INTRODUCTION

Welcome to MediMeetUp, your premier online platform for seamless and convenient appointment scheduling with healthcare professionals. In today's fast-paced world, we understand the importance of timely access to medical care, which is why MediMeetUp is designed to revolutionise the way patients connect with doctors. Our platform offers an intuitive and efficient system that allows you to book designated time slots with trusted medical practitioners with ease.

We prioritise user experience, providing a user-friendly interface that ensures you can effortlessly schedule appointments at your convenience, anytime and anywhere. Say goodbye to the frustrations of long waits on the phone and the uncertainty of walk-in visits. Whether you need a routine check-up, a specialist consultation, or follow-up care, MediMeetUp empowers you to take control of your healthcare journey with just a few clicks.

Link: https://github.com/nexiouscaliver/doctor-appointment-system

TECHNICAL STACK OVERVIEW

MediMeetUp uses HTML, CSS, and JavaScript was used in the frontend to create a seamless and intuitive appointment scheduling experience.

The backend uses Flask for lightweight processing of the details necessary alongside Sqlite3 for storage and retrieval of the details of the patients as well as doctors

HTML

- **Structure**: Provides the foundation with forms, tables, and dynamic content integration for displaying patient and appointment information.

CSS

- **Styling**: Ensures a clean, modern, and responsive design with styles for containers, forms, and buttons. Includes animations like fadeIn and tableSlideIn to enhance user experience.

JavaScript

- **Interactivity**: Adds dynamic functionality with form handling (open, close, submit) and event listeners for user actions. Provides immediate feedback with alerts and real-time updates.

Sqlite3

- **Database:** Storage of necessary information on patients and doctors including login details, registration as well as appointment requests and confirmations

Flask

- **Framework:** The mainframe uses Flask for processing and connectivity between the frontend and the database, as well acting as the backend support enabling effective and rapid procedure completion

HTML FEATURES USED

Common Features:

- **DOCTYPE Declaration**
  - **<!DOCTYPE html>** for HTML version specification.
- **HTML Tag**
  - **<html lang="en">** for document language.
- **Head Section**
  - **<meta charset="UTF-8">** for character encoding.
  - **<meta name="viewport" content="width=device-width, initial-scale=1.0">** for responsive design.
  - **<title>** for document title.
  - **<style>** for internal CSS.
- **Body Section**
  - **<body>** for the document body.

Specific Features in patientForm.html:

- **Container**
  - ** ** for wrapping form content.
- **Form Elements**
  - **<form action="/submit_appointment" method="post">** for form submission.
  - ** ** for grouping form fields.
  - **<label>** for form labels.
  - **<input>, <select>, <textarea>** for different types of inputs.
  - **<button type="submit" class="submit-button">** for submission.

Specific Features in DocSchedule.html:

- **Container**
  - ** ** for wrapping scheduling content.
- **Table Elements**
  - **<table>** for tabular data.

    - **<thead>, <tbody id="appointmentTable">** for table structure.
    - **<th>, <td>** for table headers and data cells.
- **Dynamic Content**
    - **{% for i in output %}...{% endfor %}** for server-side templating.
- **Schedule Form**
    - ** ** for conditional form display.
    - **<form id="scheduleForm" method="post">** for form handling.

These features allow the creation of a structured, dynamic, and user-friendly interface for MediMeetUp.

CSS FEATURES USED

General Styling

- **Font and Background:**
    - **font-family: Arial, sans-serif;**
    - **background-color: #f4f4f4; (Light grey background)**
    - **background-color: #f0f9ff; (Light blue background)**

Container Styling

- **Layout:**
    - **max-width: 600px; (Patient Form)**
    - **max-width: 800px; (Doctor Schedule)**
    - **margin: auto;**
    - **background: #fff; (White background)**
    - **padding: 20px;**
    - **box-shadow: 0 0 10px rgba(0, 0, 0, 0.1); (Subtle shadow)**
    - **border-radius: 5px; (Rounded corners)**

Typography

- **Headings and Labels:**
    - **text-align: center;**
    - **margin-bottom: 20px;**
    - **color: #428bca; (Blue heading and labels)**

Form Elements

- **Input Fields, Select, and Textarea:**
    - **width: 100%;**
    - **padding: 8px;**
    - **box-sizing: border-box;**
    - **border: 1px solid #ccc; (Light gray border)**

Buttons

- **General Button Styling:**
  - **background-color: #428bca; (Blue button)**
  - **color: white;**
  - **border: none;**
  - **padding: 10px 20px;**
  - **cursor: pointer;**
  - **border-radius: 5px; (Rounded corners)**
  - **transition: 0.4s ease; (Smoother transitions)**
- **Hover Effects:**
  - **background-color: #357ebd; (Darker blue hover)**
  - **background-color: #4cae4c; (Darker green hover for submit)**
  - **background-color: #c9302c; (Darker red hover for reject)**
- **Specific Button Colors:**
  - **background-color: #5cb85c; (Submit button)**
  - **background-color: #d9534f; (Reject button)**
  - **background-color: #3c763d; (Collapse button)**

Animations

- **Fade-in Animation:**
  - **@keyframes fadeIn { from { opacity: 0; } to { opacity: 1; } }**
  - **animation: fadeIn 2s ease-in-out;**
- **Slide-in Animation for Table:**
  - **@keyframes tableSlideIn { from { transform: translateX(-100px); } to { transform: translateX(0); } }**
  - **animation: tableSlideIn 1s ease-in-out;**

Table Styling

- **Table and Cells:**
  - **width: 100%;**
  - **border-collapse: collapse;**
  - **margin-bottom: 20px;**

    - **border: 1px solid #ddd;**
    - **padding: 8px;**
    - **text-align: left;**
- **Table Header:**
    - **background-color: #e0e0e0; (Light grey background)**

Additional Styling

- **Form Group Margin:**
    - **margin-bottom: 15px;**
- **Schedule Form Container Background:**
    - **background-color: #f5f5f5; (Light grey background for the form)**

These CSS features together create an intuitive, visually appealing, and user-friendly interface for MediMeetUp.

JAVASCRIPT FEATURES USED

- **Event Handling**: JavaScript functions are attached to HTML elements to handle events like button clicks (openScheduleForm, closeScheduleForm, rejectAppointment).

- **DOM Manipulation**: JavaScript is used to manipulate the Document Object Model (DOM) by changing the style (style.display) and value (value) of HTML elements.

- **Alert**: alert() function is used to display an alert message (alert('Appointment rejected.')).

- **WebSocket**: WebSocket is used for live reloading in development (WebSocket object is created and message handling for live reload is implemented).

- **Session Storage**: sessionStorage is used to store information about whether live reload has been enabled (sessionStorage.setItem, sessionStorage.getItem).

Flask Features used

- **Routing** (app.py):
    - @app.route("/"): Defines the homepage route.
    - @app.route("/login"): Defines the login route.
    - @app.route("/register"): Defines the registration route.
    - @app.route("/book"): Defines the appointment booking route.
    - @app.route("/logout"): Defines the logout route.
    - The exact routes differ for the doctor and patient but follow the general pattern

- **Templates** (templates/):
    - Uses Jinja2 to render HTML pages.
    - Example templates: index.html, login.html, register.html.
    - Form Handling (forms.py):

- **Uses Flask-WTF for form creation and validation.**
    - Forms include
        - LoginForm,
        - RegistrationForm
        - BookingForm.

- **Session Management:**
    - Manages user sessions using secure cookies

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- **Error Handling:**
    - Custom error pages and logging are implemented.

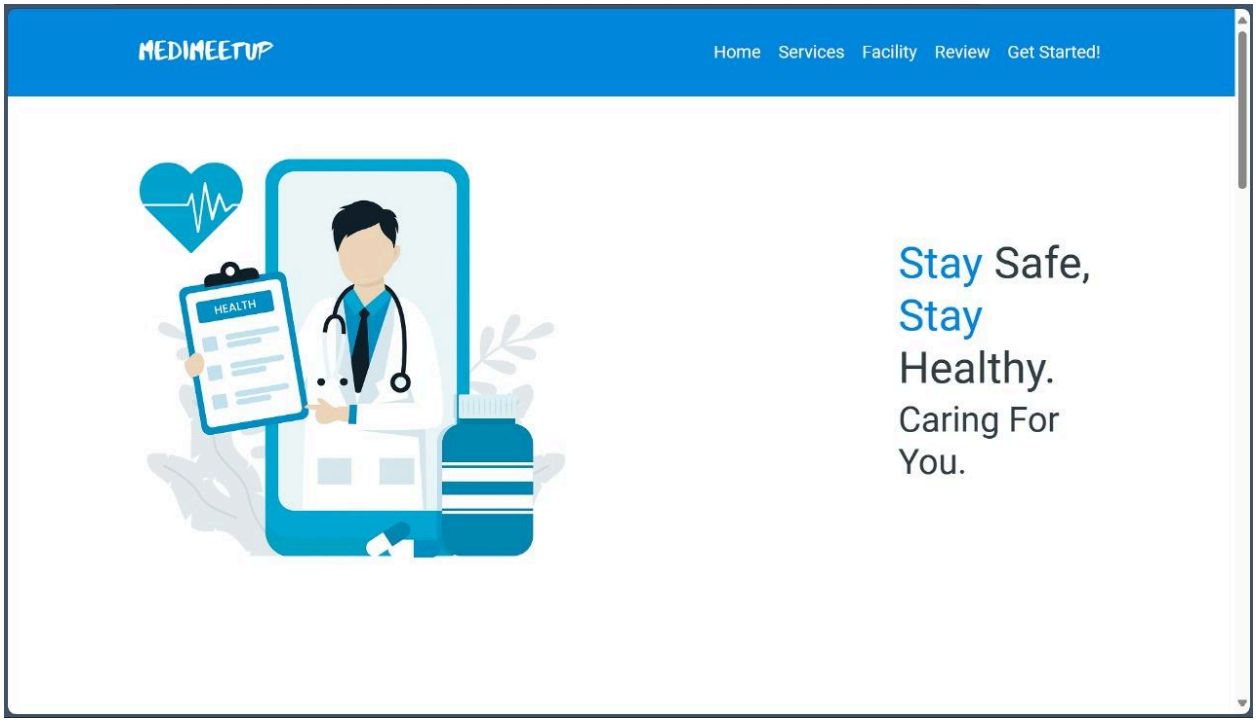
Sqlite3 Features used:

- **The project uses SQLite for data storage (database.db).**
    - Use of Separate databases to avoid clashing data

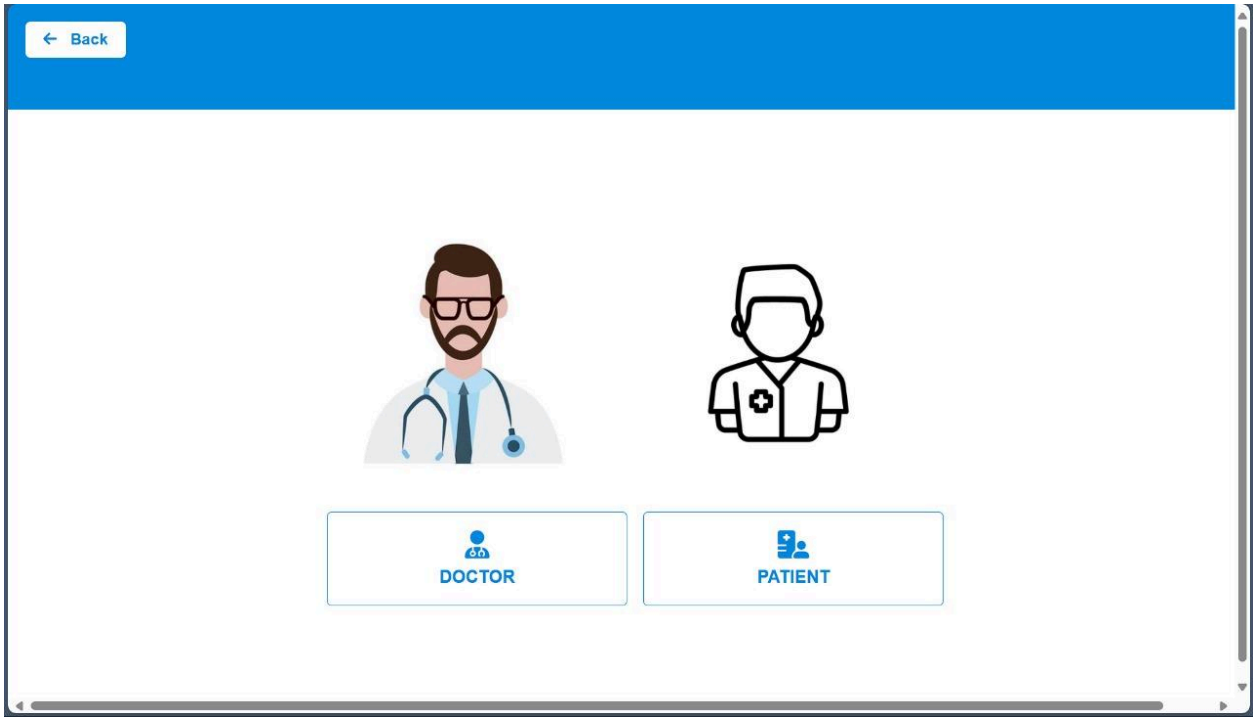
- **SQLAlchemy is used to interact with the database.**

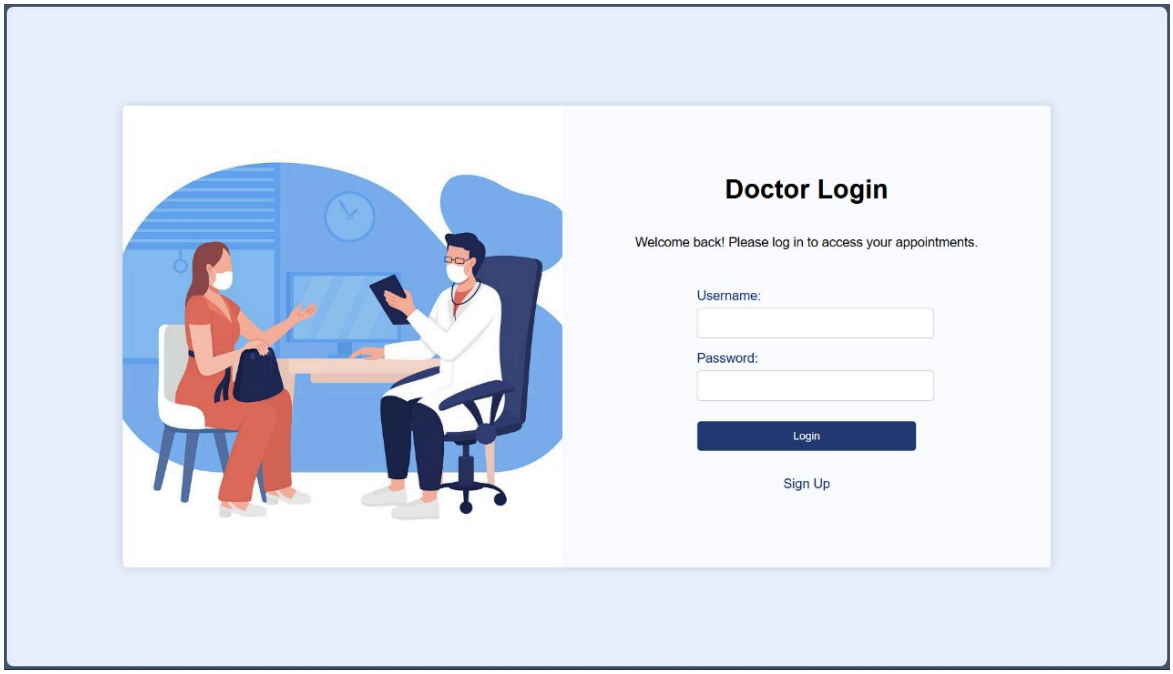
- **Models (models.py):**
    - Allows implementation of various features.

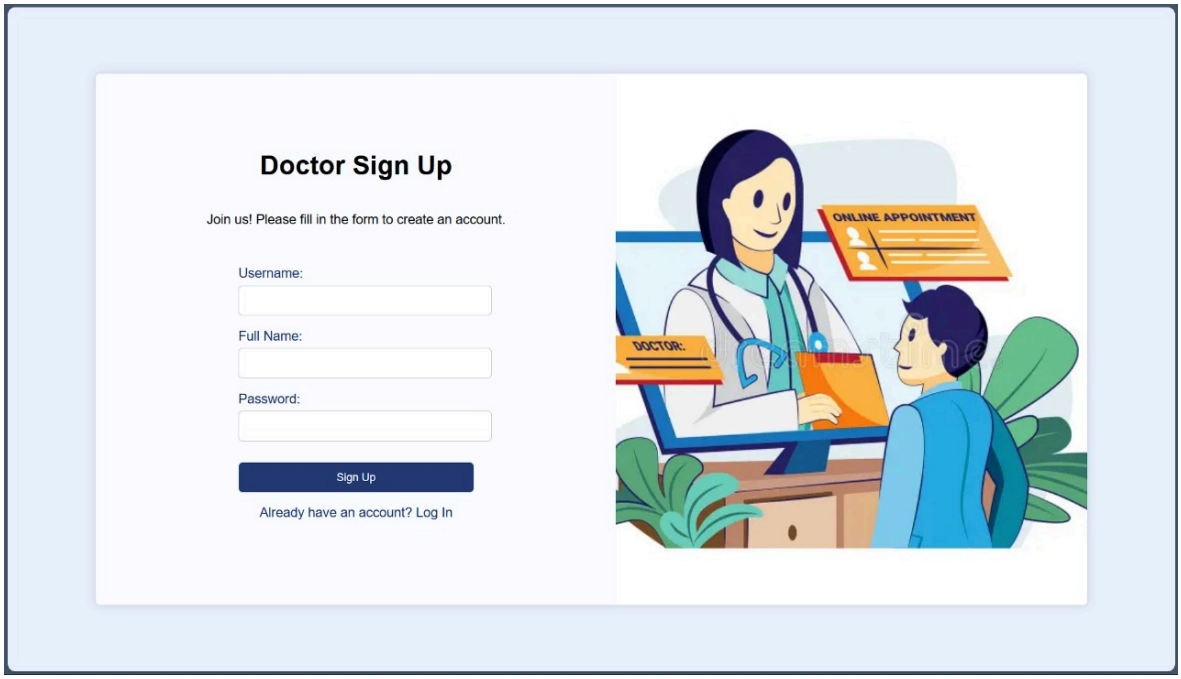
- **Queries used to efficiently locate as well as store relevant information of the required personnel**



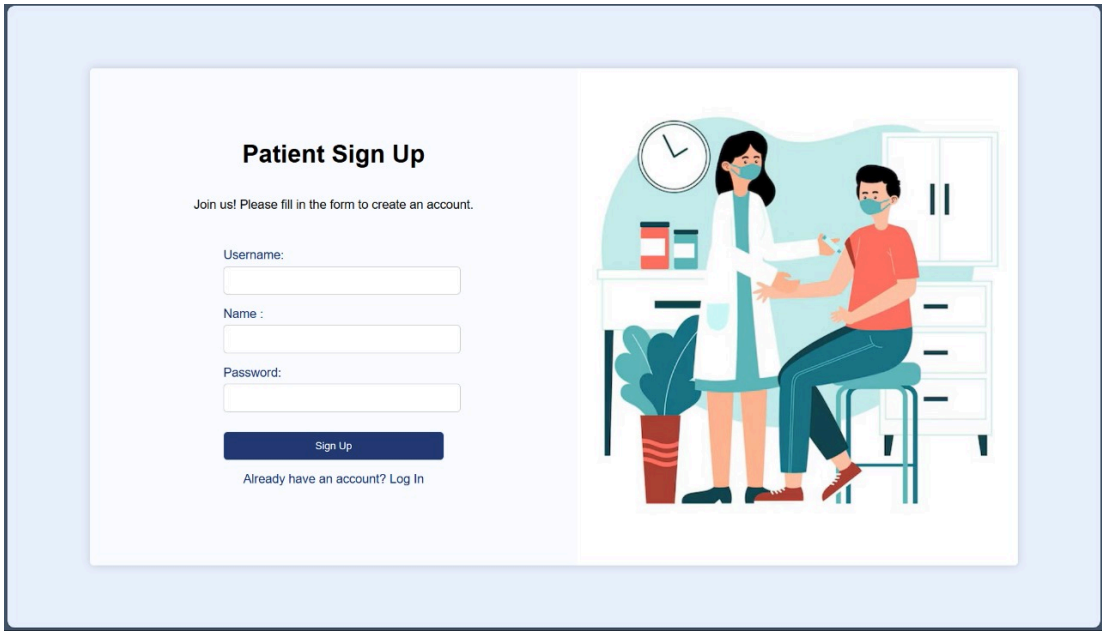
' Our Facilities '

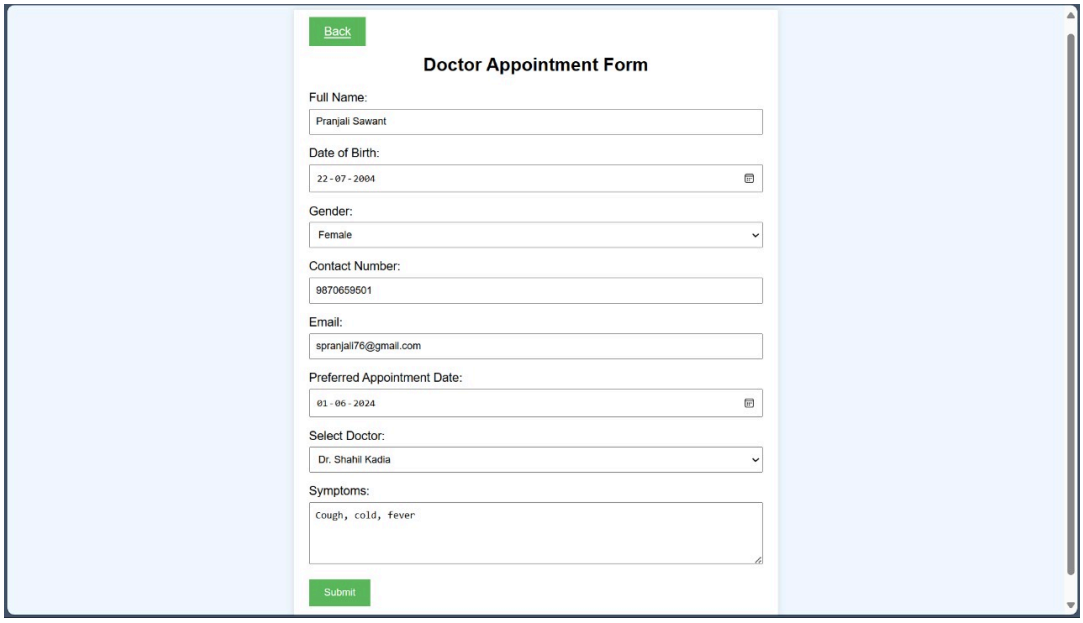

Back
DOCTOR
PATIENT

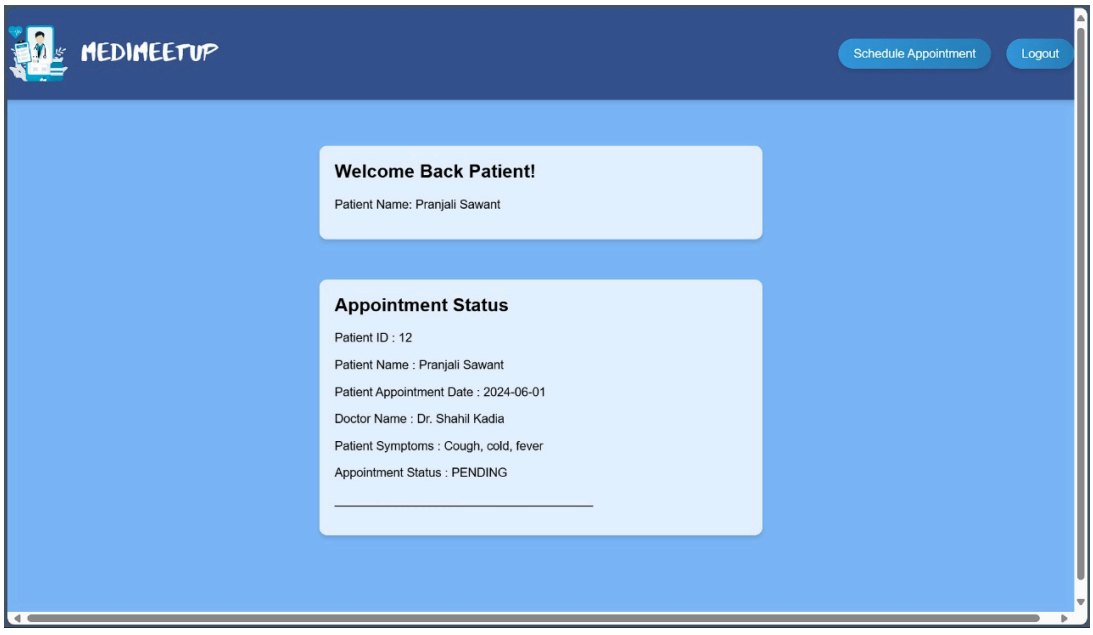

Doctor Login
Welcome back! Please log in to access your appointments.
Username:
Password:
Login
Sign Up

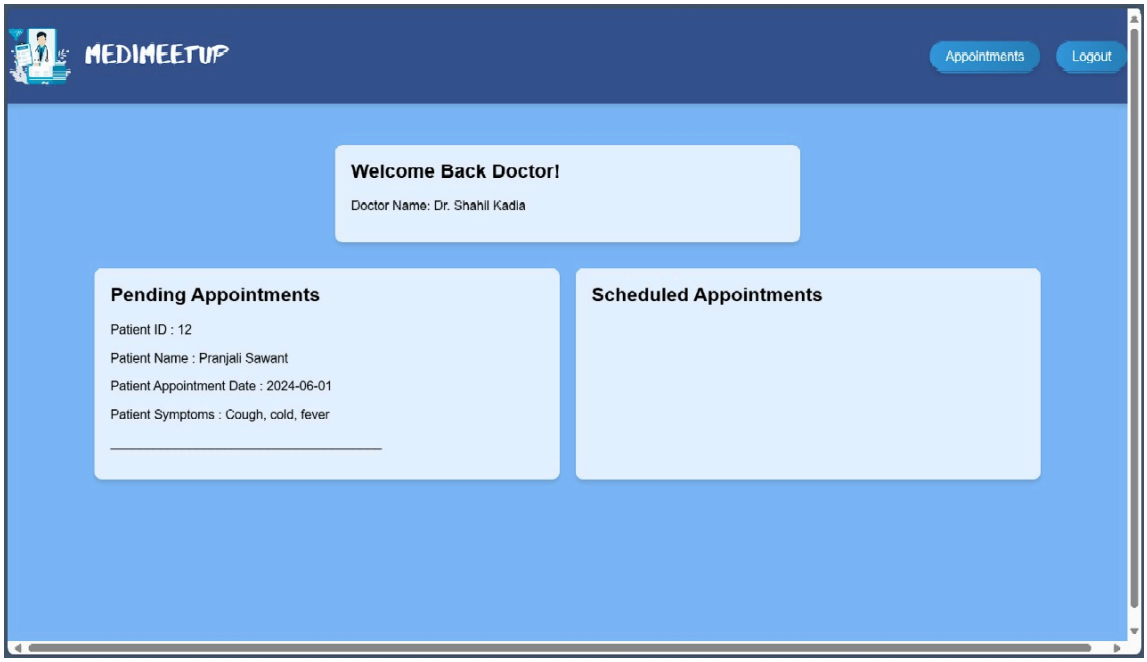

Doctor Sign Up
Join us! Please fill in the form to create an account.
Username:
Full Name:
Password:
Sign Up
Already have an account? Log In
ONLINE APPOINTMENT
DOCTOR:

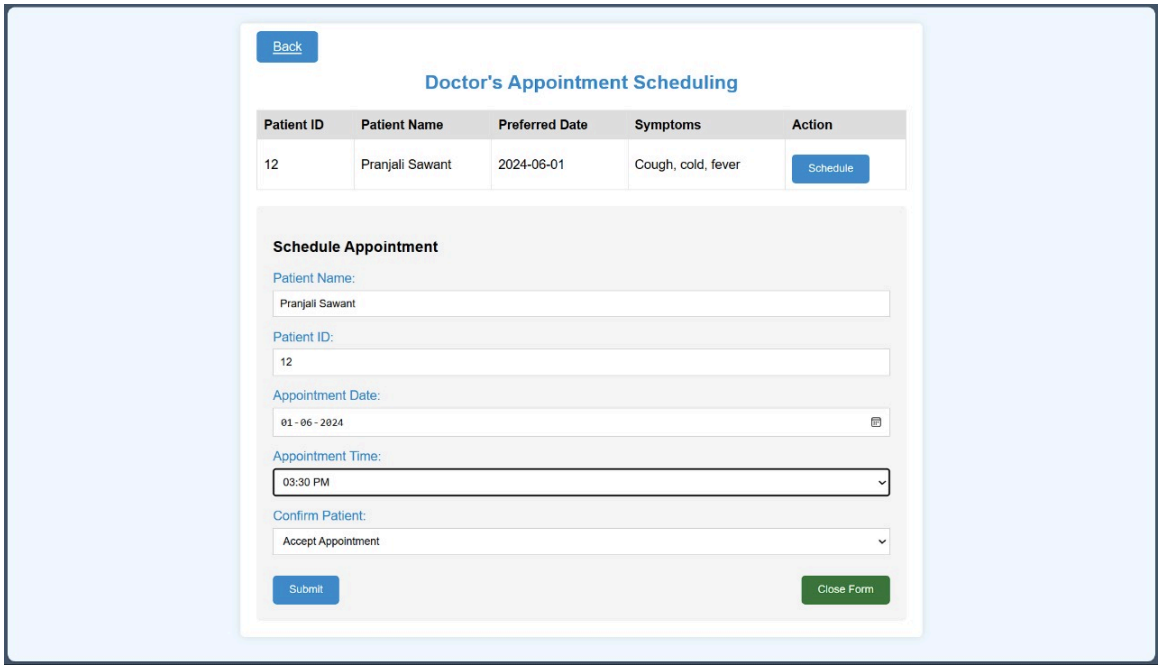

Patient Login
Welcome back! Please log in to access your appointments.
Username:
Password:
Login
Sign Up

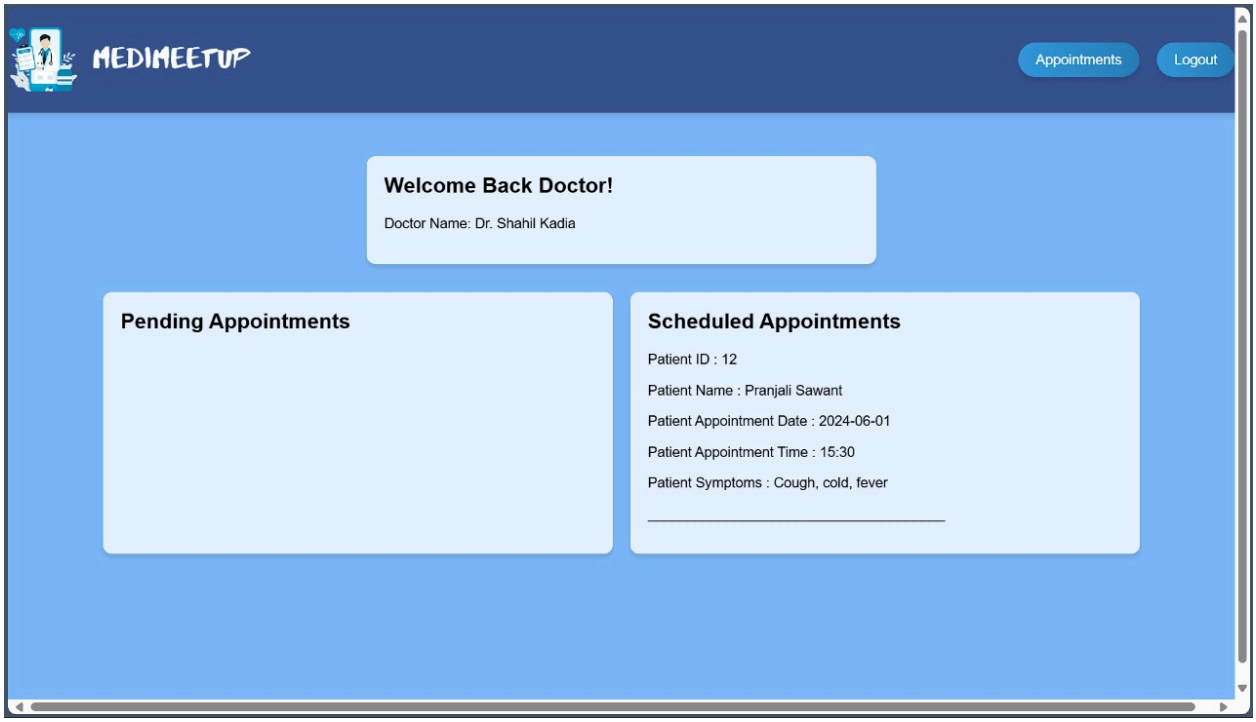

Patient Sign Up
Join us! Please fill in the form to create an account.
Username:
Name :
Password:
Sign Up
Already have an account? Log In

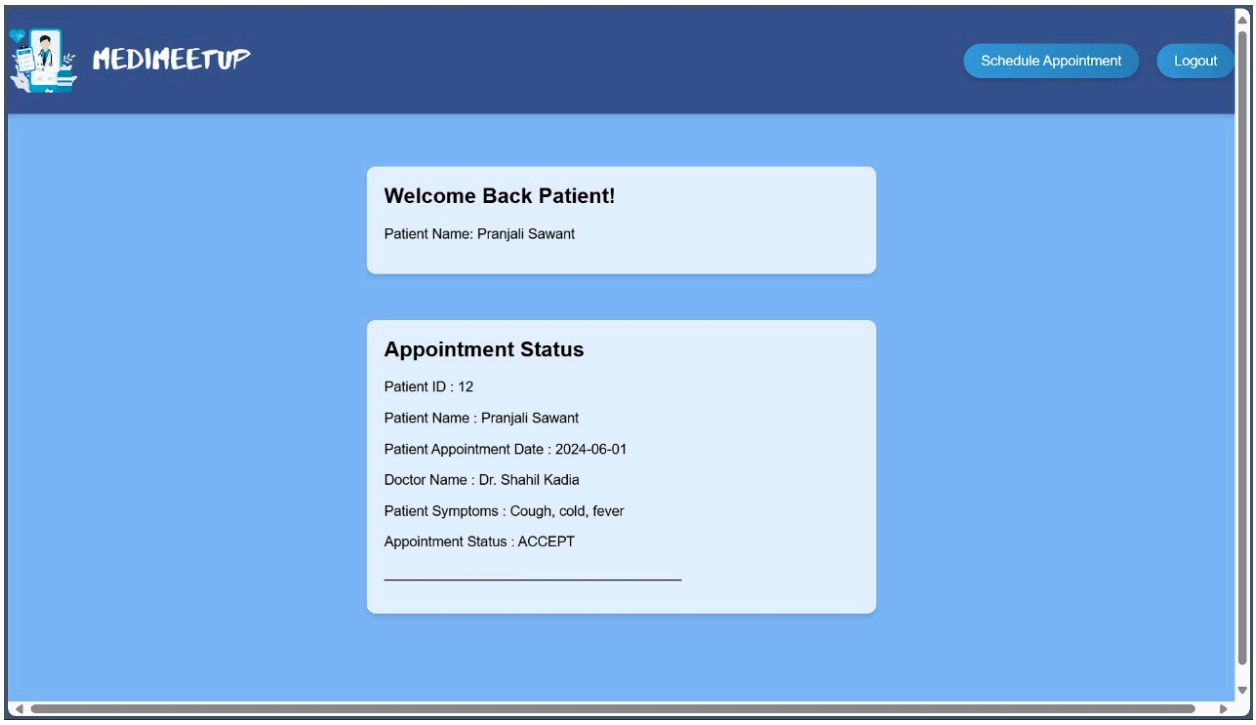

Back
Doctor Appointment Form
Full Name:
Pranjali Sawant
Date of Birth:
22-07-2004
Gender:
Female
Contact Number:
9870659501
Email:
spranjali76@gmail.com
Preferred Appointment Date:
01-06-2024
Select Doctor:
Dr. Shahil Kadia
Symptoms:
Cough, cold, fever
Submit


MEDIMEETUP
Schedule Appointment
Logout
Welcome Back Patient!
Patient Name: Pranjali Sawant
Appointment Status
Patient ID : 12
Patient Name : Pranjali Sawant
Patient Appointment Date : 2024-06-01
Doctor Name : Dr. Shahil Kadia
Patient Symptoms : Cough, cold, fever
Appointment Status : PENDING


MEDIMEETUP
Appointments
Logout
Welcome Back Doctor!
Doctor Name: Dr. Shahil Kadia
Pending Appointments
Patient ID : 12
Patient Name : Pranjali Sawant
Patient Appointment Date : 2024-06-01
Patient Symptoms : Cough, cold, fever
Scheduled Appointments


Back
Doctor's Appointment Scheduling
Patient ID
Patient Name
Preferred Date
Symptoms
Action
12
Pranjali Sawant
2024-06-01
Cough, cold, fever
Schedule
Schedule Appointment
Patient Name:
Pranjali Sawant
Patient ID:
12
Appointment Date:
01-06-2024
Appointment Time:
03:30 PM
Confirm Patient:
Accept Appointment
Submit
Close Form


MEDIMEETUP
Appointments
Logout
Welcome Back Doctor!
Doctor Name: Dr. Shahil Kadia
Pending Appointments
Scheduled Appointments
Patient ID : 12
Patient Name : Pranjali Sawant
Patient Appointment Date : 2024-06-01
Patient Appointment Time : 15:30
Patient Symptoms : Cough, cold, fever


MEDIMEETUP
Schedule Appointment
Logout
Welcome Back Patient!
Patient Name: Pranjali Sawant
Appointment Status
Patient ID : 12
Patient Name : Pranjali Sawant
Patient Appointment Date : 2024-06-01
Doctor Name : Dr. Shahil Kadia
Patient Symptoms : Cough, cold, fever
Appointment Status : ACCEPT

BENEFITS FOR PARTICIPANTS

MediMeetup, as an appointment scheduling website in India, offers several benefits for both patients and doctors:

- **Convenience**: Patients can book appointments with doctors at their preferred time and location, without the hassle of waiting in long queues or making multiple phone calls.
- **Time-saving**: By allowing patients to schedule appointments online, the platform saves time for both patients and doctors. Patients can quickly find available time slots that fit their schedule, while doctors can manage their appointments more efficiently.
- **Accessibility**: The website improves access to healthcare services, especially for individuals who may have mobility issues or live in remote areas. Patients can easily find and book appointments with specialist doctors regardless of their location.
- **Reduced No-shows**: With appointment reminders and confirmation features, MediMeetup helps reduce the number of missed appointments, ensuring that doctors' schedules are optimised and patients receive timely care.
- **Streamlined Process**: The platform simplifies the appointment booking process for both patients and doctors. Patients can search for doctors based on specialty, location, and availability, while doctors can manage their schedules and patient appointments from a centralised platform.
- **Improved Patient Experience**: The convenience and accessibility offered by MediMeetup contribute to a better overall patient experience. Patients appreciate the ease of booking appointments and the ability to see their doctors without long waiting times.

UNIQUE FEATURES

- **Multi-Specialty Doctors**: Medimeetup offers a wide range of doctors across various specialties, providing patients with a comprehensive choice of healthcare professionals.

- **Customizable Appointment Slots**: Patients have the flexibility to choose from a variety of time slots based on their convenience, allowing for personalised scheduling.

- **Instant Booking Confirmation**: Patients receive instant confirmation of their appointments upon booking, reducing waiting times and uncertainty.

- **Patient Dashboard**: Patients have access to a dashboard where they can manage their appointments, view past medical records

- **Increased Efficiency**: Doctors can better manage their time and resources by utilising the platform's scheduling tools. They can allocate specific time slots for different types of appointments, prioritise urgent cases, and reduce administrative overhead.

- **Patient Empowerment**: By giving patients control over their healthcare appointments, MediMeetup empowers them to actively participate in managing their health. Patients can review doctors' profiles, read reviews from other patients, and make informed decisions about their healthcare providers.

- **Security Measures:** Added hashing to passwords and sensitive data in unique features for privacy as well as improved security

Conclusion:

MediMeetUp innovatively goes about the process of setting up an appointment in an easy and creative way, allowing the doctors as well as patients to intuitively go about the process without any hassle and that too at their own convenience

By utilising various cutting edge technologies available for public use such as HTML, CSS, JavaScript, Flask, Sqlite3 we have ensured that the entire process from start to end is efficiently and smoothly running with minimal loss of time for either party

By prioritising convenience and allowing easy scheduling we have enhanced the accessibility and reduced wasted time online as well as reducing “No-Shows” or late comers. Making it a simple and possibly an essential tool for healthcare

Licence

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