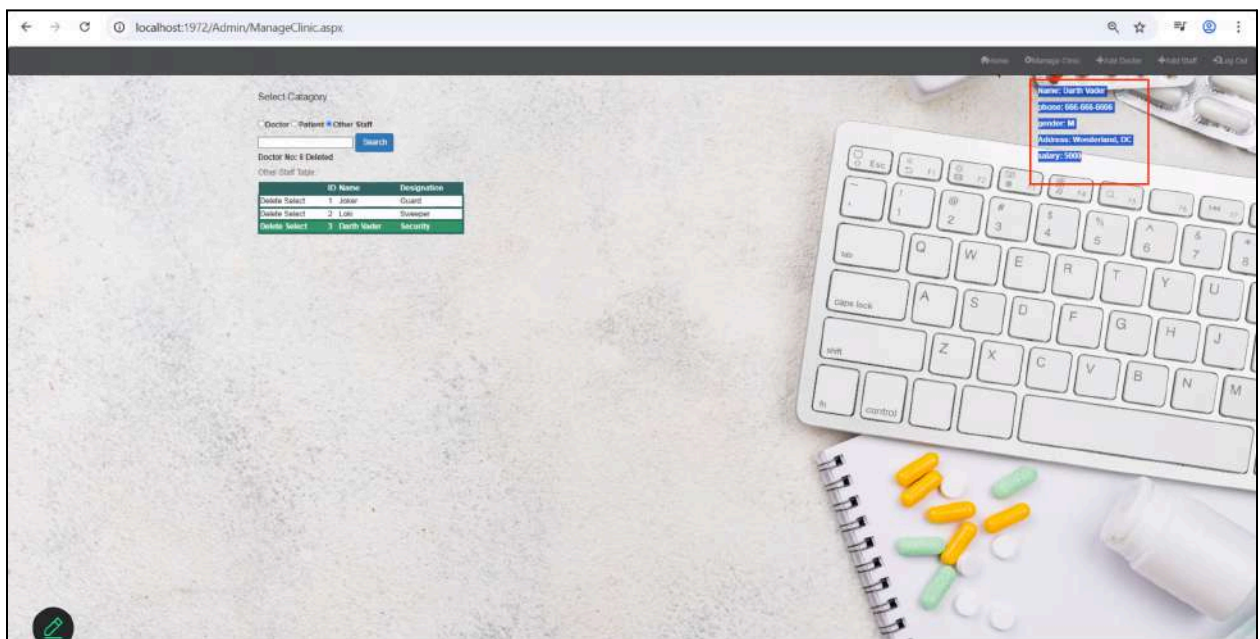
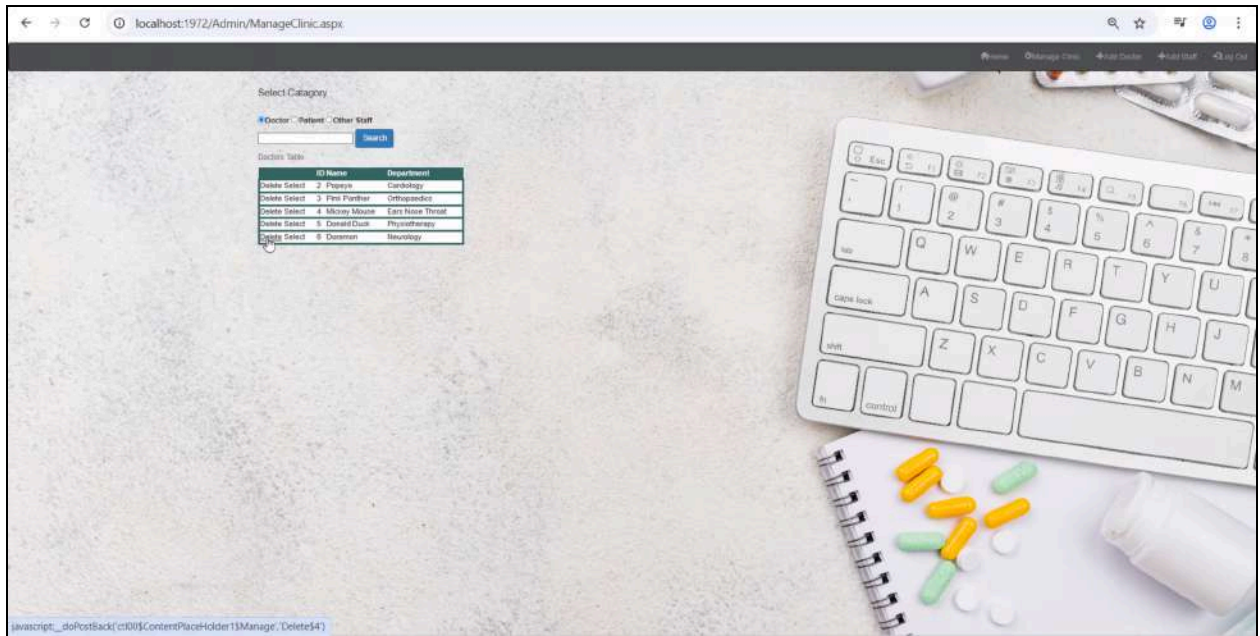
Code Blame 47 lines (38 loc) · 1.22 KB Code 55% faster with GitHub Copilot

```
10 namespace HealthSphereWebApp
11 {
12     public partial class Historyupdate : System.Web.UI.Page
13     {
14         protected void Page_Load(object sender, EventArgs e)
15         {
16         }
17     }
18
19     public void saveindatabase(object sender, EventArgs e)
20     {
21         myDAL objmyDAL = new myDAL();
22         int found;
23         int did = (int)Session["Idoriginal"];
24         string disease= Disease.Text;
25         string progres = progress.Text;
26         string prescrip = Prescription.Text;
27
28         int appid = (int)Session["appointmentid"];
29
30         found = objmyDAL.update_prescription_DAL(did,appid,disease,progres,prescrip);
31
32         if (found != 1)
33         { Response.Write("<script>alert('There was some error!');</script>"); }
34         else
35         {
36             { Response.Write("<script>alert('Information Successfully Updated');</script>"); }
37         }
38     }
39
40     public void generate_bill(object sender, EventArgs e)
41     {
42         Response.Redirect("bill.aspx");
43     }
44 }
45 }
```

- After logging in, the administrator personnel's landing page will be as per shown in the screenshot below. The administrator will be able to see the number of doctors in each department, total number of patients, total income generated and number of weekly appointments.

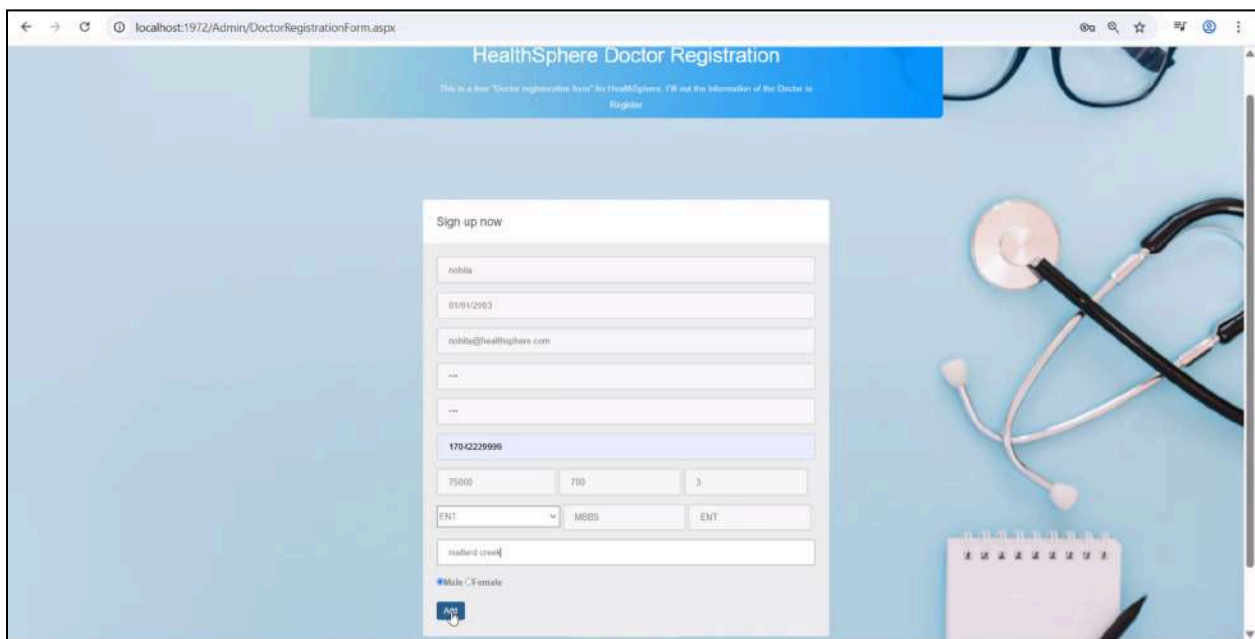
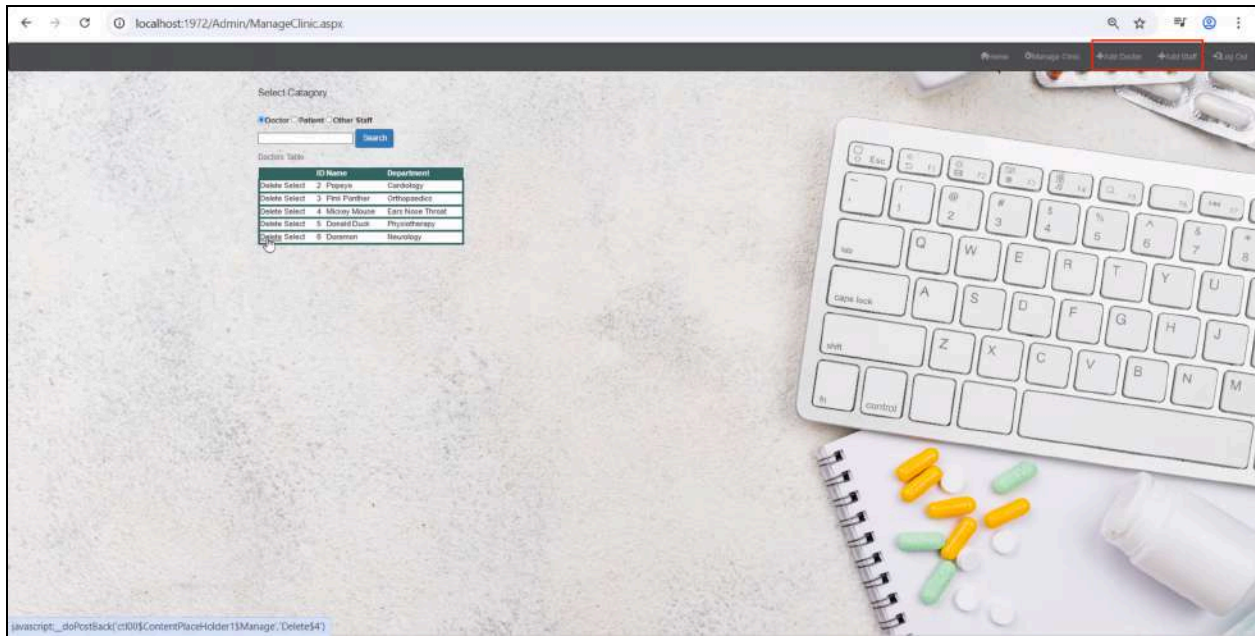


- The Administrator will be able to see the details of all doctors, patients and other staff by clicking on “Manage Clinic”. The administrator will be able to add/delete any doctor/patient/staff.



- The administrator will be able to add a new doctor/staff by clicking on the **Add doctor/staff** button.





The screenshots shown below depict a few of the code fragments of the main scenarios of the **Administrator's** facilities.

**AdminMaster:**

github.com/lylighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Admin/Admin.Master

SSDI\_Project / HealthSphereWebApp / Admin / Admin.Master

Code Blame 145 lines (81 loc) · 3.97 KB Code 55% faster with GitHub Copilot

```
78
79
80 <title>Home</title>
81 <asp:ContentPlaceHolder ID="head" runat="server">
82 </asp:ContentPlaceHolder>
83 </head>
84
85
86 <body>
87
88
89 <div>
90
91
92 <!-- Navigation Bar starts from here -->
93 <nav class="navbar navbar-inverse">
94 <div class="container-fluid" style="background-color: #4c4f51;">
95
96 <ul class="nav navbar-nav navbar-right">
97 <li><a href="/SignUp.aspx"><span class="glyphicon glyphicon-log-in"></span>Log Out</a></li>
98 </ul>
99
100 <ul class="nav navbar-nav navbar-right">
101 <li><a href="AddStaff.aspx"><span class="glyphicon glyphicon-plus"></span>Add Staff</a></li>
102 </ul>
103
104 <ul class="nav navbar-nav navbar-right">
105 <li><a href="DoctorRegistrationForm.aspx"><span class="glyphicon glyphicon-plus"></span>Add Doctor</a></li>
106 </ul>
107
108
109 <ul class="nav navbar-nav navbar-right">
110 <li><a href="ManageClinic.aspx"><span class="glyphicon glyphicon-cog"></span>Manage Clinic</a></li>
111 </ul>
112
113 <ul class="nav navbar-nav navbar-right">
```

## AddStaff.aspx

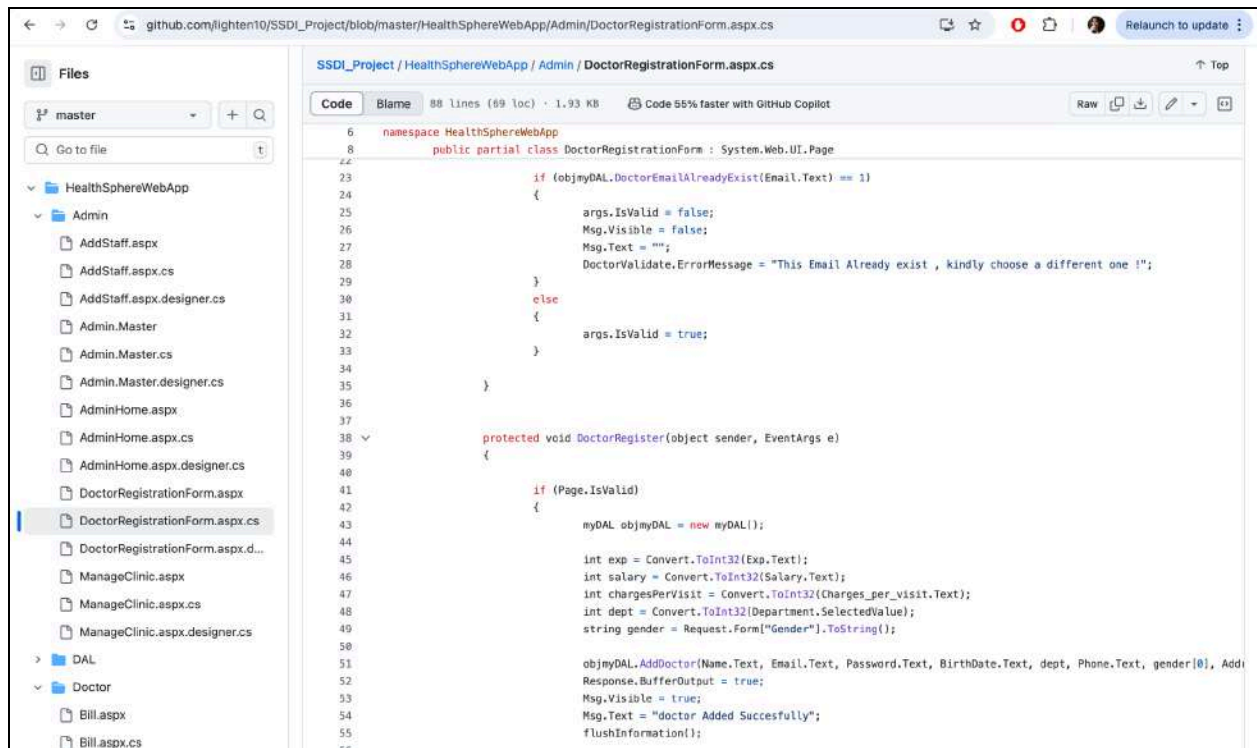
github.com/lylighten10/SSDI\_Project/blob/master/HealthSphereWebApp/Admin/AddStaff.aspx.cs

SSDI\_Project / HealthSphereWebApp / Admin / AddStaff.aspx.cs

Code Blame 50 lines (42 loc) · 1.03 KB Code 55% faster with GitHub Copilot

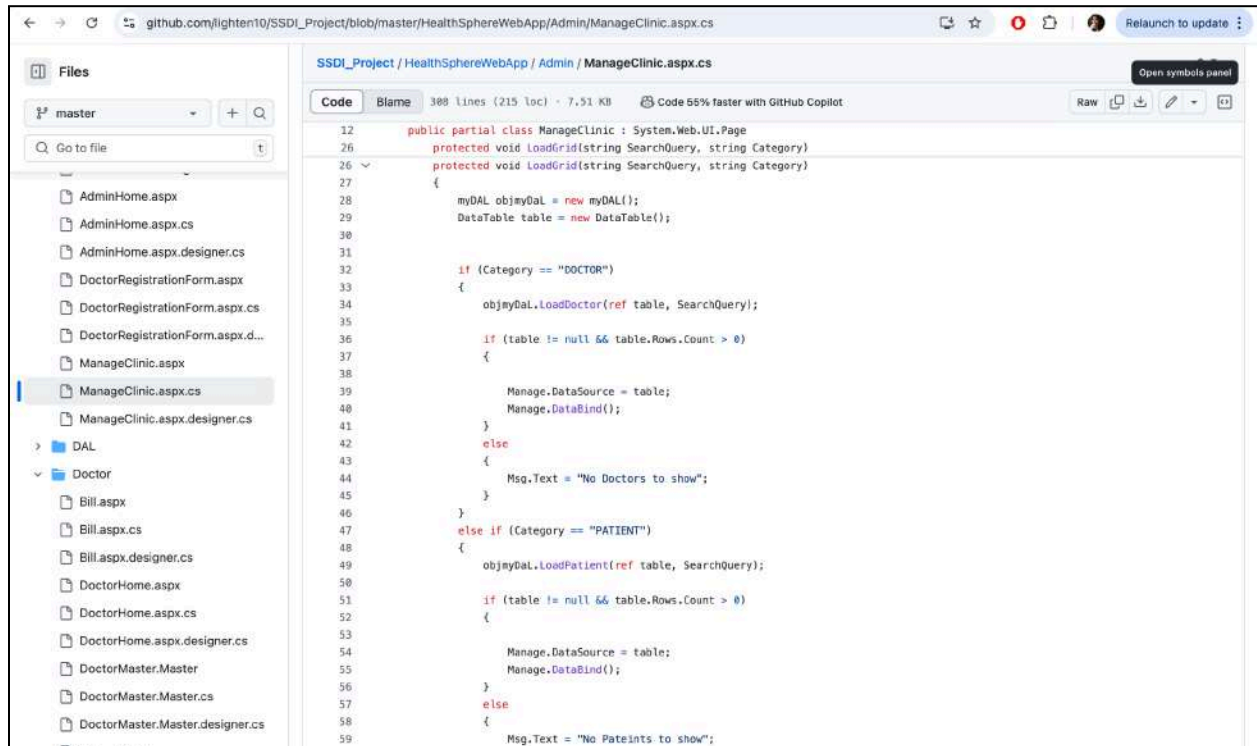
```
9 namespace HealthSphereWebApp
10 {
11     public partial class AddStaff : System.Web.UI.Page
12     {
13         protected void Page_Load(object sender, EventArgs e)
14         {
15         }
16     }
17
18     protected void StaffRegister(object sender, EventArgs e)
19     {
20         if (Page.IsValid)
21         {
22             myDAL objmyDAL = new myDAL();
23
24             int salary = Convert.ToInt32(Salary.Text);
25             string gender = Request.Form["Gender"].ToString();
26
27             if (objmyDAL.AddStaff(Name.Text, BirthDate.Text, Phone.Text, gender[0], Address.Text, salary, Qual.Text,
28             {
29                 Response.BufferOutput = true;
30                 Msg.Visible = true;
31                 Msg.Text = Designation.Text + " Added Successfully";
32                 flushInformation();
33             }
34         }
35     }
36
37     protected void flushInformation()
38     {
39         Name.Text = "";
40         BirthDate.Text = "";
41         Phone.Text = "";
42         Address.Text = "";
43         Salary.Text = "";
44         Qual.Text = "";
45         Designation.Text = "";
```

## DoctorRegistrationForm.aspx



```
6 namespace HealthSphereWebApp
7 {
8     public partial class DoctorRegistrationForm : System.Web.UI.Page
9     {
10         if (objmyDAL.DoctorEmailAlreadyExist(Email.Text) == 1)
11         {
12             args.IsValid = false;
13             Msg.Visible = false;
14             Msg.Text = "";
15             DoctorValidate.ErrorMessage = "This Email Already exist , kindly choose a different one !";
16         }
17         else
18         {
19             args.IsValid = true;
20         }
21     }
22
23     protected void DoctorRegister(object sender, EventArgs e)
24     {
25         if (Page.IsValid)
26         {
27             myDAL objmyDAL = new myDAL();
28
29             int exp = Convert.ToInt32(Exp.Text);
30             int salary = Convert.ToInt32(Salary.Text);
31             int chargesPerVisit = Convert.ToInt32(Charges_per_visit.Text);
32             int dept = Convert.ToInt32(Department.SelectedValue);
33             string gender = Request.Form["Gender"].ToString();
34
35             objmyDAL.AddDoctor(Name.Text, Email.Text, Password.Text, BirthDate.Text, dept, Phone.Text, gender[0], Add
36             Response.BufferOutput = true;
37             Msg.Visible = true;
38             Msg.Text = "doctor Added Successfully";
39             flushInformation();
40         }
41     }
42 }
```

## ManageClinic.aspx

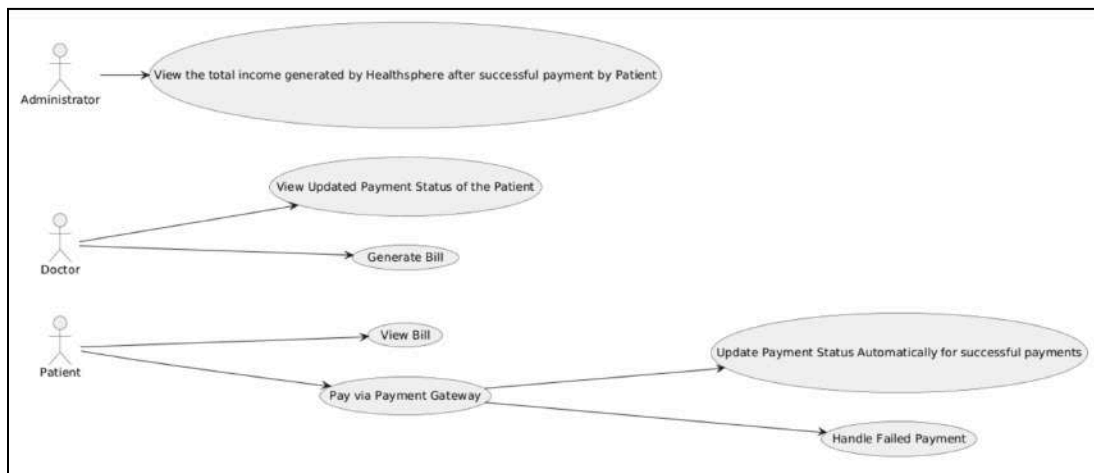


```
12 public partial class ManageClinic : System.Web.UI.Page
13 {
14     protected void LoadGrid(string SearchQuery, string Category)
15     {
16         myDAL objmyDAL = new myDAL();
17         DataTable table = new DataTable();
18
19         if (Category == "DOCTOR")
20         {
21             objmyDAL.LoadDoctor(ref table, SearchQuery);
22
23             if (table != null && table.Rows.Count > 0)
24             {
25                 Manage.DataSource = table;
26                 Manage.DataBind();
27             }
28             else
29             {
30                 Msg.Text = "No Doctors to show";
31             }
32         }
33         else if (Category == "PATIENT")
34         {
35             objmyDAL.LoadPatient(ref table, SearchQuery);
36
37             if (table != null && table.Rows.Count > 0)
38             {
39                 Manage.DataSource = table;
40                 Manage.DataBind();
41             }
42             else
43             {
44                 Msg.Text = "No Patients to show";
45             }
46         }
47     }
48 }
```

## Walkthrough of 2 additional scenarios (can be implemented in future scope)

- **Payment gateway** can be included as a part of the Health sphere in future scope, which would be accessible by the Administrator and Patients. Now, payment is done manually with cash/debit/credit cards, but there is no such provision on the website. With the help of a payment gateway, the process then starts with the treatment bill that pops up in the patient portal, the patient can pay the amount through online credit/debit card mode, and the payment status of the treatment updates to “paid” automatically in case of successful payments. Now, the doctor manually updates the status as paid or unpaid after the patient pays offline. Also, once the patient successfully pays the bill, the administrator can see the updated total income generated by Healthsphere.

Small use case diagram to demonstrate the scenario:



- Now, the Doctor has the provision to update the case history of the patient, which can include the necessary vitals of the patient as well. But, in future scope, **the latest vitals of the patient can be demonstrated in the form of a visual representation, say bar graph/pie chart** showing how well the patient has progressed from earlier or has deteriorated. The visual representation should be accessible in both the patient’s portal and the doctor’s portal treating the patient.

