

Project Modules Description

Project name: Doctor's Appointment

User Interface (UI): HTML5, CSS3, Flex Box, Grid Layout.

Client-Side Scripting: JavaScript, jQuery.

Back-End Technologies: Spring Boot, Spring Security (Role based access), Custom Exception Handler, Hibernate/JPA, Thymeleaf.

Database: MySQL.

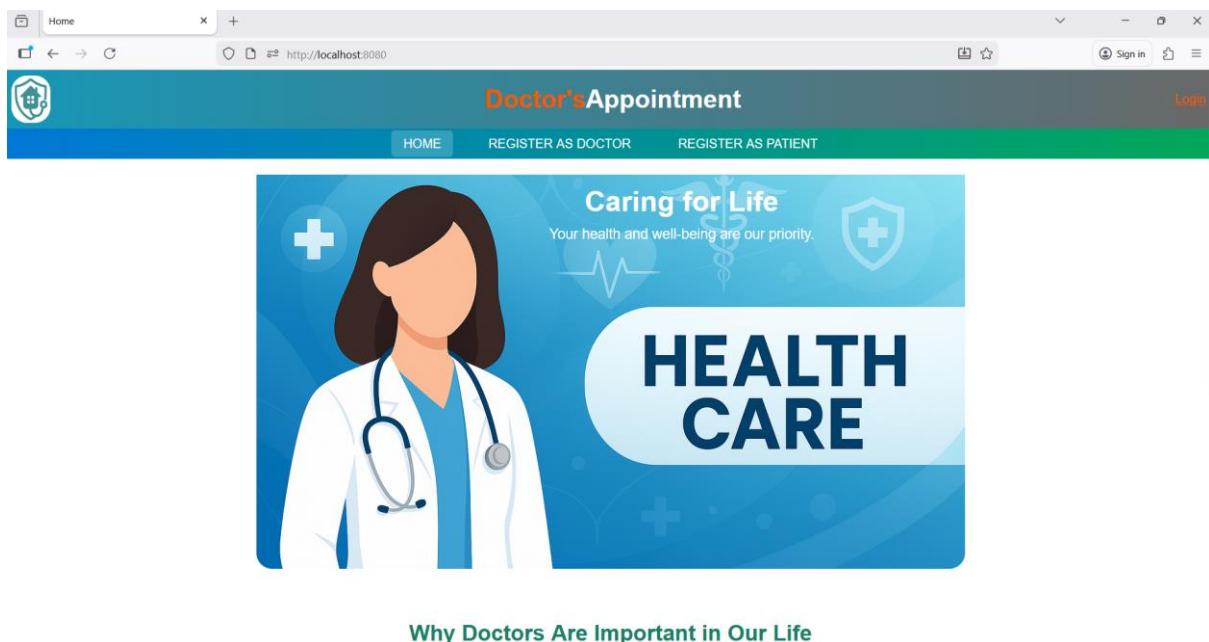
Integrated Development Environment (IDE): Eclipse J2EE.

Browsers Used for Testing: Chrome, Firefox, Edge.

Project Description

The Doctor's Appointment System is a web-based platform designed to streamline and digitize the process of booking medical appointments. It enables patients to easily search and schedule consultations with verified doctors online without waiting in long queues. Doctors can manage their profiles, clinic timings, and appointments efficiently through the system. The project ensures secure user authentication and provides seamless interaction between patients and healthcare professionals.

Home

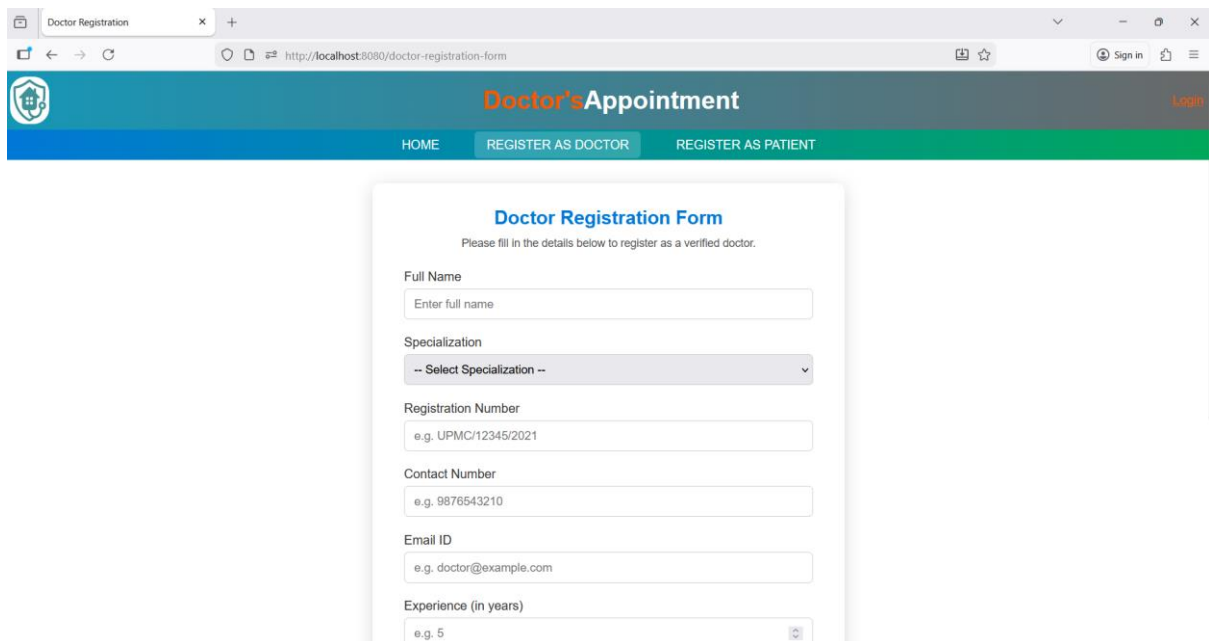


The **Home** page provides an overview of the platform and introduces users to the benefits of digital healthcare connection.

It highlights the importance of doctors in our lives, showcases key features of the application, and guides users to take the next step—either registering as a doctor or booking appointments as a patient.

The home page acts as the central hub for navigation and awareness.

Register as Doctor



The screenshot shows a web browser window with the URL `http://localhost:8080/doctor-registration-form`. The page header features a logo on the left, the title "Doctor's Appointment" in the center, and a "Login" link on the right. Below the header is a navigation bar with three options: "HOME", "REGISTER AS DOCTOR" (which is highlighted), and "REGISTER AS PATIENT". The main content area displays a "Doctor Registration Form" with the following fields:

- Full Name:** A text input field with the placeholder "Enter full name".
- Specialization:** A dropdown menu with the placeholder "-- Select Specialization --".
- Registration Number:** A text input field with the placeholder "e.g. UPMC/12345/2021".
- Contact Number:** A text input field with the placeholder "e.g. 9876543210".
- Email ID:** A text input field with the placeholder "e.g. doctor@example.com".
- Experience (in years):** A text input field with the placeholder "e.g. 5".

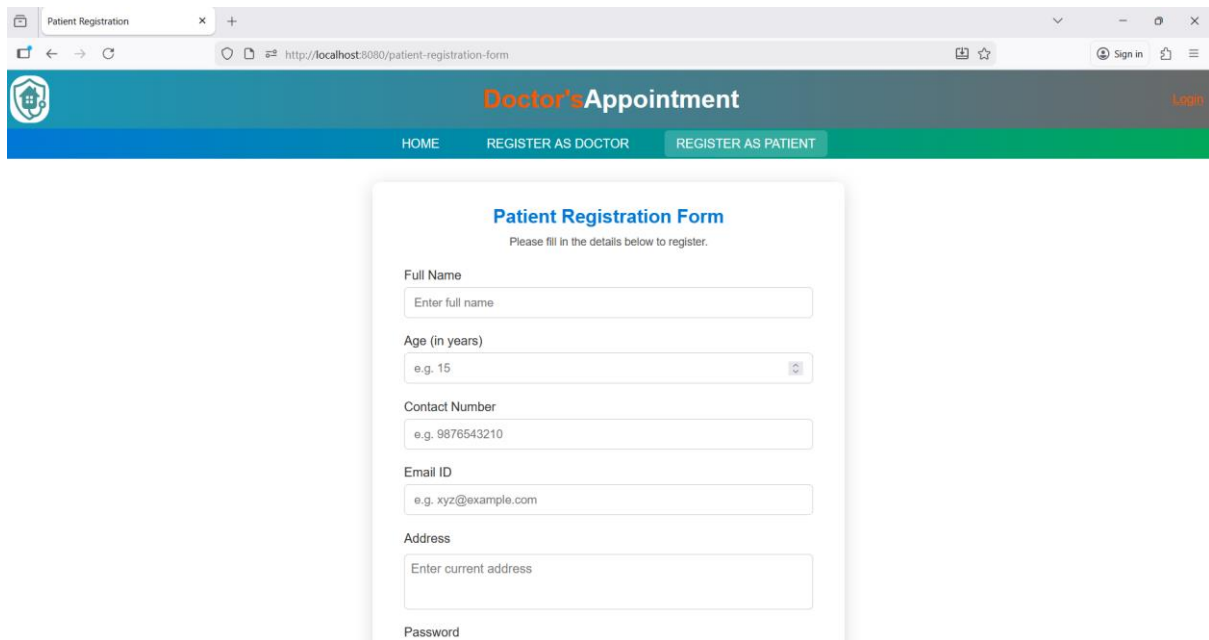
The **Register as Doctor** link allows healthcare professionals to join the platform and offer their medical services online.

Doctors can create a verified profile, upload qualifications, specify specialization, clinic details, and appointment timings.

Once approved by the admin, doctors gain access to manage appointments, view patient records, and track consultation schedules.

This feature promotes digital practice management and boosts patient outreach.

Register as Patient



The screenshot shows a web browser window with the URL `http://localhost:8080/patient-registration-form`. The page title is "Patient Registration" and the browser tab is "Patient Registration". The website header is "Doctor's Appointment" with a logo on the left and a "Login" link on the right. The navigation bar has three items: "HOME", "REGISTER AS DOCTOR", and "REGISTER AS PATIENT". The main content area is a "Patient Registration Form" with the following fields:

- Full Name: Enter full name
- Age (in years): e.g. 15
- Contact Number: e.g. 9876543210
- Email ID: e.g. xyz@example.com
- Address: Enter current address
- Password: (field is partially visible)

The **Register as Patient** link is designed for individuals who want to book medical consultations quickly and safely.

After registration, patients can browse doctor profiles, check clinic availability, select appointment dates, and receive reminders.

The system ensures a hassle-free appointment process—reducing waiting time and enabling access to trusted healthcare from anywhere.

Patients also get secure login access to view and manage their booked appointments.

This project has three modules:

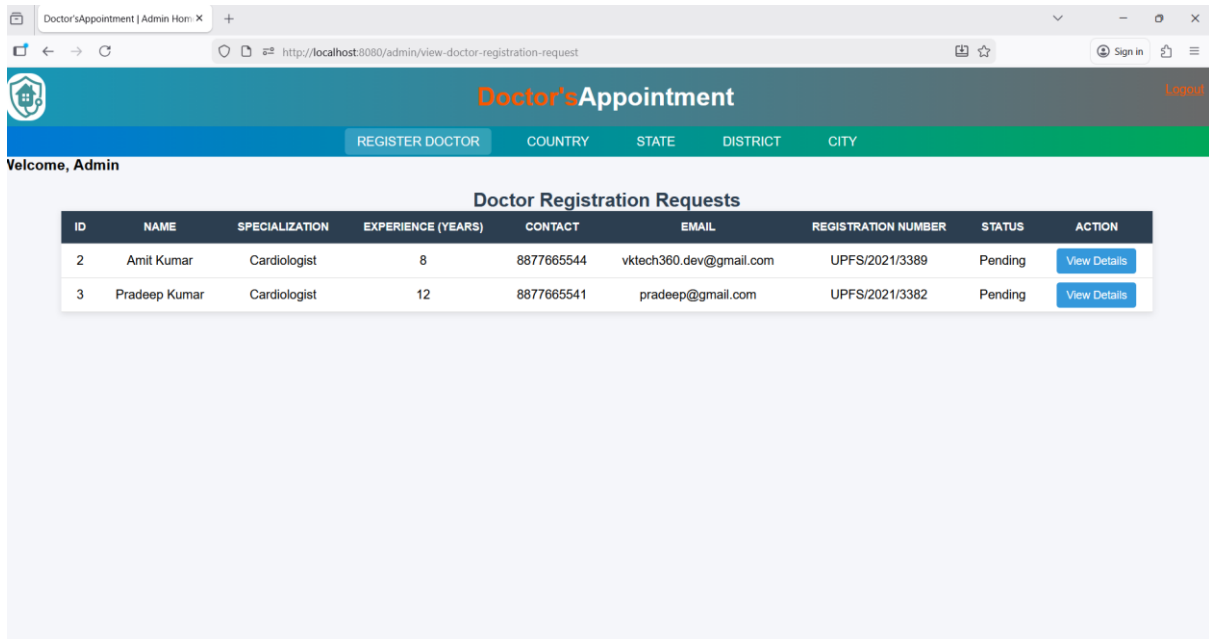
1. Admin Module
2. Doctor Module
3. Patient Module

1. Admin Module

The Admin Module manages the overall system including, doctor verification and approvals, and application security.

Admins oversee clinic schedules, appointment records, and ensure smooth and compliant healthcare operations across the platform.

Register Doctor

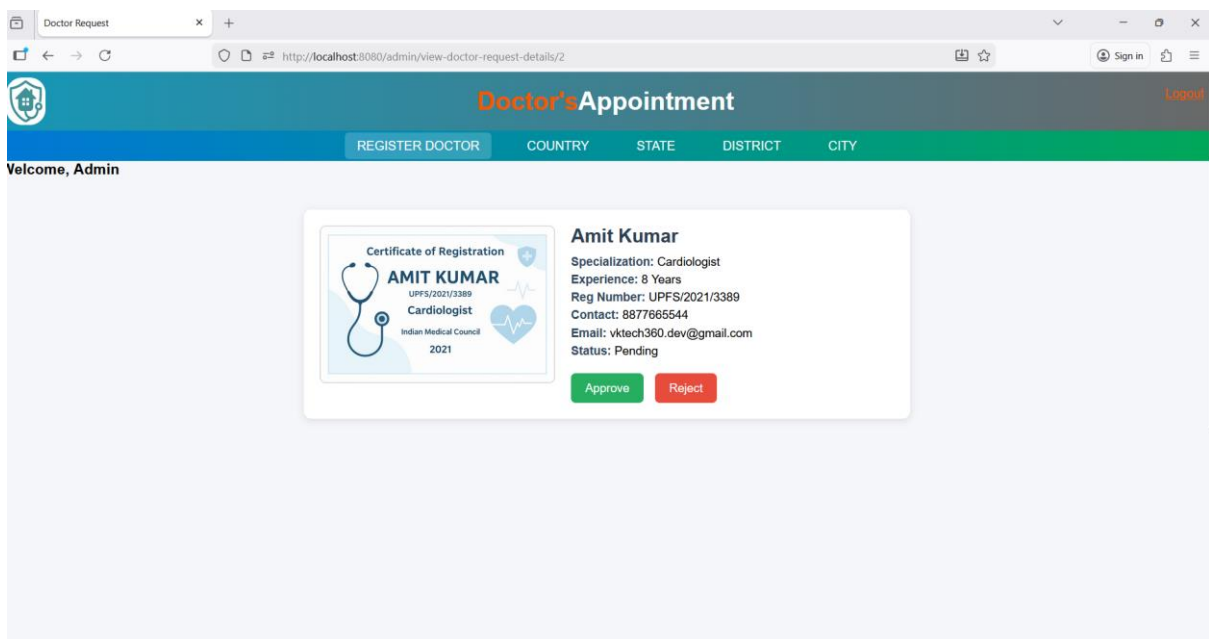


The screenshot shows the admin interface for 'Doctor's Appointment'. The page title is 'Doctor's Appointment' and the user is logged in as 'Admin'. The main content area is titled 'Doctor Registration Requests' and displays a table with the following data:

ID	NAME	SPECIALIZATION	EXPERIENCE (YEARS)	CONTACT	EMAIL	REGISTRATION NUMBER	STATUS	ACTION
2	Amit Kumar	Cardiologist	8	8877665544	vktech360.dev@gmail.com	UPFS/2021/3389	Pending	View Details
3	Pradeep Kumar	Cardiologist	12	8877665541	pradeep@gmail.com	UPFS/2021/3382	Pending	View Details

The *Register Doctor* section displays all new doctor registration requests submitted on the platform.

Admin can review each request in detail by clicking the **View Details** button, which shows doctor qualifications, experience, certificate, and contact information.



The screenshot shows the 'View Details' page for a doctor registration request. The page title is 'Doctor Request' and the user is logged in as 'Admin'. The main content area displays the following information:

Certificate of Registration

AMIT KUMAR
UPFS/2021/3389
Cardiologist
Indian Medical Council
2021

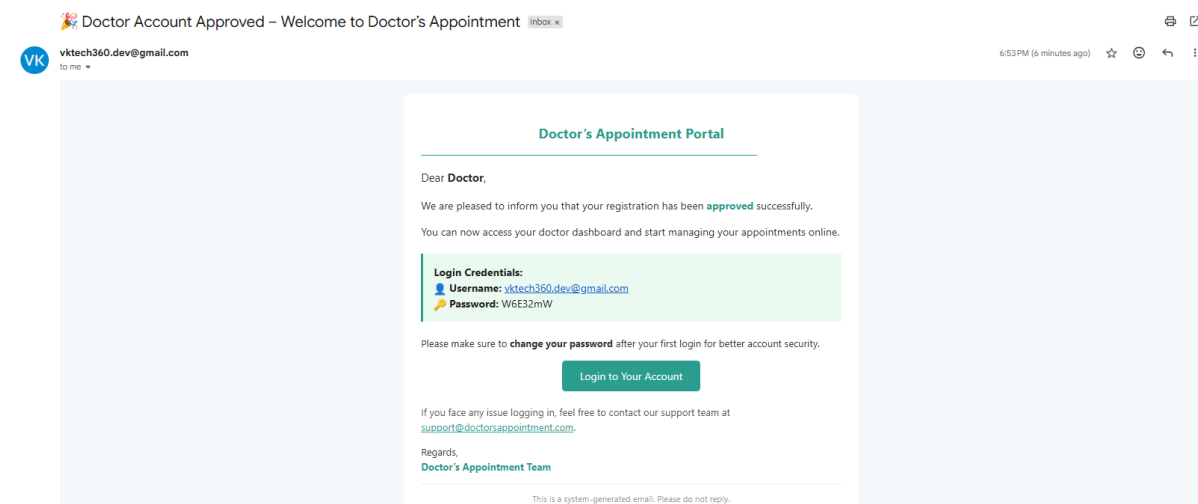
Amit Kumar
Specialization: Cardiologist
Experience: 8 Years
Reg Number: UPFS/2021/3389
Contact: 8877665544
Email: vktech360.dev@gmail.com
Status: Pending

[Approve](#) [Reject](#)

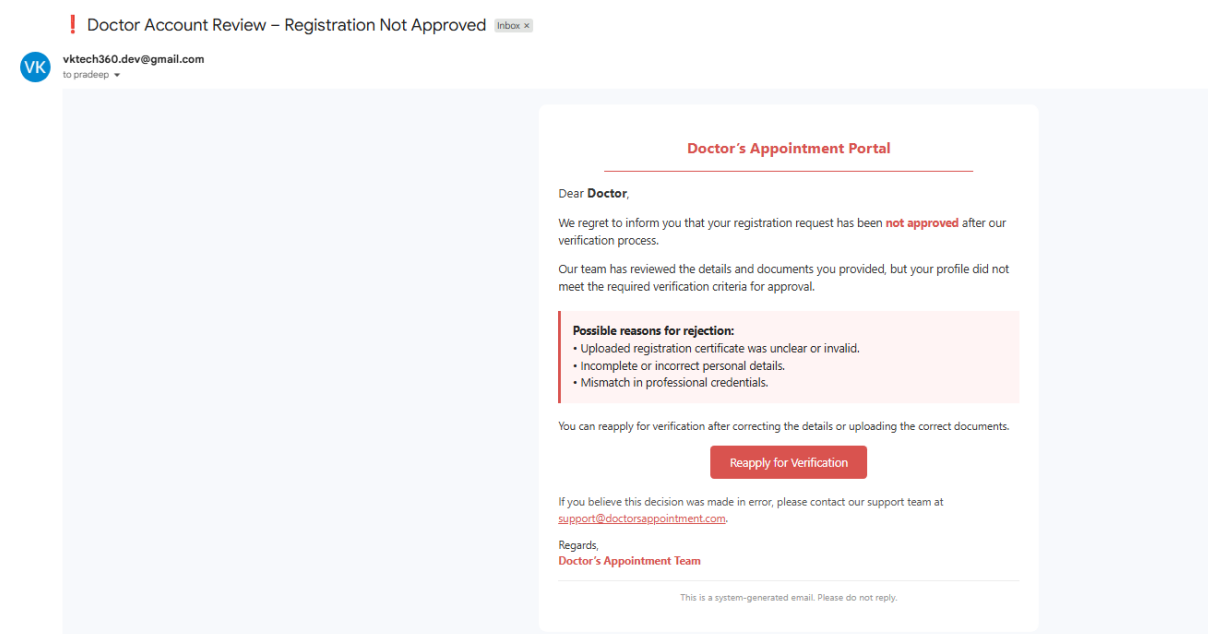
Based on verification, the Admin can **Approve** valid applications to activate the doctor's account or **Reject** applications that do not meet eligibility criteria.

After that a system generate mail will be sent to the doctor to inform him about 'Approval' or 'Rejection' of the registration request. If request is approved then mail contains user login credentials also.

Approval mail

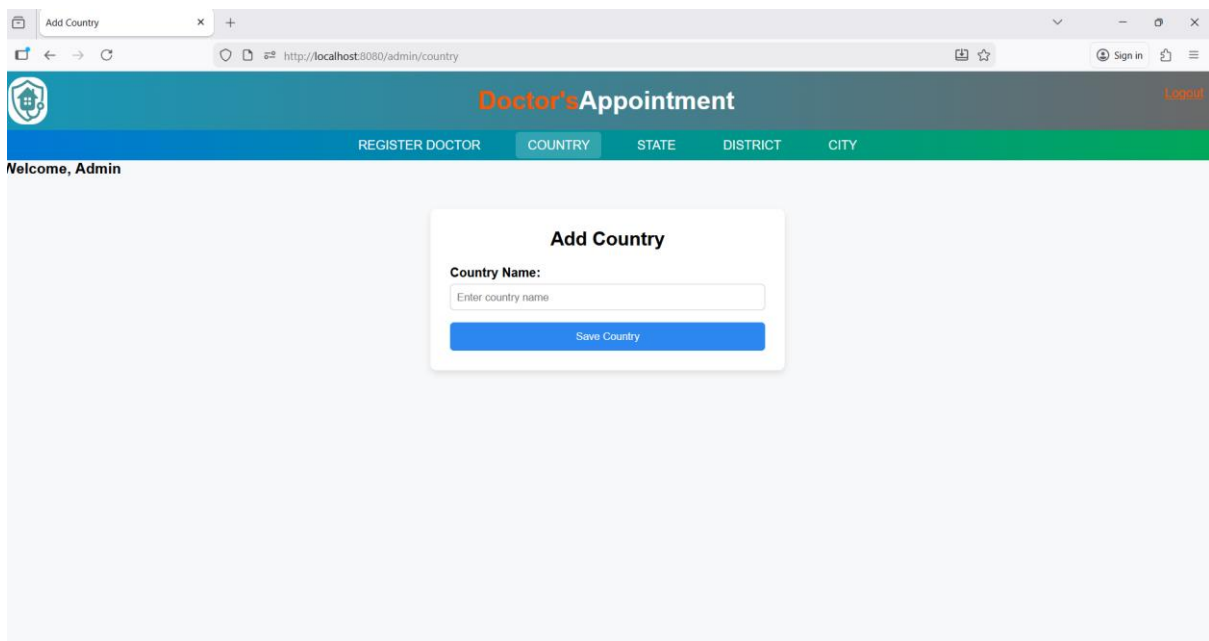


Rejection mail



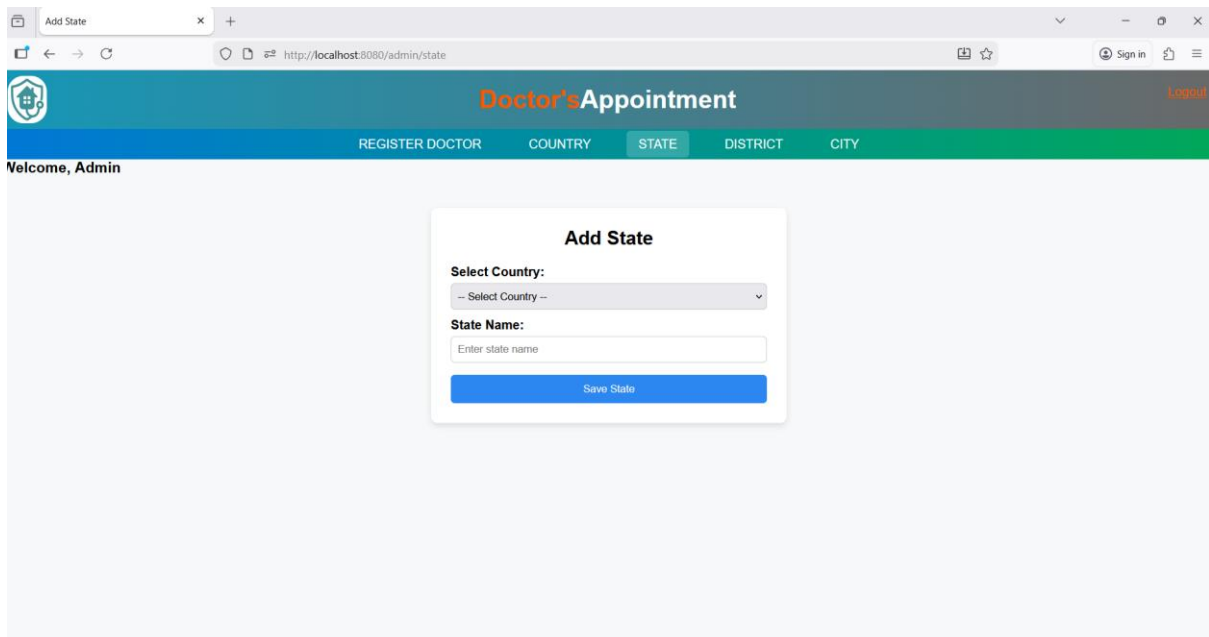
This feature ensures that only **certified and trusted healthcare professionals** are onboarded to the Doctor's Appointment system.

Country, State, District, City



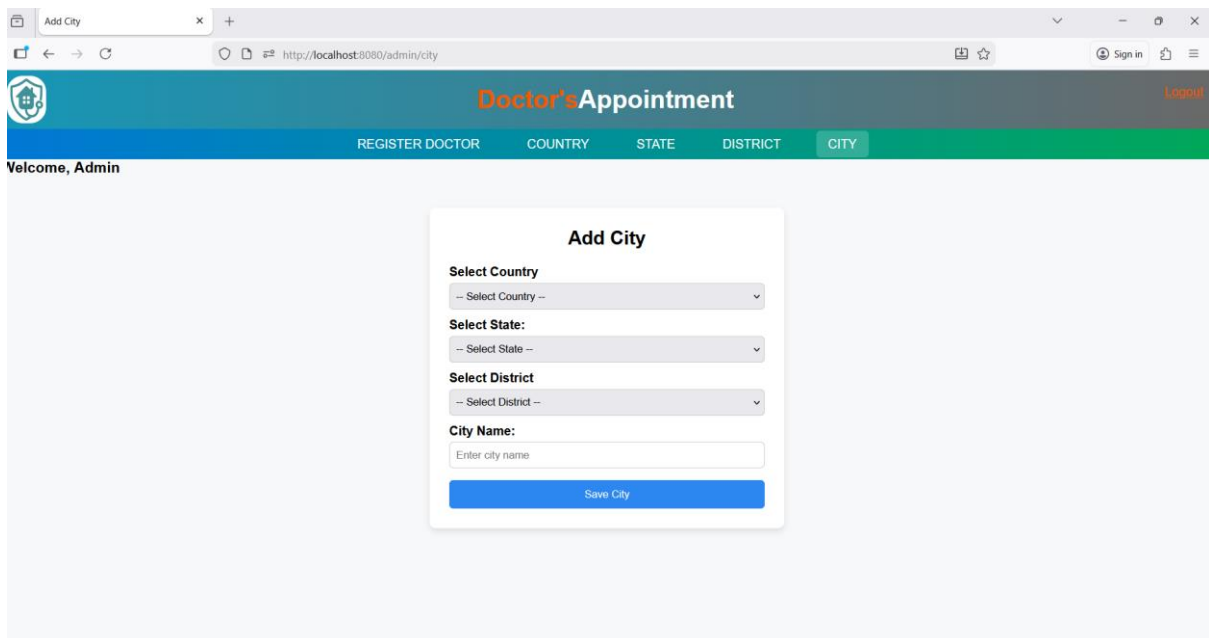
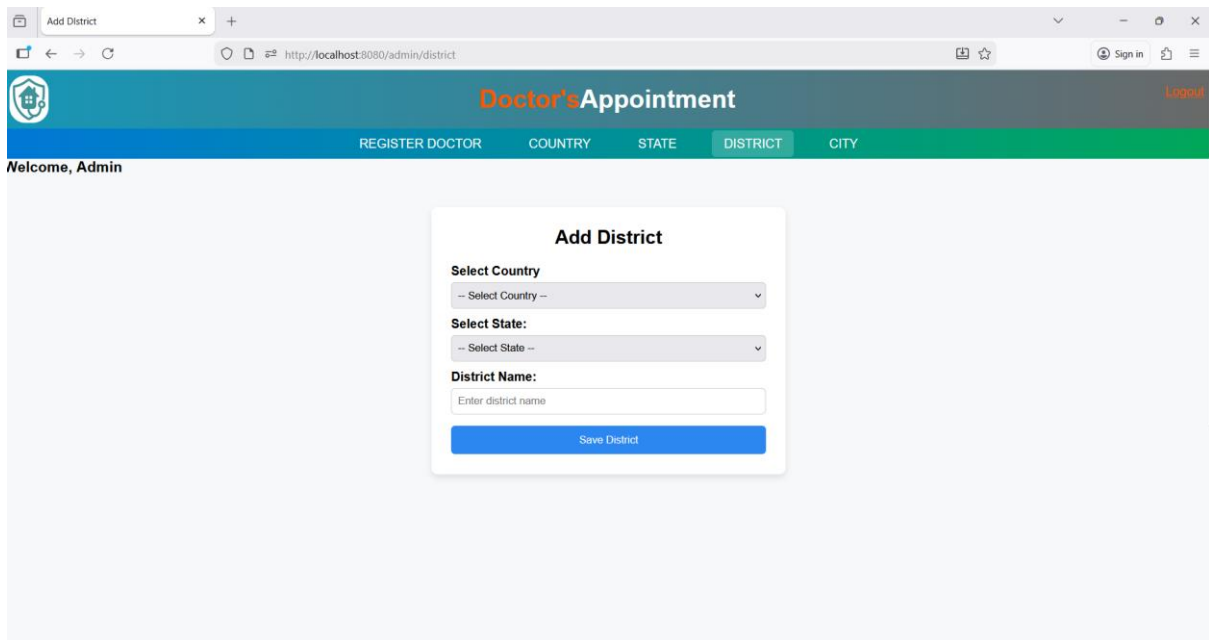
The screenshot shows a web browser window with the URL `http://localhost:8080/admin/country`. The page header includes the "Doctor'sAppointment" logo and a navigation menu with options: REGISTER DOCTOR, COUNTRY (selected), STATE, DISTRICT, and CITY. A "Logout" link is visible in the top right. Below the header, a "Welcome, Admin" message is displayed. The main content area features a white form titled "Add Country" with the following fields and buttons:

- Country Name:** A text input field with the placeholder text "Enter country name".
- Save Country:** A blue button.



The screenshot shows a web browser window with the URL `http://localhost:8080/admin/state`. The page header is identical to the previous screenshot, with the "STATE" option selected in the navigation menu. Below the header, a "Welcome, Admin" message is displayed. The main content area features a white form titled "Add State" with the following fields and buttons:

- Select Country:** A dropdown menu with the placeholder text "-- Select Country --".
- State Name:** A text input field with the placeholder text "Enter state name".
- Save State:** A blue button.



The Admin panel allows seamless management of geographical data including **Country, State, District, and City**, which forms the foundational layer of the system.

By adding this information, the platform ensures that doctors can register their clinic locations accurately and patients can book appointments based on nearby areas.

The structured geographical hierarchy improves **search accuracy** and helps in filtering doctors based on locality.

This feature saves time for users by displaying relevant healthcare providers according to their region.

It also enhances reporting and analytics by providing clear location-wise categorization of registrations and appointments.

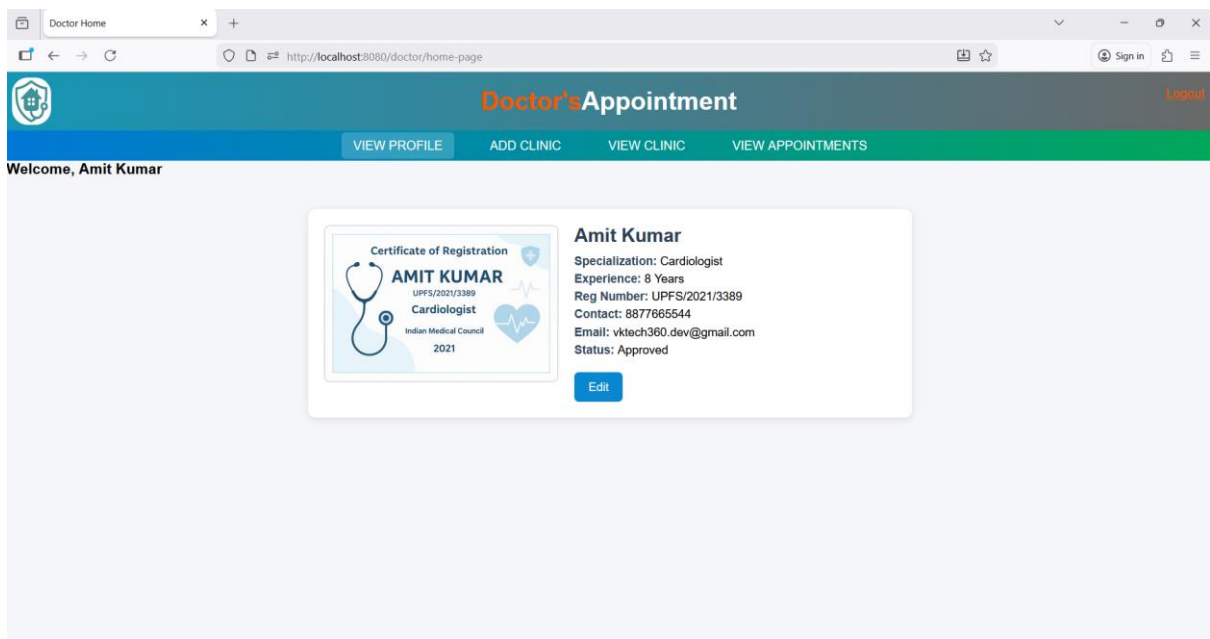
Overall, maintaining geographic master data supports a **well-organized, scalable, and user-friendly appointment system.**

2. Doctor Module

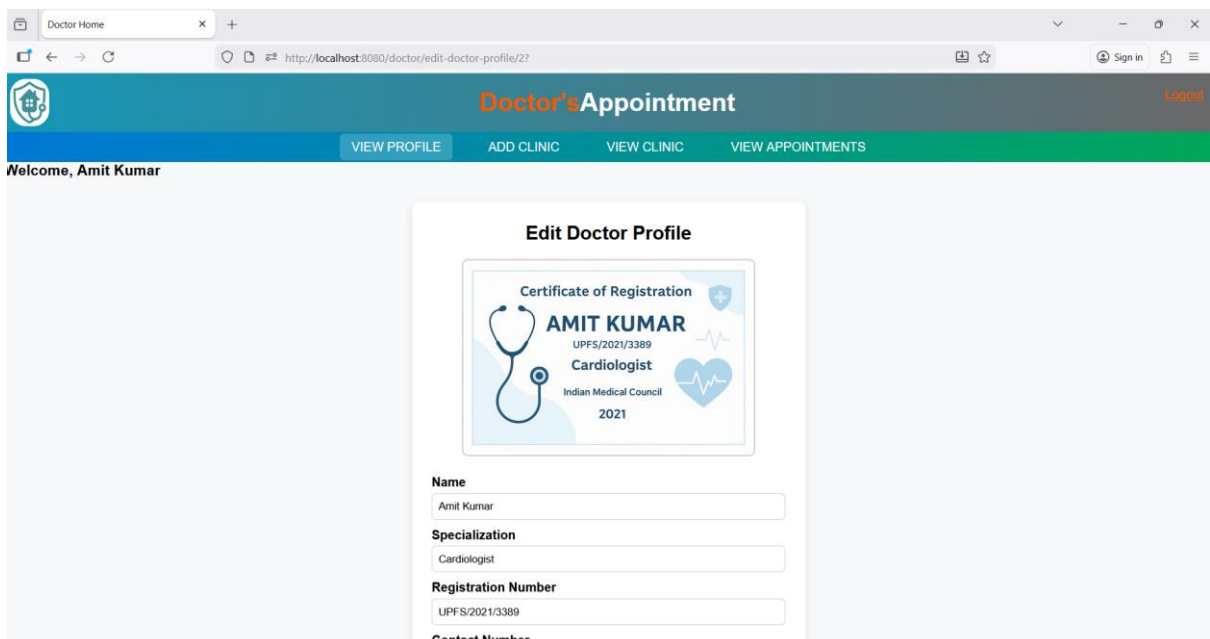
The Doctor Module allows healthcare professionals to register, create detailed profiles, and define their clinic timing and specialization.

Doctors can view & manage patient appointments, track consultation history, and maintain seamless doctor-patient interaction.

View Profile



The screenshot shows a web browser window with the URL `http://localhost:8080/doctor/home-page`. The page features a dark teal header with the logo and the text "Doctor'sAppointment" and "Logout". Below the header is a navigation bar with buttons for "VIEW PROFILE", "ADD CLINIC", "VIEW CLINIC", and "VIEW APPOINTMENTS". The main content area displays a welcome message "Welcome, Amit Kumar" and a profile card for Amit Kumar. The profile card includes a "Certificate of Registration" from the Indian Medical Council (UPFS/2021/3389) for a Cardiologist, and personal details: Specialization: Cardiologist, Experience: 8 Years, Reg Number: UPFS/2021/3389, Contact: 8877686544, Email: vktech360.dev@gmail.com, and Status: Approved. An "Edit" button is located at the bottom of the profile card.



The screenshot shows a web browser window with the URL `http://localhost:8080/doctor/edit-doctor-profile/2?`. The page features the same header and navigation bar as the previous screenshot. The main content area displays a welcome message "Welcome, Amit Kumar" and an "Edit Doctor Profile" form. The form includes a "Certificate of Registration" from the Indian Medical Council (UPFS/2021/3389) for a Cardiologist, and input fields for: Name (Amit Kumar), Specialization (Cardiologist), Registration Number (UPFS/2021/3389), and Contact Number.

Doctors can access their professional profile to view all personal and registration details in one place.

They can update key editable fields such as **Name, Contact Number, and Experience** to keep their information current.

Profile updates help maintain accuracy for patients who search and book appointments based on doctor details.

This feature ensures transparency and allows doctors to manage their identity and credibility on the platform.

Add Clinic

The screenshot shows a web browser window with the URL `http://localhost:8080/doctor/add-clinic-info`. The page title is "Doctor's Appointment" and the user is logged in as "Amit Kumar". The navigation menu includes "VIEW PROFILE", "ADD CLINIC", "VIEW CLINIC", and "VIEW APPOINTMENTS". The main content area displays the "Add Clinic Information" form, which includes the following fields:

- Clinic Name**: Enter clinic name
- Clinic Address**: Enter address
- Select Country**: -- Select Country --
- Select State**: -- Select State --
- Select District**: -- Select District --
- Select City**: -- Select City --
- Contact Number**: Enter contact number

The **Add Clinic** page allows doctors to register the complete details of their clinic for patient booking and visibility.

Doctors can enter clinic information such as **clinic name, address, contact number, country, state, district, and city**.

They can also specify **available weekdays and clinic operating hours** so patients know the exact timing for appointments.

By saving the clinic details, the clinic becomes **available on the platform for patients to view and book appointments**.

View Clinic

Clinic Name	Address	City	Contact Number	Weekdays	Open Time	Close Time	Action
Galaxy Hospital	H-142, New Colony, PP Ganj	PP Ganj	9988776655	MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY	09:00	19:00	Edit Delete

Edit Clinic Information

Clinic Name
Galaxy Hospital

Clinic Address
H-142, New Colony, PP Ganj

City
PP Ganj

Contact Number
9988776655

Select Weekdays
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY

Open Time
09:00 am

Close Time

The **View Clinic** page allows doctors to see all the clinic details they have added, displayed in a structured table format.

Doctors can use the **Edit** button to update clinic information such as address, contact number, working days, and clinic timings whenever needed.

The **Delete** button enables doctors to remove any clinic that is no longer active or valid.

This module helps doctors keep their professional practice information accurate and up-to-date for the patients.

Maintaining correct clinic information ensures smooth appointment booking and enhances the patient experience.

View Appointments

The screenshot shows a web browser window with the URL `http://localhost:8080/doctor/view-appointments`. The page header includes a logo and navigation links: [VIEW PROFILE](#), [ADD CLINIC](#), [VIEW CLINIC](#), and [VIEW APPOINTMENTS](#). A welcome message reads "Welcome, Amit Kumar". The main content area is titled "View Appointments" and contains a table with the following data:

Booking ID	Patient Name	Contact	Clinic Name	Clinic Address	Appointment Date	Weekday	Status	Booked On	Action
B426496	Aman Kumar1	2211221121	Galaxy Hospital	H-142, New Colony, PP Ganj	29-Nov-2025	SATURDAY	BOOKED	27-Nov-2025 21:57	Cancel

The screenshot shows an email interface with the subject "Appointment Cancellation Notice" and sender "vktech360.dev@gmail.com". The email body contains the following text:

Dear Aman Kumar,

We regret to inform you that your appointment with **Dr. Amit Kumar** scheduled for **2025-11-29** at **Galaxy Hospital** has been cancelled due to unforeseen reasons. We sincerely apologize for the inconvenience caused.

Our team will contact you to help you reschedule your appointment.

Appointment Details:

- **Doctor:** Dr. Amit Kumar
- **Clinic:** Galaxy Hospital
- **Date:** 2025-11-29
- **Booking ID:** B426496

Thank you for your understanding.

Regards,
Doctor's Appointment Team

This is an automated message. Please do not reply.

The **View Appointments** page allows doctors to check all booked appointments with complete details such as patient name, clinic, date, weekday, and booking status. Doctors can track upcoming consultations effectively and stay updated on their schedule. If required due to emergencies or unavailability, the doctor can cancel any appointment

using the **Cancel** button.

Once an appointment is cancelled, an automatic email notification is sent to the patient informing them about the cancellation.

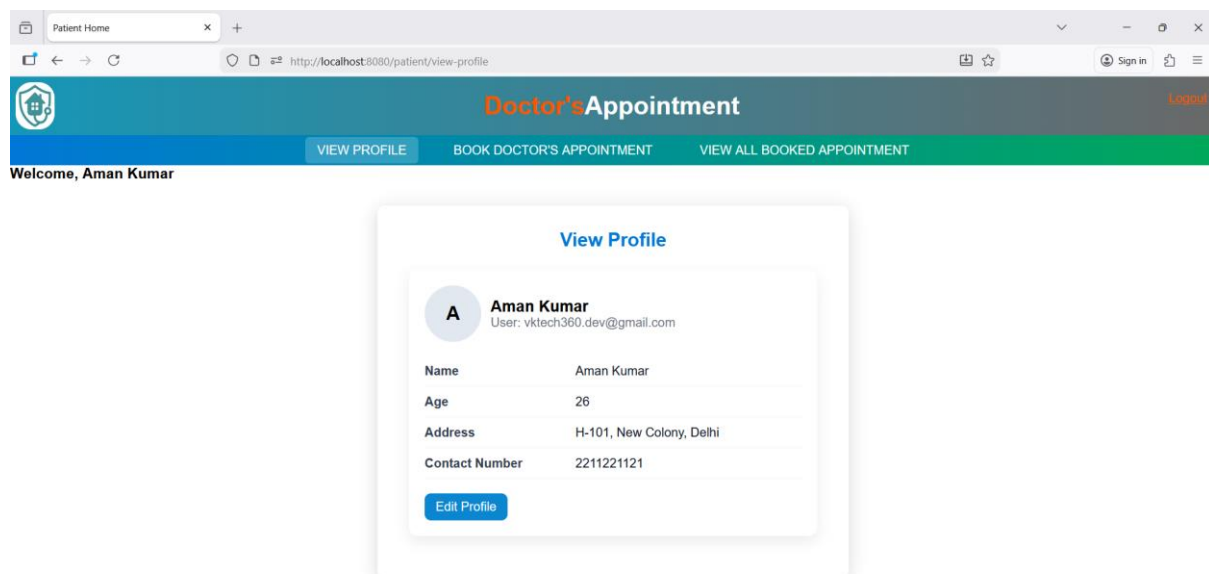
This ensures clear communication and helps the patient reschedule their appointment without inconvenience.

3. Patient Module

The Patient Module enables individuals to register, search for doctors, view clinic schedules, and book appointments based on their convenience.

Patients can manage their profile, track their booked appointments, and receive automated mail.

View Profile

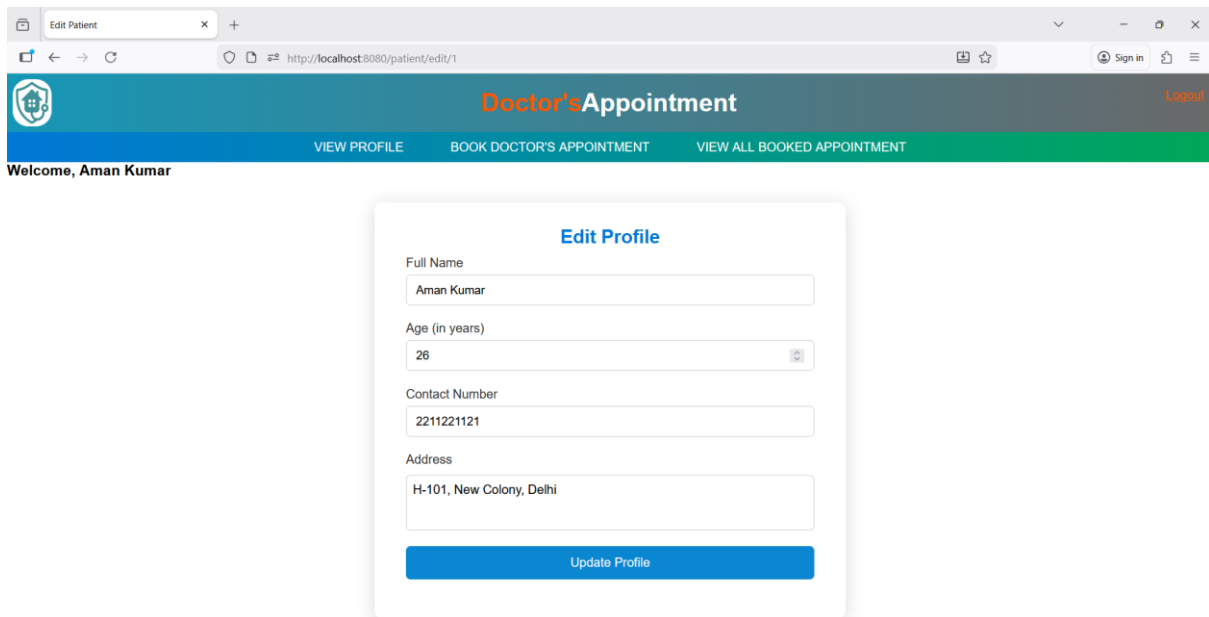


The Patient Module allows patients to securely access and manage their personal profile. Patients can view important details such as their full name, age, contact number, and address in a well-organized format.

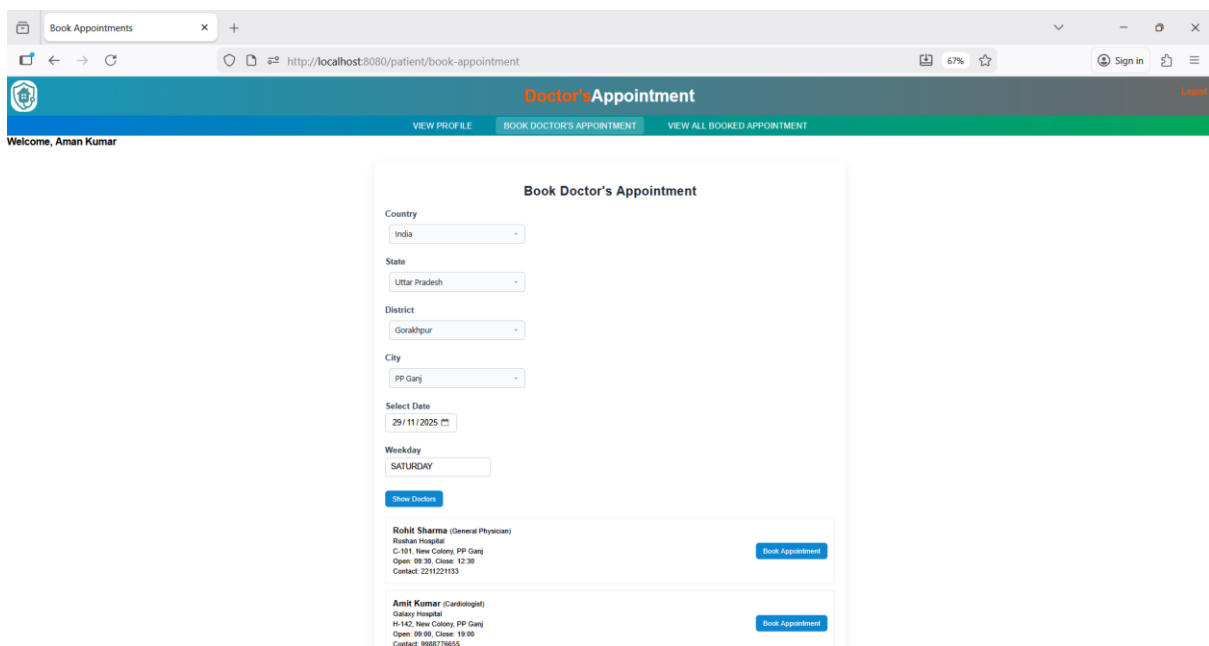
By clicking the **“Edit Profile”** button, patients can easily update their information anytime when needed.

This flexibility ensures that doctors receive accurate patient details for appointments and communication.

The feature enhances user experience by keeping patient records up-to-date, secure, and user-controlled.



Book Doctor's Appointment



The Patient Module enables users to easily search and book doctor appointments based on **location and available dates**.

Patients can select **Country, State, District, City, Date, and Weekday** to filter doctors according to their convenience.

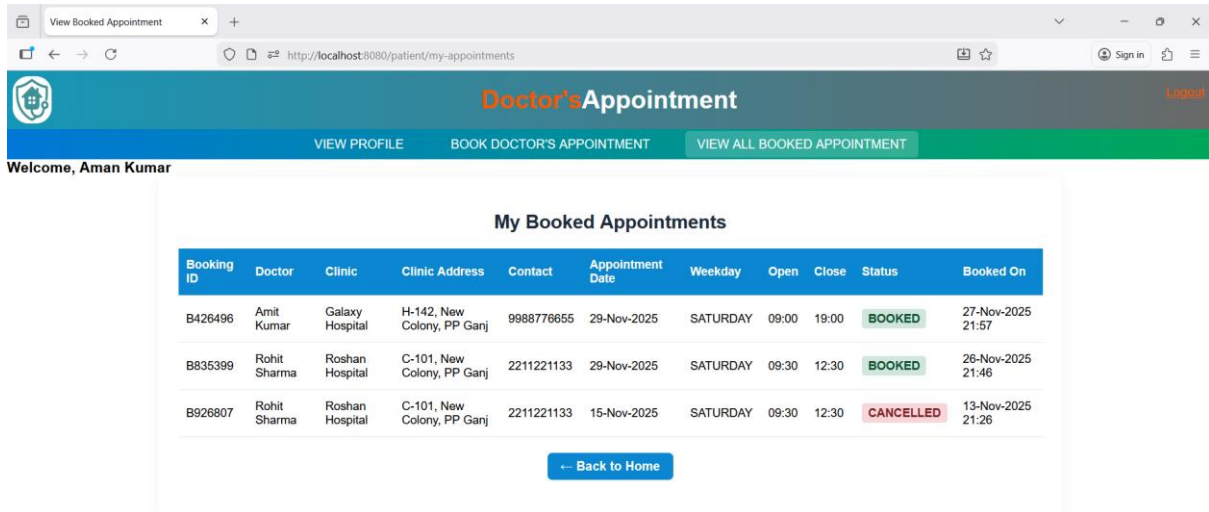
By clicking on the **“Show Doctors”** button, the system displays all doctors available matching the selected criteria.

Each doctor's clinic details, specialization, timings, and contact information are shown for

patient reference.

Patients can confirm their choice by clicking **“Book Appointment”**, which successfully schedules their appointment with the selected doctor.

View All Booked Appointment



The screenshot displays a web browser window with the URL `http://localhost:8080/patient/my-appointments`. The page header includes a logo, the title "Doctor'sAppointment", and navigation links: "VIEW PROFILE", "BOOK DOCTOR'S APPOINTMENT", and "VIEW ALL BOOKED APPOINTMENT". A welcome message "Welcome, Aman Kumar" is shown. The main content area is titled "My Booked Appointments" and contains a table with the following data:

Booking ID	Doctor	Clinic	Clinic Address	Contact	Appointment Date	Weekday	Open	Close	Status	Booked On
B426496	Amit Kumar	Galaxy Hospital	H-142, New Colony, PP Ganj	9988776655	29-Nov-2025	SATURDAY	09:00	19:00	BOOKED	27-Nov-2025 21:57
B835399	Rohit Sharma	Roshan Hospital	C-101, New Colony, PP Ganj	2211221133	29-Nov-2025	SATURDAY	09:30	12:30	BOOKED	26-Nov-2025 21:46
B926807	Rohit Sharma	Roshan Hospital	C-101, New Colony, PP Ganj	2211221133	15-Nov-2025	SATURDAY	09:30	12:30	CANCELLED	13-Nov-2025 21:26

A "Back to Home" button is located below the table.

This page allows patients to view a complete list of all their booked appointments in one place, including both **upcoming and past visits**.

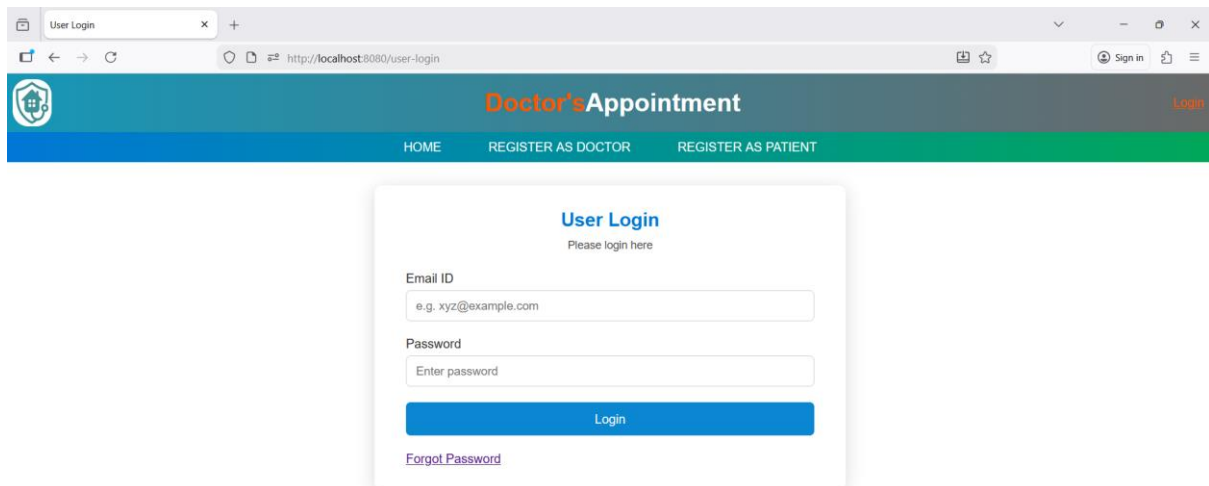
The appointment table displays important details such as **Doctor Name, Clinic Name, Clinic Address, Contact Number, Appointment Date, Day, Timing, and Booking Status**.

Patients can easily track which appointments are **Booked** and which are **Cancelled**.

The feature helps patients stay organized and plan their visits efficiently without missing scheduled appointments.

A **“Back to Home”** button is provided for smooth navigation to the patient dashboard.

Login



The screenshot shows a web browser window with the URL `http://localhost:8080/user-login`. The page header features the "Doctor's Appointment" logo and navigation links for "HOME", "REGISTER AS DOCTOR", and "REGISTER AS PATIENT". The main content area is a white box titled "User Login" with the instruction "Please login here". It contains two input fields: "Email ID" with a placeholder "e.g. xyz@example.com" and "Password" with a placeholder "Enter password". A blue "Login" button is positioned below the fields, and a purple link for "Forgot Password" is located at the bottom left of the box.

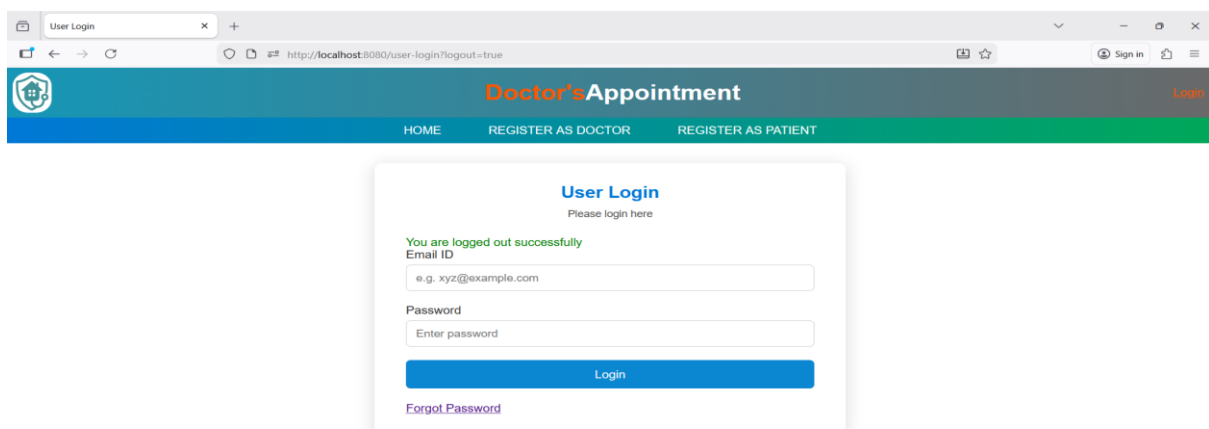
The login page allows registered users to securely access the system using their email ID and password.

It supports **role-based access control**, enabling patients, doctors, and admins to log in using the same form but access different dashboards.

Only verified users can sign in, ensuring data privacy and authorized usage of the platform. If a user forgets the password, the **"Forgot Password"** link helps recover access via email verification.

The login module ensures a safe and smooth entry point for all application users.

Logout



The screenshot shows the same "User Login" form as above, but with a green message "You are logged out successfully" displayed above the "Email ID" field. The browser's address bar now shows `http://localhost:8080/user-login?logout=true`. The rest of the page layout, including the header and navigation links, remains identical to the previous screenshot.

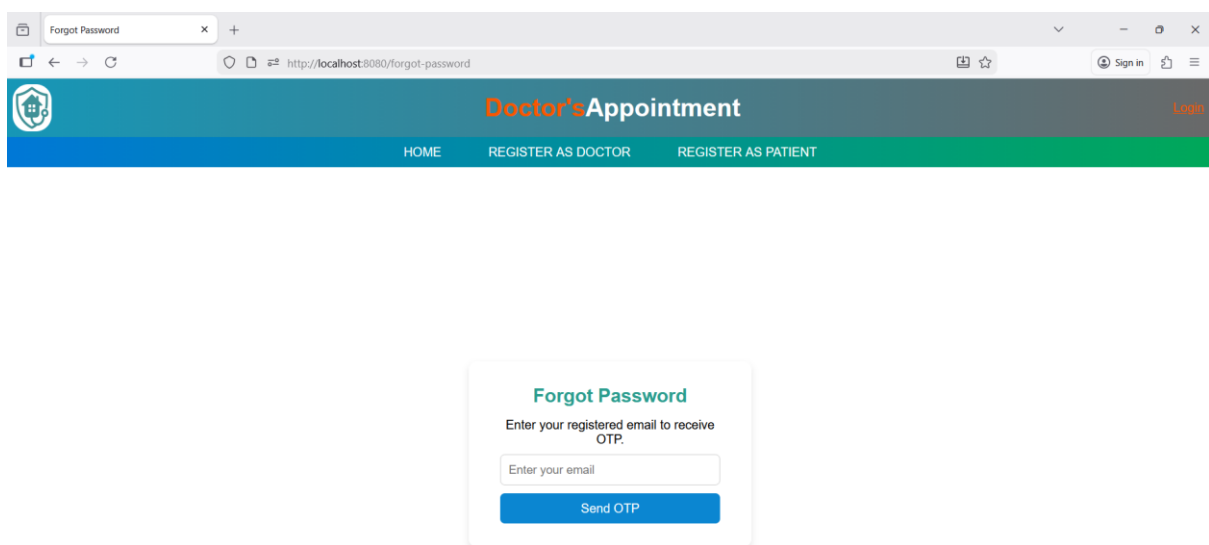
The Logout feature allows users to securely exit the application after completing their tasks. When the user clicks on the **Logout** link, the system immediately **invalidates the current logged-in session** to prevent unauthorized access.

This ensures that no one can access patient, doctor, or admin information without logging in again.

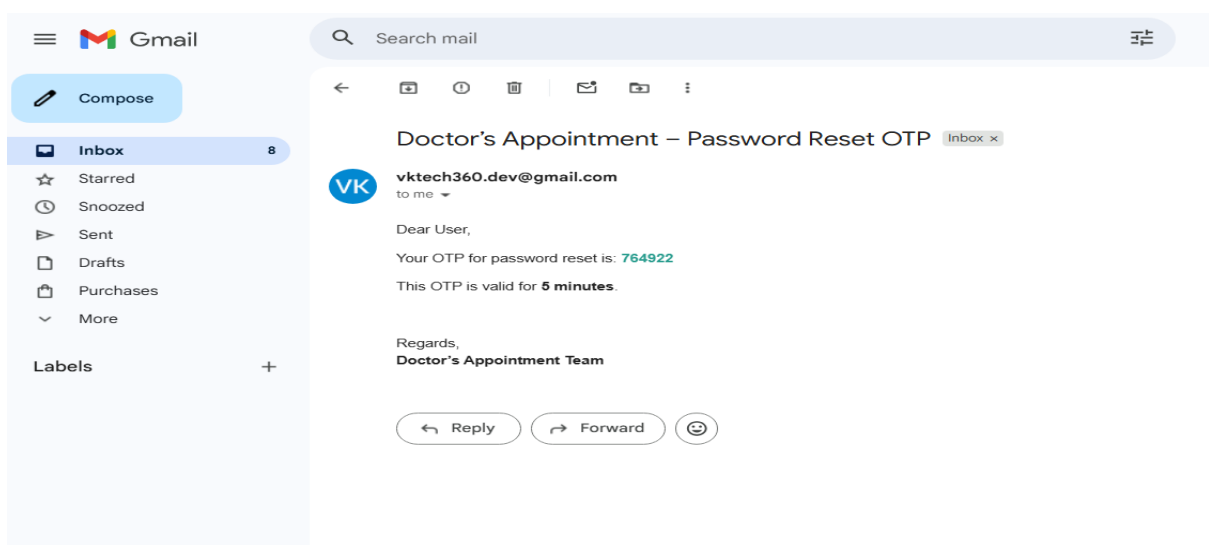
After logout, the user is redirected to the **login page** for enhanced user experience.

The Logout module plays an important role in maintaining **security, privacy, and controlled access** throughout the application.

Forgot Password



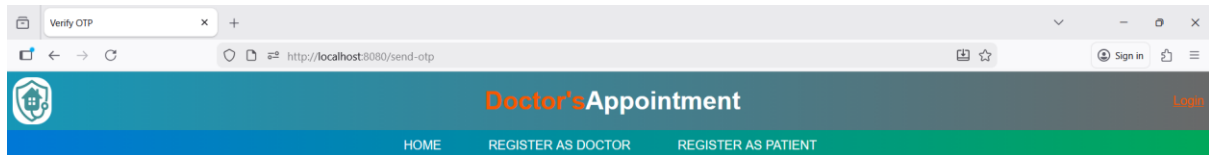
The screenshot shows a web browser window with the title 'Forgot Password' and the URL 'http://localhost:8080/forgot-password'. The page header features the 'Doctor's Appointment' logo and navigation links for 'HOME', 'REGISTER AS DOCTOR', and 'REGISTER AS PATIENT'. A 'Login' link is visible in the top right corner. The main content area contains a white card with the heading 'Forgot Password' and the instruction 'Enter your registered email to receive OTP.' Below this is a text input field labeled 'Enter your email' and a blue 'Send OTP' button.



The **Forgot Password** page allows users to initiate a password reset by entering their registered email address.

After clicking the **Send OTP** button, the system automatically emails a One-Time Password (OTP) to the provided email for verification.

This OTP is then used in the next step of the reset process to securely confirm the user's identity before creating a new password.

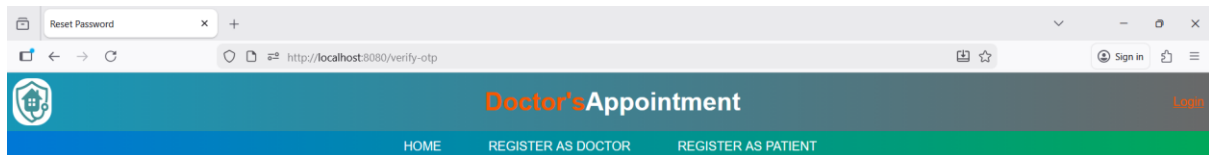


Verify OTP

Enter 6-digit OTP

Verify

OTP sent successfully to your email.



Reset Password

New Password

Confirm Password

Update Password

After the user enters their registered email in the Forgot Password page, they are redirected to the **Verify OTP** screen.

Here, the user must enter the **6-digit OTP** received in their email and click the **Verify** button to continue.

The system validates the OTP and ensures it matches the auto-generated code sent to the

registered email.

If the OTP is correct, the user is automatically redirected to the **Reset Password** form.

On the Reset Password page, the user must enter a **new password** and confirm it to ensure accuracy.

Once the password is successfully updated, the user can log in again using the newly created password.