

Ayurvedic Remedy Recommendation

CHAPTER 1

1.1. INTRODUCTION

In recent decades, there has been a significant resurgence in the global interest toward alternative and traditional healthcare systems, with Ayurveda—India’s ancient holistic healing science—gaining renewed relevance. Ayurveda is more than just a medical practice; it is a comprehensive system that integrates physical, mental, and spiritual well-being through natural remedies, balanced diets, detoxifying routines, and personalized lifestyle guidance. Despite its proven efficacy and growing acceptance, access to reliable Ayurvedic consultation and remedies remains a challenge, particularly in the digital age where patients often seek immediate, tailored health advice.

Simultaneously, the rapid advancement in Artificial Intelligence (AI), Machine Learning, and web development technologies has revolutionized multiple sectors, including healthcare. These technologies enable intelligent automation, real-time interaction, and massive data handling, all of which can be leveraged to enhance the reach and impact of Ayurveda. The convergence of AI with Ayurveda holds the promise of democratizing access to natural healing by providing accurate, personalized, and evidence-based recommendations through digital platforms.

This project A Platform for Ayurvedic Remedies and Formulations is designed as a web-based solution that acts as a bridge between ancient Ayurvedic knowledge and modern user expectations. It enables users to receive intelligent Ayurvedic health suggestions via a chatbot interface, connect with certified Ayurvedic doctors, and access educational blogs to improve awareness of natural healthcare. The inclusion of AyurBot, a conversational AI powered by the Groq API with LLaMA3-70B-8192 model, allows users to interact in real time and get remedy suggestions based on their symptoms, lifestyle inputs, and personal queries.

The platform further includes an appointment management system, where users can book consultations with practitioners, and doctors can manage their schedules and patient interactions. An Admin module maintains the integrity and oversight of the entire platform, from doctor verification to blog content moderation. The system has been built using React.js for the frontend, Node.js for backend operations, and MongoDB for data storage, ensuring both scalability and performance. Cloudinary is used for efficient media handling, especially user and blog images.

In essence, this thesis proposes a practical, intelligent, and user-friendly approach to making Ayurveda more accessible, interactive, and reliable. By digitizing Ayurveda through a robust technical architecture and AI-based interactions, the system contributes to the ongoing transformation of healthcare into a more inclusive, personalized, and preventive discipline.

1.2. PROBLEM STATEMENT

Despite the rich legacy and proven efficacy of Ayurveda in treating various ailments through natural means, accessibility, personalization, and awareness remain key challenges in the field. In the current healthcare landscape, modern systems have significantly embraced digitalization—offering features like online consultations, AI-based diagnostics, and digital health records. However, similar advancements in Ayurvedic healthcare are limited, particularly when it comes to real-time guidance, verified doctor consultations, and trustworthy remedy suggestions.

Several critical problems were identified during the initial research phase of this project:

1. LACK OF EASILY ACCESSIBLE AND PERSONALIZED AYURVEDIC GUIDANCE:

Most Ayurvedic knowledge is available in the form of generic articles, traditional texts, or unstructured forums. Users seeking personalized remedies must often rely on unauthenticated sources or make physical visits to clinics, which is inconvenient, especially in rural or remote areas.

2. ABSENCE OF AN INTELLIGENT SYSTEM FOR NATURAL REMEDY PREDICTION:

Unlike modern medicine, where symptom-checker apps and AI-driven diagnostics are increasingly common, Ayurveda lacks interactive tools that can analyze symptoms and recommend remedies aligned with Ayurvedic principles.

3. GAP BETWEEN USERS AND CERTIFIED AYURVEDIC PRACTITIONERS:

Users face difficulties in identifying and connecting with certified, experienced Ayurvedic doctors. There's also no unified system for managing appointments or doctor availability in this domain.

4. LIMITED AWARENESS OF AYURVEDIC PRACTICES IN THE DIGITAL SPACE:

While Ayurveda is experiencing renewed global interest, the dissemination of trustworthy content remains scattered. There's a lack of centralized platforms that combine educational blogs, user engagement, and expert insight.

5. MANUAL AND INEFFICIENT APPOINTMENT MANAGEMENT SYSTEMS:

For those trying to seek professional help, the appointment booking process is often manual, unstructured, or disconnected from modern scheduling tools. Doctors and patients cannot coordinate effectively without a streamlined digital interface.

1.3.OBJECTIVES

The primary objective of this project is to design and implement an AI-driven web platform that modernizes the access, delivery, and personalization of Ayurvedic healthcare services. By integrating intelligent systems and scalable web technologies, the project aims to bridge the gap between ancient Ayurvedic knowledge and the digital expectations of today's users.

1.3.1. GENERAL OBJECTIVE:

To develop an end-to-end A Platform for Ayurvedic Remedies and Formulations that provides users with personalized, reliable, and interactive natural health recommendations, along with access to certified Ayurvedic practitioners through an intuitive and secure digital platform.

1.3.2. SPECIFIC OBJECTIVES:

1. TO DESIGN AND INTEGRATE AYURBOT, AN INTELLIGENT AI-POWERED CHATBOT

- Build a responsive chatbot interface capable of interacting with users using natural language.
- Leverage the Groq API with the LLaMA3-70B-8192 model to generate context-aware, Ayurvedic remedy recommendations based on user symptoms.
- Ensure the chatbot's responses are aligned with authenticated Ayurvedic principles.

2. TO DEVELOP A USER-FRIENDLY APPOINTMENT BOOKING SYSTEM

- Allow users to view available doctors and request consultations based on time slots.
- Enable real-time notifications and allow doctors to accept or reject appointments.
- Store and manage appointment data securely in MongoDB for persistence.

3. TO IMPLEMENT A SECURE DOCTOR PAGE FOR PROFILE AND SCHEDULE MANAGEMENT

- Allow doctors to register, edit their profile, and manage availability.
- Give them access to view and respond to user appointment requests.

4. TO CREATE AN ADMIN PAGE FOR SYSTEM-WIDE CONTROL AND MODERATION

- Provide the admin with the ability to register and verify doctors.

- Allow admin to monitor appointment activities and manage blog content for quality assurance.

5. TO INCORPORATE A DYNAMIC AND INFORMATIVE BLOG SECTION

- Curate and display articles related to Ayurvedic principles, treatments, and healthy lifestyle tips.
- Promote Ayurvedic awareness through verified educational content.
- Store blog data efficiently and support image hosting via Cloudinary.

6. TO BUILD A SCALABLE AND RESPONSIVE FRONTEND USING REACT.JS

- Ensure seamless user experience across different modules (User, Doctor, Admin).
- Implement role-based access and navigation tailored to each user type.

7. TO IMPLEMENT A ROBUST BACKEND USING NODE.JS AND EXPRESS.JS

- Handle API requests, user authentication, and secure data flow.
- Integrate with MongoDB for storing user records, doctor profiles, and appointment logs.

8. TO ENSURE PLATFORM SCALABILITY, MODULARITY, AND SECURITY

- Use Cloudinary for efficient image storage.
- Implement role-based access control and session validation.
- Design the platform with future enhancements in mind, including video consultations and multilingual support.

Outcome:

By achieving these objectives, the project aims to deliver a holistic and digital Ayurvedic platform that empowers users, supports practitioners, and promotes traditional healthcare using modern tools and AI intelligence.

1.4. SCOPE OF THE PROJECT

The A Platform for Ayurvedic Remedies and Formulations has been conceptualized and developed with a clear set of boundaries to ensure the effective delivery of core functionalities. The project lies at the intersection of Artificial Intelligence, web

development, and Ayurvedic healthcare, aiming to make traditional healing methods accessible through a modern digital platform. The scope defines what the system intends to accomplish, who its primary users are, and what technologies and features are integrated within the solution.

1.4.1. FUNCTIONAL SCOPE

1. USER MODULE

- Users can interact with AyurBot, the AI-powered chatbot, to receive personalized Ayurvedic remedies based on symptoms and queries.
- Users can browse through the Blog Section, which hosts educational articles related to Ayurvedic health practices, herbs, and lifestyle guidance.
- An Appointment Booking System allows users to select doctors, choose available time slots, and request consultations.
- Users are notified of appointment status (accepted/rejected) through the system.

2. DOCTOR MODULE

- Doctors can register, manage their profiles, and define their availability schedules.
- They can view incoming appointment requests and accept or reject them as per their availability.
- Doctors have access to view patient symptoms and queries for better consultation preparation.

3. ADMIN MODULE

- The admin has the authority to add, verify, or remove doctors from the system.
- Admins can oversee all appointments, ensuring the integrity and functionality of the consultation process.
- They are responsible for managing and moderating blog content and system usage statistics.

4. AI INTEGRATION

- The system includes AyurBot, which utilizes the Groq API with the LLaMA3-70B-8192 model to process user input and generate Ayurvedic remedy recommendations.

- AI functionality is integrated seamlessly with the frontend to offer real-time, conversational assistance.

5. TECHNOLOGICAL INFRASTRUCTURE

- **Frontend:** Developed using React.js, ensuring a responsive and intuitive user interface across all modules.
- **Backend:** Built with Node.js and Express.js, handling all server-side logic, database queries, and API endpoints.
- **Database:** MongoDB is used for managing and storing structured data related to users, doctors, appointments, and blog content.
- **Image Hosting:** Cloudinary is used for storing profile pictures, blog images, and other visual content.

1.5. ADVANTAGES OF THIS PLATFORM

The A Platform for Ayurvedic Remedies and Formulations offers several notable advantages, both from a technological perspective and in terms of improving accessibility and user experience in the realm of Ayurvedic healthcare. By integrating modern web technologies, artificial intelligence, and traditional Ayurvedic principles, this platform provides distinct benefits to its users, doctors, and administrators.

1.5.1. PERSONALIZED HEALTH RECOMMENDATIONS

One of the most significant advantages of this platform is the personalization it offers through the AyurBot AI chatbot. Traditional Ayurvedic treatments often require a comprehensive understanding of an individual's unique constitution, lifestyle, and symptoms. AyurBot, powered by the Groq API with the LLaMA3-70B-8192 model, enables users to receive highly personalized remedy suggestions tailored to their specific health conditions, making it far more efficient than generic or one-size-fits-all recommendations. This level of personalization is typically unavailable in traditional online platforms or healthcare services, especially when it comes to natural remedies.

1.5.2. IMPROVED ACCESS TO AYURVEDIC PRACTITIONERS

This platform significantly enhances accessibility to certified Ayurvedic doctors. Through the appointment booking system, users can easily find and connect with practitioners without the need for physical visits or geographical limitations. Whether in rural areas or busy urban settings, users can consult with doctors who are registered

and verified on the platform. By making Ayurvedic consultations more accessible, this system helps bridge the gap between traditional healthcare practices and modern-day users, who may otherwise have limited access to Ayurvedic services.

1.5.3. INCREASED AWARENESS OF AYURVEDIC PRACTICES

Through the Blog Section, the platform plays a vital role in educating users about Ayurveda, its principles, and natural remedies. The blog provides easy-to-understand articles, expert opinions, and health tips that raise awareness about preventive health and holistic wellness. Users not only gain access to remedies but also become better informed about the benefits of Ayurvedic living and the connection between diet, lifestyle, and overall well-being. This educational aspect helps in spreading Ayurvedic knowledge to a global audience, many of whom may not be familiar with or may misunderstand the practice.

1.5.4. CONVENIENCE AND TIME EFFICIENCY

The appointment management system allows both doctors and users to save significant time compared to traditional consultation methods. Users can request appointments at their convenience, select available time slots, and receive notifications about the status of their appointment. Doctors, on the other hand, can manage their schedules without the hassle of coordinating through phone calls or physical meetings. This level of efficiency is a clear improvement over conventional appointment systems, which often involve delays and manual processes.

1.5.5. CENTRALIZED PLATFORM FOR MULTIPLE SERVICES

The integration of multiple services—personalized remedies, appointments, and educational content—into a single, cohesive platform reduces the need for users to visit multiple websites or applications for different aspects of their health journey. This centralization improves user experience by providing a seamless, all-in-one solution for healthcare management. Users can consult AyurBot, book appointments, and read educational content in one place, thereby increasing engagement and satisfaction with the platform.

1.5.6. SCALABILITY AND FLEXIBILITY

The system is designed to be scalable, with the potential for future enhancements such as video consultations, multilingual support, and integration with other healthcare systems. Built on modern technologies such as React.js for the frontend and Node.js for the backend, the platform can easily accommodate growing user and doctor bases. This flexibility ensures that the platform can evolve in response to future needs and advancements in both technology and healthcare practices.

1.5.7. SECURE DATA MANAGEMENT

The use of MongoDB for data storage ensures that all personal information, appointment records, and blog content are securely stored and easily retrievable. The platform implements role-based access control, meaning that different users (e.g., doctors, users, and admins) have specific permissions, ensuring that sensitive information is kept private. This data security is crucial in building trust with users and ensuring compliance with relevant data protection regulations.

1.5.8. PROMOTING PREVENTIVE HEALTH CARE

Ayurveda places a strong emphasis on preventive care rather than reactive treatments. Through the chatbot, users receive proactive advice on maintaining their health and lifestyle, helping them avoid illnesses before they occur. This focus on prevention is in stark contrast to the traditional medical model, which often emphasizes treatment after the onset of disease. By promoting Ayurvedic principles of maintaining balance and wellness, the platform encourages users to adopt healthier lifestyles that reduce their risk of chronic conditions.

1.6. METHODOLOGY OVERVIEW

The methodology for developing the Platform for Ayurvedic Remedies and Formulations is based on an integrated approach that combines traditional Ayurvedic knowledge with advanced Artificial Intelligence (AI) and modern web development practices. The system is built with a focus on providing personalized Ayurvedic health recommendations, facilitating doctor consultations, and educating users through interactive content. This methodology ensures that the platform is both technically robust and user-friendly.

1.6.1. SYSTEM DESIGN AND ARCHITECTURE

The system follows a three-tier architecture, consisting of:

1. FRONTEND (CLIENT-SIDE):

The frontend is built using React.js, a JavaScript library for creating dynamic and responsive user interfaces. React.js provides the flexibility needed for creating interactive components such as the AyurBot chatbot, the Appointment Booking System, and the Blog Section. This layer is responsible for user interaction, data presentation, and invoking backend services through RESTful APIs.

2. BACKEND (SERVER-SIDE):

The backend is powered by Node.js and Express.js, which manage server-side logic, handle requests, and serve the required data to the frontend. The backend ensures smooth interaction with the database (MongoDB), manages user authentication and authorization, and coordinates the interaction between users, doctors, and admins.

Additionally, it integrates with the Groq API to fetch personalized Ayurvedic remedies from the LLaMA3-70B-8192 model.

3. DATABASE:

MongoDB, a NoSQL database, is used to store data related to users, doctors, appointments, and blog content. MongoDB's flexibility allows for easy scalability and rapid data retrieval, which is essential for managing user interactions, appointment scheduling, and blog posts. It also ensures fast updates and queries for real-time responses from the AyurBot.

1.6.2. AI INTEGRATION (AyurBot)

A central feature of the platform is the AyurBot—an AI-powered chatbot that provides personalized Ayurvedic remedies based on user input. The methodology behind AyurBot's development involves:

1. DATA COLLECTION:

To train the AI model, AyurBot relies on a combination of curated Ayurvedic data, including texts from ancient scriptures such as Charaka Samhita and Sushruta Samhita, along with modern health data. This data is used to develop a model that recognizes patterns in user symptoms and matches them with appropriate remedies.

2. API INTEGRATION:

AyurBot is powered by the Groq API, which integrates the LLaMA3-70B-8192 model for Natural Language Processing (NLP). This model allows AyurBot to understand user queries, extract relevant symptoms, and offer personalized Ayurvedic suggestions. The integration ensures that the chatbot is context-aware and responsive to user input.

3. CONTINUOUS LEARNING:

AyurBot is designed to continuously improve its responses through user feedback and ongoing updates to the training dataset. The more users interact with AyurBot, the better it becomes at understanding diverse health conditions and offering accurate remedies.

1.6.3. USER AUTHENTICATION AND ROLE-BASED ACCESS

A critical aspect of the platform is the implementation of role-based access control (RBAC) to ensure the secure management of data and functionality:

1. USER ROLE:

Users can register on the platform and interact with AyurBot, book appointments, and read blog articles. They have limited access to personal data and only interact with system features relevant to their role.

2. DOCTOR ROLE:

Doctors can register, update their profiles, and manage their availability. They can also view and respond to user appointment requests. Doctor data, including availability, specialty, and profile pictures, is securely stored and made accessible only to authenticated users.

3. ADMIN ROLE:

Admins have full access to the platform's control features. They can register and approve doctors, manage appointments, and moderate the blog section. Admins are also responsible for ensuring the smooth operation of the platform and resolving any issues that arise.

1.6.4. APPOINTMENT SYSTEM AND NOTIFICATION WORKFLOW

The Appointment System is designed to handle scheduling and notifications efficiently. The methodology includes:

1. APPOINTMENT BOOKING:

Users can view available doctors and request appointments by selecting time slots. The system checks for doctor availability and allows users to submit their requests.

2. NOTIFICATIONS:

Upon receiving an appointment request, the doctor gets notified via the backend. They can then accept or reject the request. Notifications are also sent to users confirming their appointment status, ensuring smooth communication between doctors and patients.

1.6.5. CLOUD INTEGRATION FOR IMAGE HOSTING

The system uses Cloudinary to handle image storage and management, ensuring that profile images, blog post illustrations, and other multimedia content are served efficiently. Cloudinary allows for optimized image delivery, reducing load times and improving the overall user experience.

1.6.6. TESTING AND VALIDATION

The platform undergoes rigorous unit testing and integration testing to ensure that each module functions as expected. The AI model is also validated with real-world user data to ensure its accuracy and relevance. User feedback is gathered during the testing phase to refine the system and make improvements.

CHAPTER 2

BACK GROUND AND LITERATURE REVIEW

2.1. BACK GROUND

2.1.1. ORIGIN AND FUNDAMENTALS OF AYURVEDA

Ayurveda, translated as “the science of life,” is an ancient Indian system of medicine with a history spanning over 5,000 years. Developed from Vedic scriptures such as the Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya, Ayurveda is a holistic healing approach that focuses on achieving balance among the body, mind, and spirit. It emphasizes individualized treatments, including herbal remedies, dietary practices, yoga, and meditation.

Central to Ayurvedic philosophy are the three doshas—Vata, Pitta, and Kapha—which represent different combinations of the five basic elements (earth, water, fire, air, and ether). Maintaining equilibrium among these doshas is believed to be essential for good health and disease prevention.

2.1.2. RISE OF DIGITAL HEALTH SOLUTIONS

The digital transformation in healthcare has dramatically changed how medical services are accessed and delivered. With advancements in technologies such as Artificial Intelligence (AI), Natural Language Processing (NLP), and cloud computing, web-based platforms now offer intelligent and real-time support for both patients and practitioners. These innovations have empowered users to track their health, consult doctors remotely, and even receive predictive analysis for symptoms. However, the incorporation of such technologies in traditional systems like Ayurveda has been relatively slow, despite the increasing demand for alternative therapies.

2.1.3. CHALLENGES IN ACCESSING AYURVEDIC CARE

While Ayurveda continues to grow in global recognition, accessibility remains a major challenge. In many regions, there is a lack of certified Ayurvedic practitioners, and existing consultation processes can be time-consuming and geographically constrained. Moreover, most of the Ayurvedic knowledge is scattered in texts and lacks a structured digital format, limiting its reach among younger, tech-oriented audiences.

Users often rely on unverified online content or over-the-counter herbal products without proper diagnosis, which can lead to misuse and mistrust in the system. Therefore, there is a strong need for a verified, interactive, and user-centric platform that bridges this gap.

2.1.4. ROLE OF AI IN PERSONALIZED AYURVEDIC CARE

Artificial Intelligence, especially large language models like LLaMA3-70B-8192 integrated via the Groq API, presents a transformative opportunity for Ayurveda. These models can simulate human-like conversations, interpret symptoms described in natural language, and recommend Ayurvedic remedies based on large datasets of traditional knowledge.

2.1.5. PURPOSE OF THIS PLATFORM

A Platform for Ayurvedic Remedies and Formulations has been designed to serve as a bridge between ancient Ayurvedic wisdom and modern digital convenience. It aims to make Ayurvedic guidance accessible, trustworthy, and interactive by combining a smart AI chatbot (AyurBot) with appointment booking features, verified doctor listings, and a blog section for awareness.

2.2. LITERATURE REVIEW

2.2.1. INTRODUCTION

The integration of Artificial Intelligence (AI) with traditional medicine has emerged as a powerful approach to enhance healthcare accessibility, personalization, and efficiency. Ayurveda, one of the world's oldest holistic healing systems, has remained largely underrepresented in digital healthcare solutions. This chapter explores existing literature and research in areas such as AI in healthcare, Ayurvedic informatics, chatbot-based consultation systems, and web-based health platforms. The purpose is to identify the technological gaps this project aims to fill and understand the foundation upon which the current system is built.

2.2.2. AYURVEDA AND DIGITAL TRANSFORMATION

Ayurveda is based on ancient Indian texts such as the Charaka Samhita and Sushruta Samhita, which describe disease diagnosis and treatment through natural and lifestyle-based approaches. However, these texts are complex and not easily accessible or interpretable by the general public. Previous research, such as the works by Sharma et al. (2018), has attempted to digitize Ayurvedic data for broader use. Projects like AYUSH's digital library and online herbal databases have laid the groundwork, yet lack user interactivity or real-time guidance.

2.2.3. AI IN HEALTHCARE AND NATURAL REMEDY SYSTEMS

Artificial Intelligence has been extensively used in modern healthcare for tasks like diagnosis, treatment planning, and patient monitoring. According to a review by Patel et al. (2020), AI-driven systems can outperform traditional diagnosis methods in

consistency and scalability. Some systems, such as IBM's Watson for Oncology, have demonstrated how AI can support medical decisions. However, limited studies have explored AI's potential in Ayurveda. A study by Singh et al. (2021) developed a rule-based recommendation engine for herbal treatments, but lacked conversational capabilities.

2.2.4. HEALTH CHATBOTS AND CONVERSATIONAL INTERFACES

Chatbots have increasingly been adopted in healthcare to provide symptom checking, patient engagement, and mental health support. Notable examples include Babylon Health and Ada. These bots, however, are designed primarily for allopathic medicine. Integrating a chatbot specifically for Ayurveda is relatively novel. LLMs (Large Language Models) such as GPT-3 and LLaMA3 offer the potential to understand user intent and provide context-aware responses, making them ideal for natural remedy guidance. The AyurBot in this project uniquely leverages this capacity through the Groq API with the LLaMA3-70B-8192 model.

2.2.5. EXISTING WEB PLATFORMS FOR HEALTHCARE

Many web-based platforms allow users to book doctor appointments or read health blogs are prominent in India. However, these platforms are not Ayurvedic-specific, and rarely offer personalized natural remedy suggestions. They lack AI integration for interactive consultations.

2.2.6. RESEARCH GAPS IDENTIFIED

From the review of related works, the following gaps were identified:

- Absence of interactive AI-based Ayurvedic consultation systems.
- Lack of integration between doctor scheduling, educational content, and remedy prediction in a single platform.
- Inadequate use of LLMs for domain-specific health guidance in natural medicine.

2.2.7. Conclusion

The literature reveals a strong foundation in AI healthcare applications but a clear gap in applying these technologies to Ayurveda. This project addresses these gaps by creating a unified platform that integrates AI-powered symptom analysis, real-time doctor interaction, and informative blogs tailored to Ayurvedic science.

CHAPTER 3

SYSTEM DESIGN AND ARCHITECTURE

3.1. OVERVIEW OF SYSTEM DESIGN

The Ayurvedic Remedy Prediction System has been carefully designed using a modular, service-based architecture that separates concerns across different functional layers. This modularity allows for easier maintenance, scalability, and seamless integration of Artificial Intelligence (AI) services with traditional web functionalities. The system is composed of three major modules: the User Module, Doctor Module, and Admin Module, each serving a unique role within the platform. These modules are connected through RESTful APIs that ensure smooth communication between the frontend and backend services.

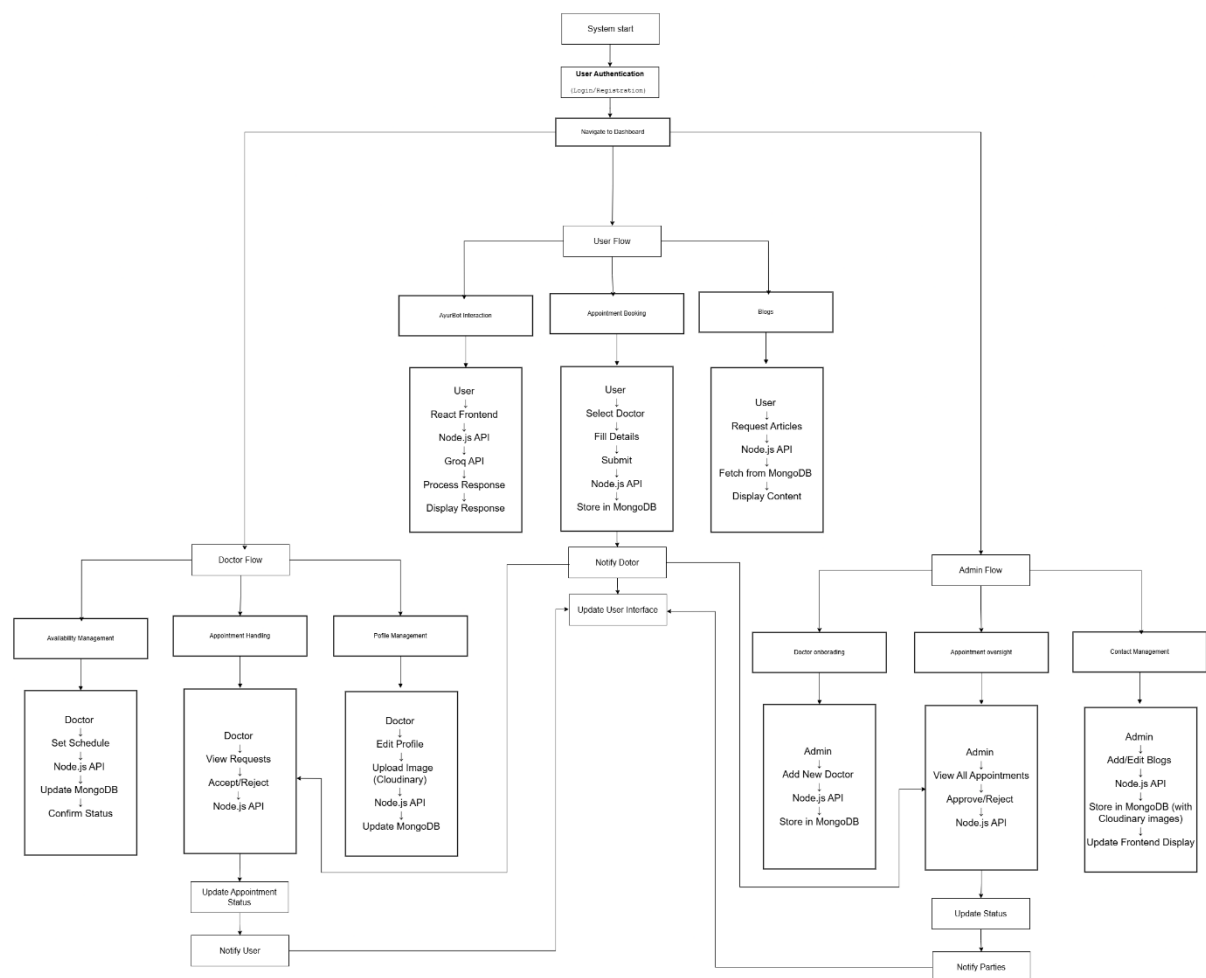


Fig 1: Block Diagram

3.2. FUNCTIONAL ARCHITECTURE

3.2.1. USER MODULE

The User Module is the primary interface for the general public. It consists of:

- **AyurBot Chat Interface:** Powered by the Groq API using the LLaMA3-70B-8192 model, it interprets user symptoms and provides personalized Ayurvedic remedy suggestions.
- **Appointment Section:** Allows users to browse certified doctors, request appointments, and receive confirmations or rejections.
- **Blog Section:** Provides curated articles on Ayurvedic health, remedies, and lifestyle tips

3.2.2. DOCTOR MODULE

The Doctor Module is tailored for Ayurvedic practitioners. It includes:

- **Profile Management:** Enables doctors to edit their specialization, consultation timings, and other personal details.
- **Appointment Dashboard:** Doctors receive, accept, or reject appointment requests from users in real-time.

3.2.3. ADMIN MODULE

The Admin Module provides administrative control over the platform:

- **Doctor Registration and Verification:** Admins can approve new doctor profiles and maintain the integrity of the platform.
- **Appointment Monitoring:** Admins oversee all appointment-related activities to prevent misuse and ensure accountability.

3.3. TECHNICAL ARCHITECTURE

3.3.1. FRONTEND

The frontend is developed using React.js, chosen for its component-based structure and dynamic rendering capabilities. It provides a responsive interface optimized for both desktop and mobile devices. The frontend interacts with the backend via HTTP requests using Axios or fetch.

3.3.2. BACKEND

The backend is built using Node.js with the Express.js framework. It manages user authentication, session handling, appointment scheduling, and CRUD operations for blog posts and doctor profiles. Backend APIs are also responsible for connecting to the Groq API to process chatbot requests.

3.3.3. DATABASE

The system uses MongoDB, a NoSQL database, to store:

- User and doctor profiles
- Appointment records
- Blog articles

MongoDB is selected for its flexibility and ease of scaling with document-based data structures.

3.3.4. IMAGE HOSTING

Cloudinary is used to host profile images, blog thumbnails, and other media files. It integrates easily with both frontend and backend components.

3.3.5. AI INTEGRATION

The Groq API, running the LLaMA3-70B-8192 model, is integrated into the AyurBot chatbot. It processes natural language queries and returns Ayurvedic remedy suggestions in real time.

3.4. SECURITY AND ACCESS CONTROL

The platform uses role-based access control:

- Users have access to chat, blogs, and appointment booking.
- Doctors access their dashboard and patient requests.
- Admins have elevated privileges to manage system-wide functions.

3.5.CONCLUSION

The architecture of the Ayurvedic Remedy Prediction System ensures robust, scalable, and secure operation. It effectively combines modern web technologies with AI capabilities to deliver a seamless experience that empowers users to explore natural health remedies and consult trusted professionals.

CHAPTER 4

IMPLEMENTATION

4.1. DEVELOPMENT ENVIRONMENT

The platform for Ayurvedic Remedies and Formulations was developed using a modern technology stack suited for rapid development, scalability, and ease of integration. The frontend was built using React.js, the backend using Node.js with Express.js, and MongoDB served as the primary database. Cloudinary was used for managing images, and the Groq API was integrated to power the AyurBot chatbot using the LLaMA3-70B-8192 model.

Development was carried out in a modular manner, ensuring that each component—Admin, Doctor, and User—could be implemented, tested, and maintained independently.

4.2. FRONTEND IMPLEMENTATION

The frontend is organized into reusable React components that handle layout, navigation, form input, and data rendering. Key frontend features include:

- **Routing:** Implemented using React Router for smooth navigation between pages (Home, Login, Dashboard, Blog, etc.).
- **State Management:** Local state is managed using React hooks, and global state (such as user sessions) is handled using Context API and Redux where needed.
- **UI Elements:** Styled with modern CSS and component libraries to ensure responsive design across devices.
- **Form Validation:** Performed using Formik and Yup for appointment forms and login pages.

4.3. BACKEND IMPLEMENTATION

The backend server was developed using the Express.js framework. It manages API endpoints and handles logic for user authentication, appointment scheduling, doctor registration, and blog operations.

Key Functional Routes:

- `/api/auth/` → Handles login, registration, and authentication tokens using JWT.
- `/api/users/` → Manages user profile and appointment requests.
- `/api/doctors/` → Manages doctor profiles, availability, and responses to appointments.
- `/api/admin/` → Enables admin to verify doctors and monitor appointments.

Middleware was added to verify authentication tokens and protect sensitive endpoints. CORS headers were configured to ensure secure communication between frontend and backend.

4.4. DATABASE DESIGN (MONGODB)

MongoDB collections were structured to ensure flexibility and efficiency. Key collections include:

- **Users:** Stores user profiles, login credentials (hashed), and appointment history.
- **Doctors:** Stores doctor details including qualifications, availability, and responses.
- **Appointments:** Captures doctor-user interactions, status (pending/accepted/rejected), and timestamps.
- **Blogs:** Stores blog titles, content, images (Cloudinary URL), and timestamps.

Relationships are maintained through ObjectIds that link users and doctors to appointment records.

4.5. AYURBOT CHATBOT INTEGRATION

AyurBot is implemented as a conversational interface embedded within the User Dashboard. The flow is as follows:

- **User Query:** The user types a symptom or health concern.
- **API Call:** The frontend sends the query to the backend, which then forwards it to the Groq API.
- **AI Response:** The LLaMA3-70B-8192 model processes the input and returns a remedy suggestion.

- **Frontend Display:** The response is rendered in the chat window in a conversational format.

Proper error handling was implemented for failed API requests, and conversation history is temporarily cached for session continuity.

4.6. APPOINTMENT WORKFLOW

- A user selects a doctor and submits an appointment request through a calendar-based form.
- The request is saved in the database with status “Pending.”
- The selected doctor is notified and can accept or reject the request.
- The updated status is reflected on both the user and doctor dashboards.
- Admins can oversee this flow and step in if necessary.

4.7. IMAGE HOSTING WITH CLOUDINARY

All images, including doctor profile photos and blog illustrations, are uploaded directly to Cloudinary. URLs are then stored in MongoDB and retrieved when rendering content. This reduces load on the backend and speeds up image delivery.

4.8. AUTHENTICATION AND SECURITY

Authentication was implemented using JWT for session tokens and bcrypt for secure password hashing. Protected routes on the backend verify tokens before granting access, ensuring data security for all modules.

CHAPTER 5

RESULT

This chapter outlines the practical implementation of the Ayurvedic Remedy Recommendation System. The project includes three modules -- Admin, Doctors, and Users, each with its own login system and feature-rich dashboard. The system is designed to provide Ayurvedic recommendations based on symptoms, allow patients to book appointments with certified doctors, and give admins full control over the platform's management.

5.1. ADMIN MODULE

5.1.1. ADMIN LOGIN PAGE

- **Type:** Admin Page/Login
- **Description:** This is the secure login interface for the system administrator. The admin must enter a registered email ID and password to access the backend.
- **Function:** Enables access to the Admin Dashboard to manage doctors, appointments, and system data.

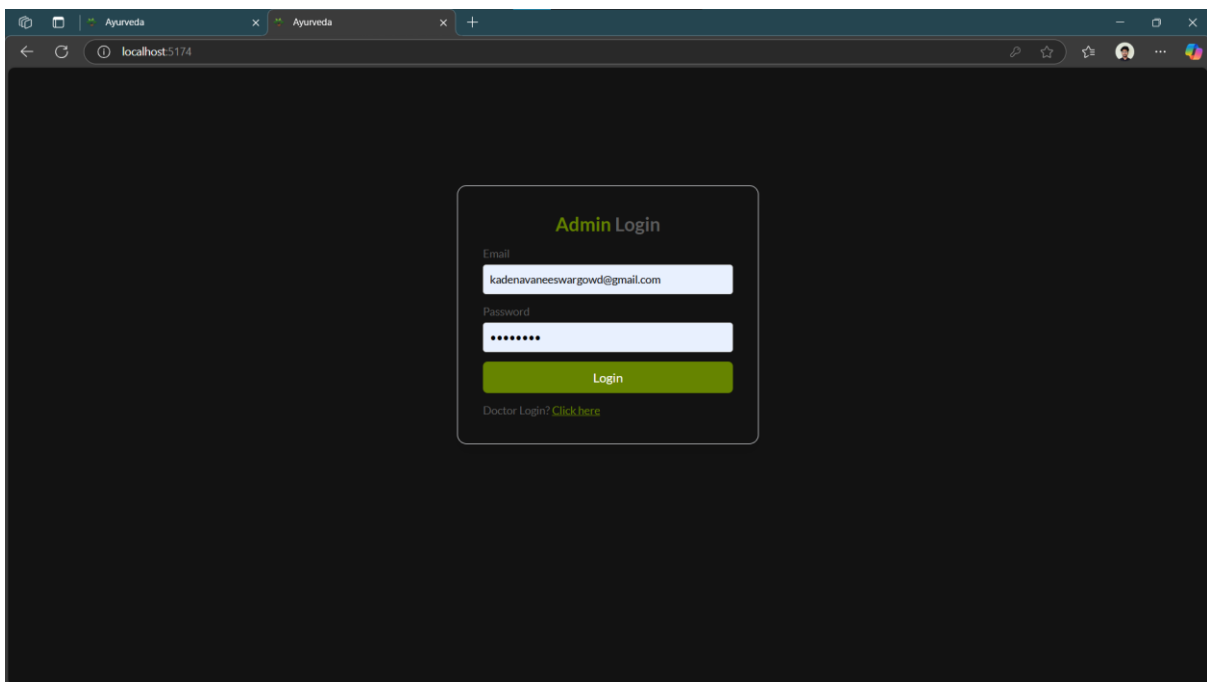


Fig 2: Admin Login page

5.1.2. ADMIN DASHBOARD

- **Type:** Admin Interface
- **Description:** After logging in, the admin is directed to a structured dashboard. It contains navigation panels to manage doctors, view appointments, and oversee user activity.
- **Function:** Acts as the control panel of the application where the admin oversees all user and doctor interactions, manages records, and ensures platform integrity.

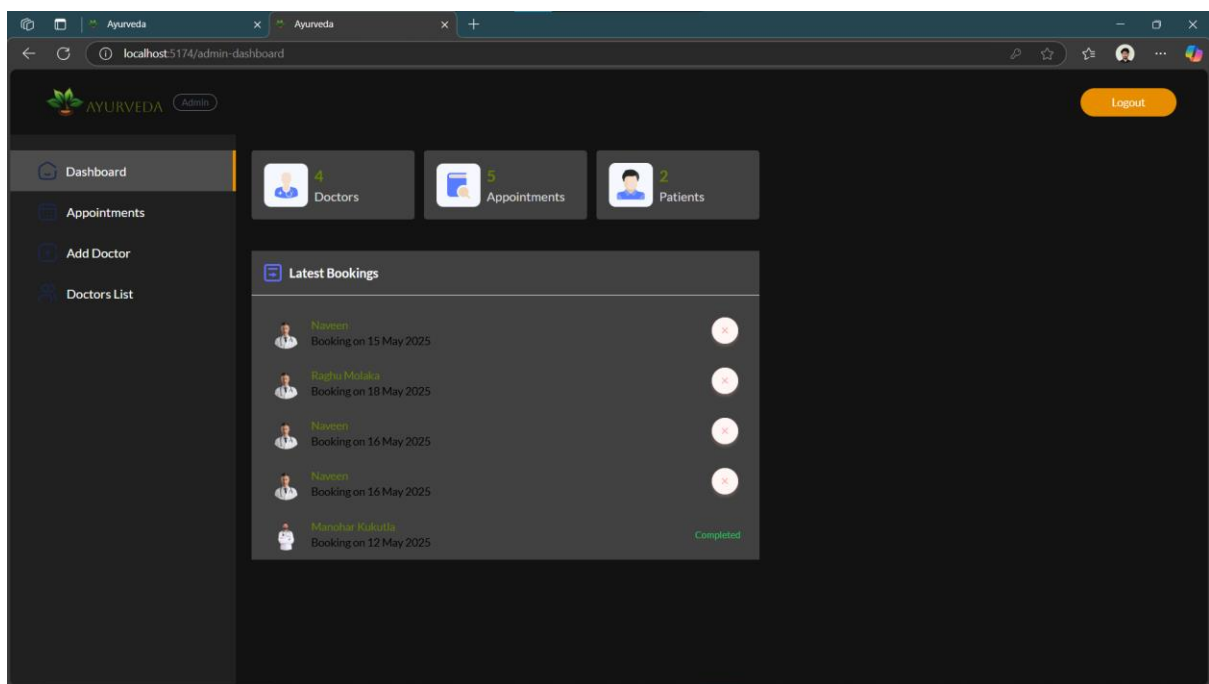


Fig 3: Admin Dashboard

5.1.3. APPOINTMENTS

- **Type:** Admin Interface
- **Description:** Displays a list of all user appointments booked through the platform.
- **Function:** Admin can view appointment statuses, doctor assignments, and patient details to ensure smooth operation.

#	Patient	Age	Date & Time	Doctor	Fees	Action
1	Manohar	21	15 May 2025, 04:30 pm	Naveen	₹400	
2	Manohar	21	18 May 2025, 12:00 pm	Raghu Molaka	₹200	
3	Manohar	21	16 May 2025, 10:30 am	Naveen	₹400	
4	Patient1	NaN	16 May 2025, 11:00 am	Naveen	₹400	
5	Patient1	NaN	12 May 2025, 07:30 pm	Manohar Kukutla	₹500	Completed

Fig 4: Appointments

5.1.4. ADD DOCTOR

- **Type:** Admin Interface
- **Description:** Form interface to add new doctors to the platform. Fields include doctor name, specialty, availability, contact details, and profile picture.
- **Function:** Enables the admin to onboard Ayurvedic professionals into the system.

Add Doctor

Doctor Email: admin@example.com

Set Password:

Experience: 1 Year

Fees: Doctor fees

Degree: Degree

Address: Address 1, Address 2

About Doctor: write about doctor

Add doctor

Fig 5: Adding Doctors

5.1.5. DOCTOR LIST

- **Type:** Admin Interface
- **Description:** Displays all registered doctors in a tabular view, along with their details like name, specialization, contact, and actions (edit/delete).
- **Function:** Helps the admin maintain and update the doctor database effectively.

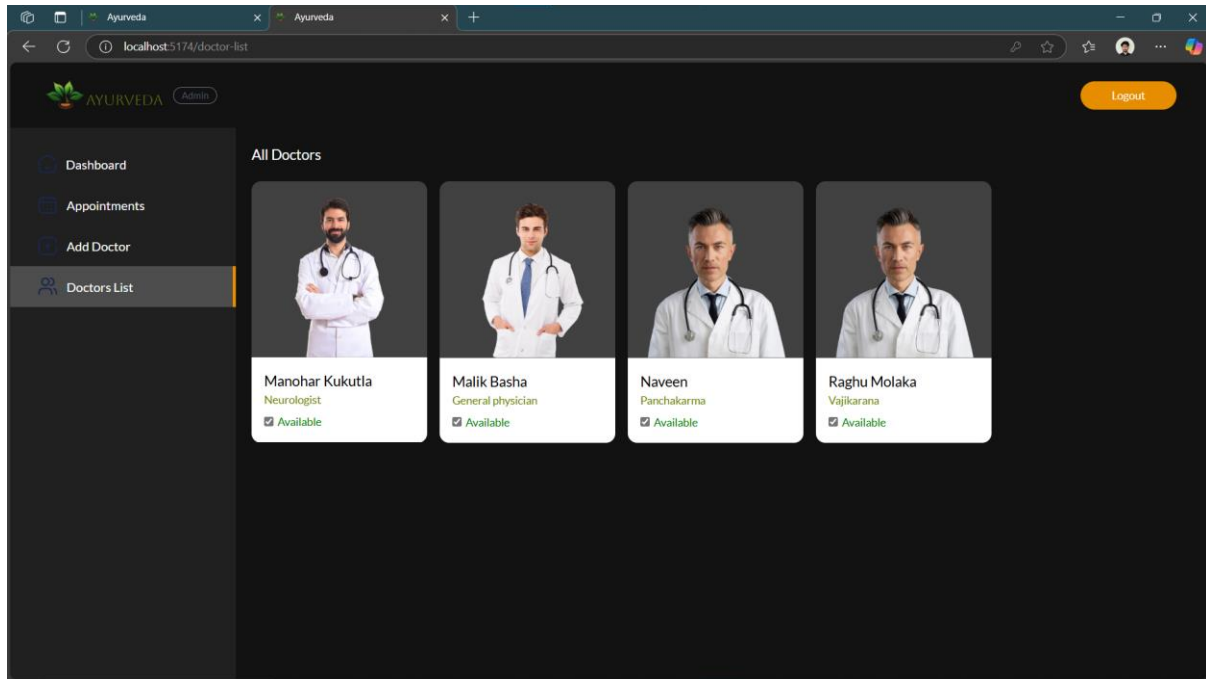


Fig 6: Doctor List

5.2. DOCTOR MODULE

5.2.1. DOCTOR LOGIN

- **Type:** Doctor Page/Login
- **Description:** This is a login page for certified Ayurvedic doctors. Each doctor uses their credentials to access their personalized dashboard.
- **Function:** Secures doctor access and filters user permissions.

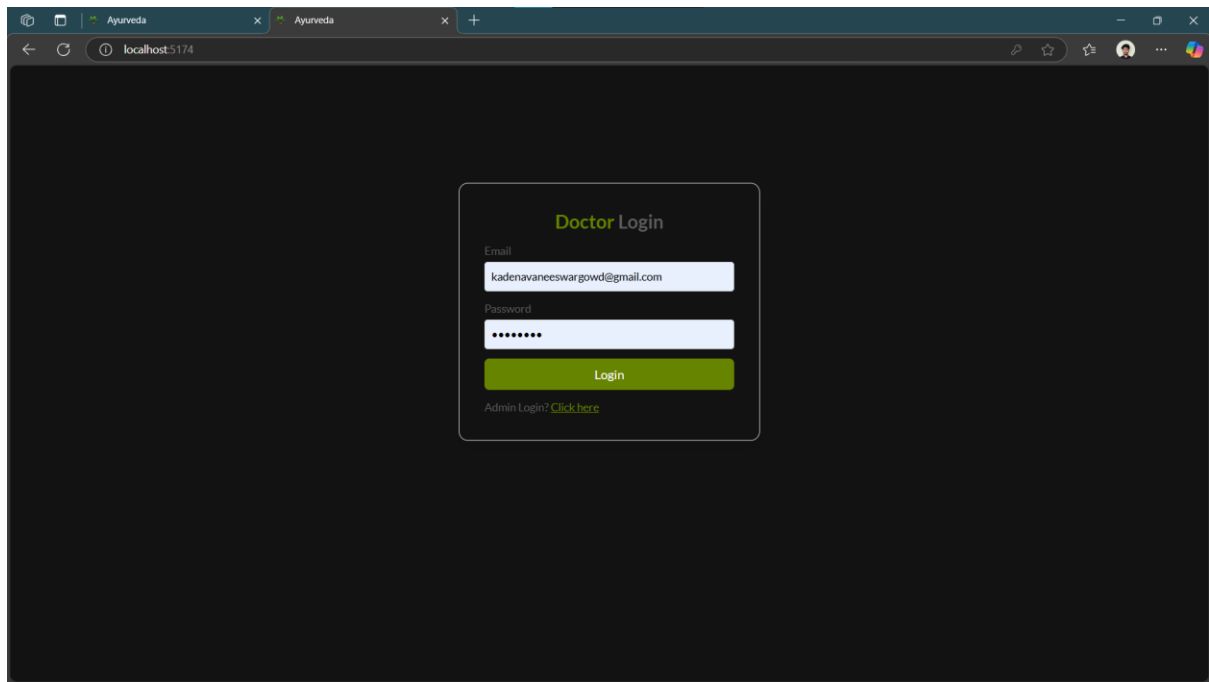


Fig 7: Doctor Login

5.2.2. DOCTOR DASHBOARD

- **Type:** Doctor Interface
- **Description:** A clean, intuitive dashboard for doctors, showing upcoming appointments, profile settings, and patient requests.
- **Function:** Allows doctors to monitor their schedule, update their availability, and manage patient consultations.

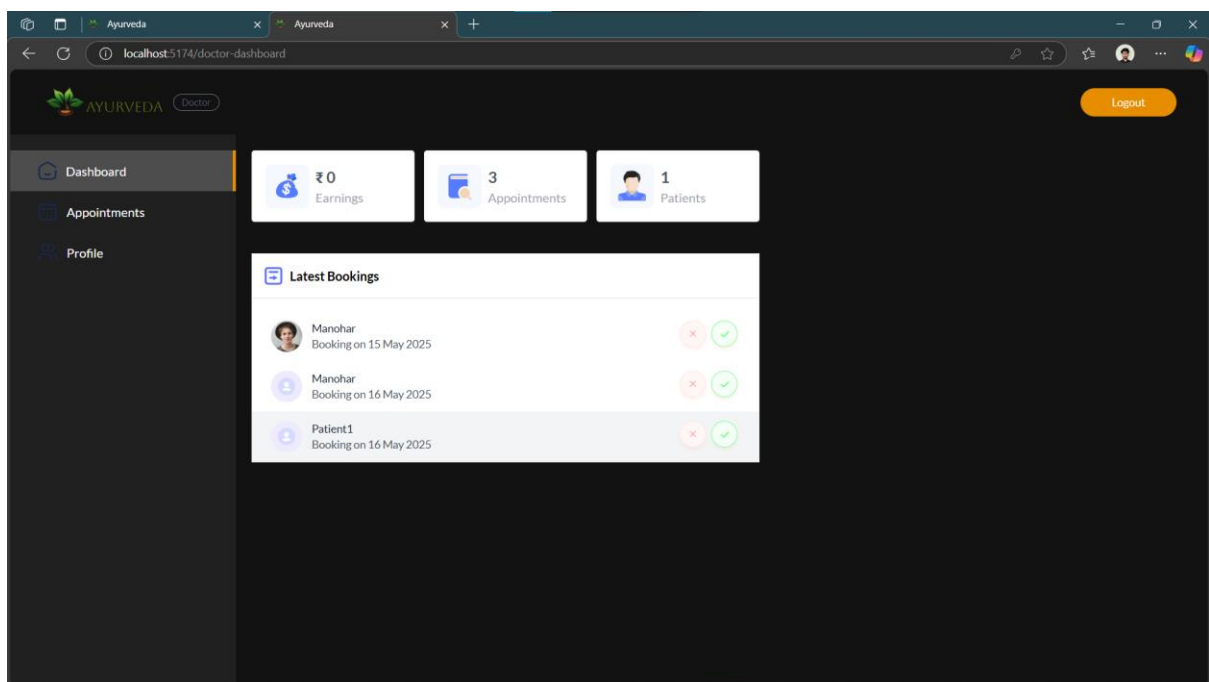


Fig 8: Doctor Dashboard

5.2.3. APPOINTMENTS

- **Type:** Doctor Interface
- **Description:** Lists all booked appointments with user details like date, time, symptoms, and consultation status.
- **Function:** Enables doctors to prepare in advance and manage patient care.

#	Patient	Payment	Age	Date & Time	Fees	Action
0	Manohar	CASH	21	15 May 2025, 04:30 pm	₹400	
1	Manohar	CASH	21	16 May 2025, 10:30 am	₹400	
2	Patient1	CASH	NaN	16 May 2025, 11:00 am	₹400	

Fig 9: Appointments

5.2.4. DOCTOR PROFILE

- **Type:** Doctor Interface
- **Description:** Displays personal details of the doctor, such as name, qualifications, specialization, email, and contact info.
- **Function:** Allows doctors to keep their professional information updated and visible to users.

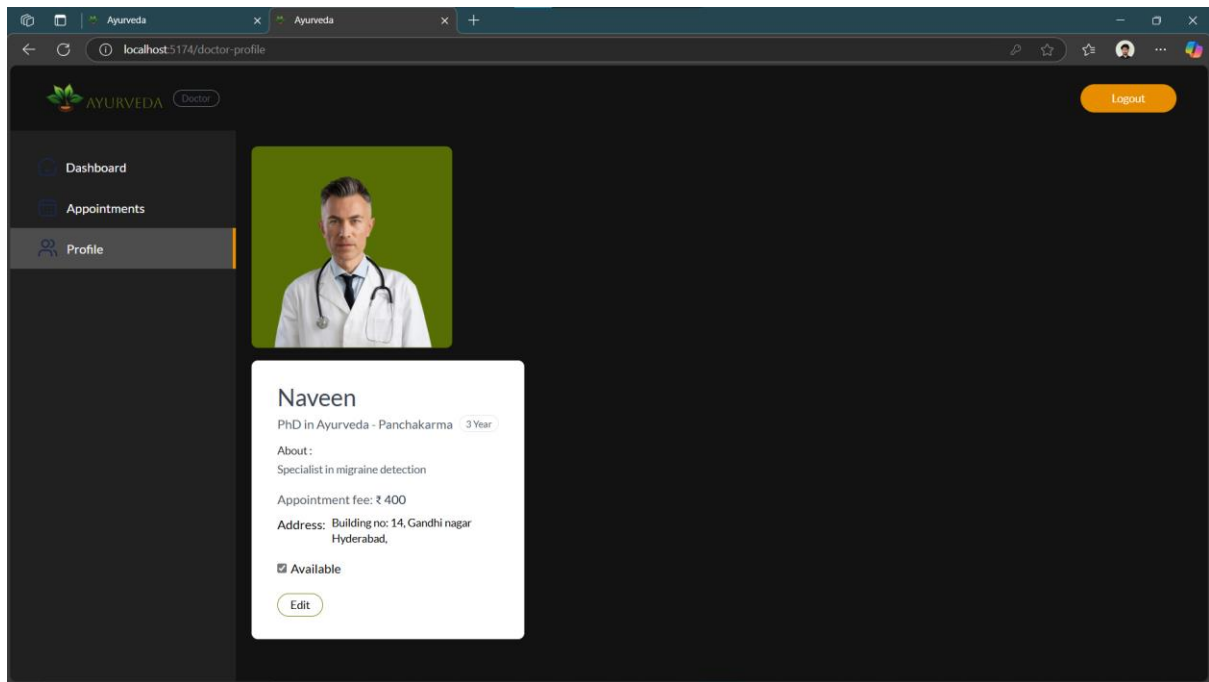


Fig 10: Doctor Profile

5.3. USER MODULE

5.3.1. USER LOGIN

- **Type:** User Page/Login
- **Description:** A standard login page for users/patients who want to use the platform for remedy suggestions or consultations.
- **Function:** Provides personalized access to the user dashboard and appointment booking.

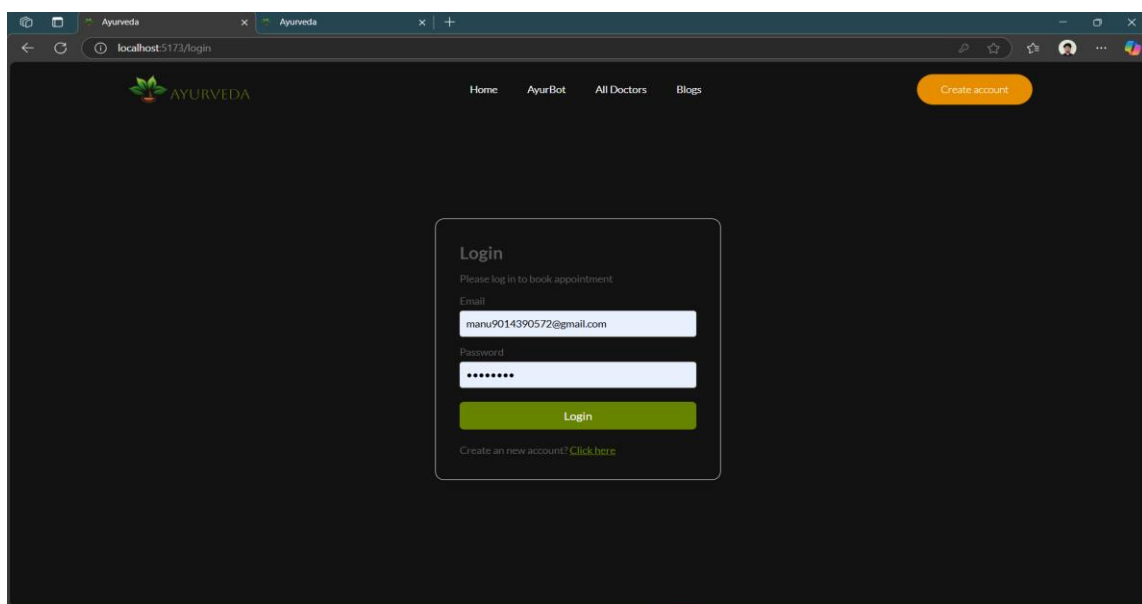


Fig 11: User Login

5.3.2. CREATE ACCOUNT

- **Type:** User Interface
- **Description:** Sign-up form that collects essential user details like name, age, gender, email, and password.
- **Function:** Enables new users to register and gain access to system services.

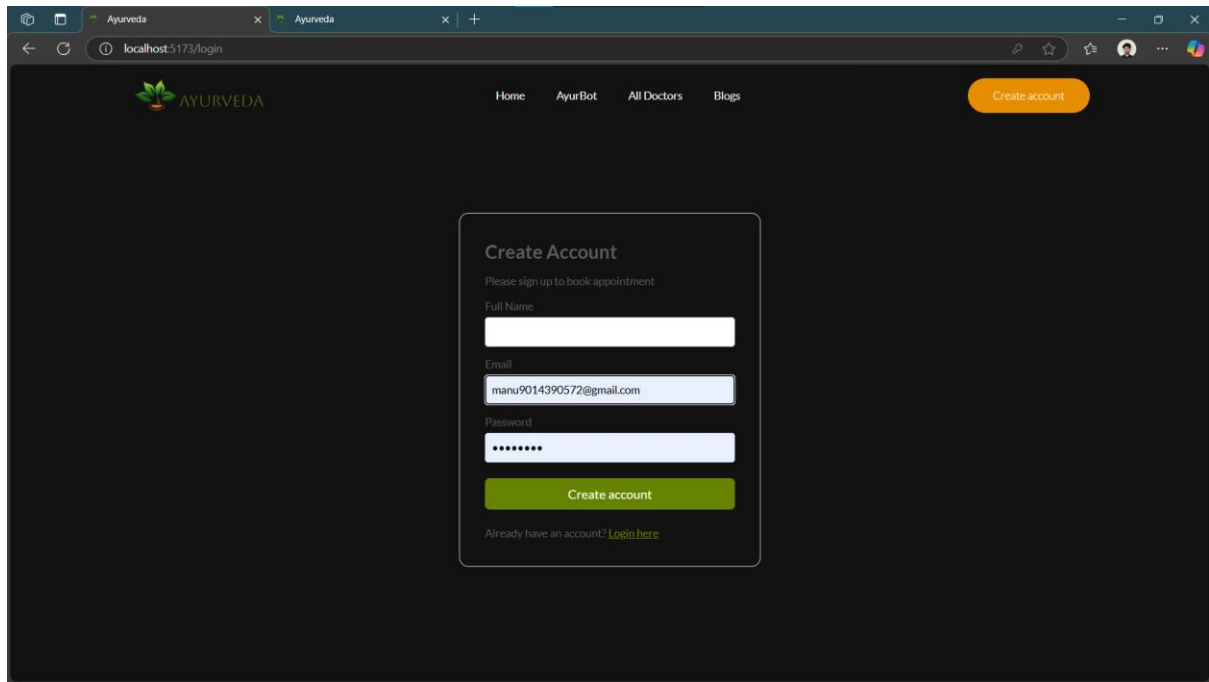
The screenshot shows a web browser window with the URL 'localhost:5173/login'. The page has a dark background. At the top, there is a navigation bar with the 'AYURVEDA' logo on the left and links for 'Home', 'AyurBot', 'All Doctors', and 'Blogs' in the center. An orange 'Create account' button is on the right. The main content area features a 'Create Account' form. The form has a title 'Create Account', a subtitle 'Please sign up to book appointment', and three input fields: 'Full Name', 'Email' (containing 'manu9014390572@gmail.com'), and 'Password' (masked with dots). A green 'Create account' button is at the bottom of the form. Below the button, there is a link: 'Already have an account? [Login here](#)'.

Fig 12: Create Account

5.3.3. HOME PAGE

- **Type:** User Interface
- **Function:** Acts as the central interaction hub for users, from AI recommendations to doctor connections.
- **Description:** The homepage serves as the landing view and includes:
 1. Symptom input form
 2. AI-generated remedies
 3. Dosha suggestions
 4. Navigation to appointments and blogs

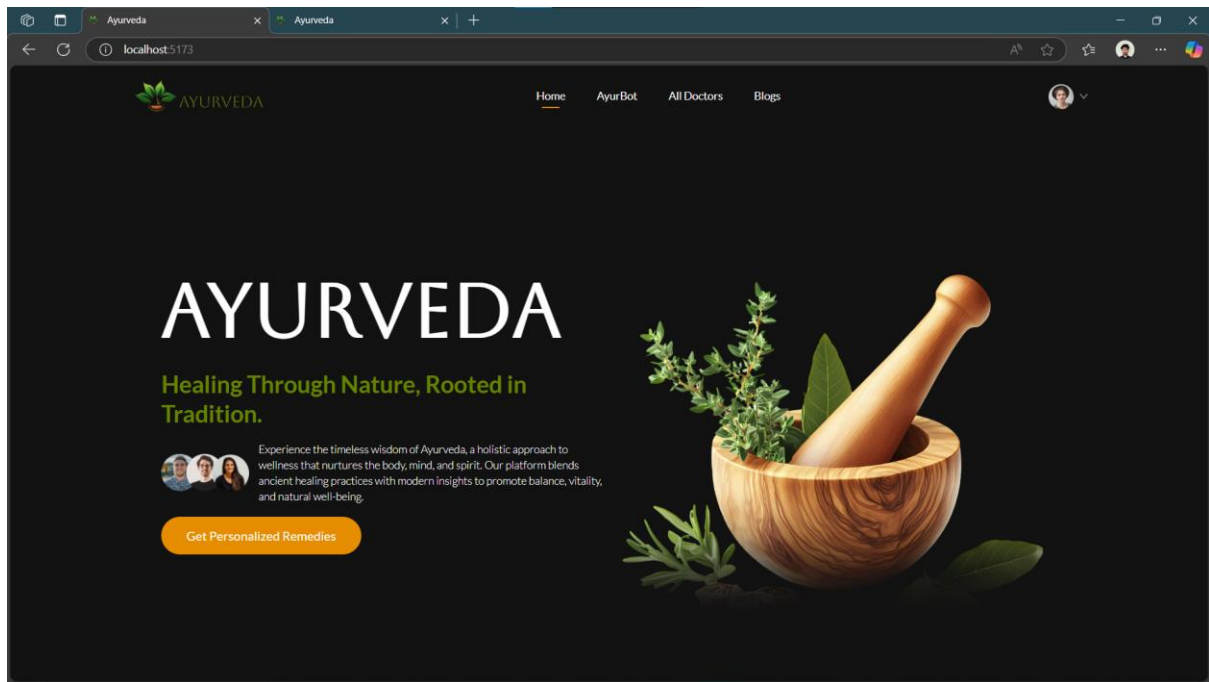


Fig 13: Home Page

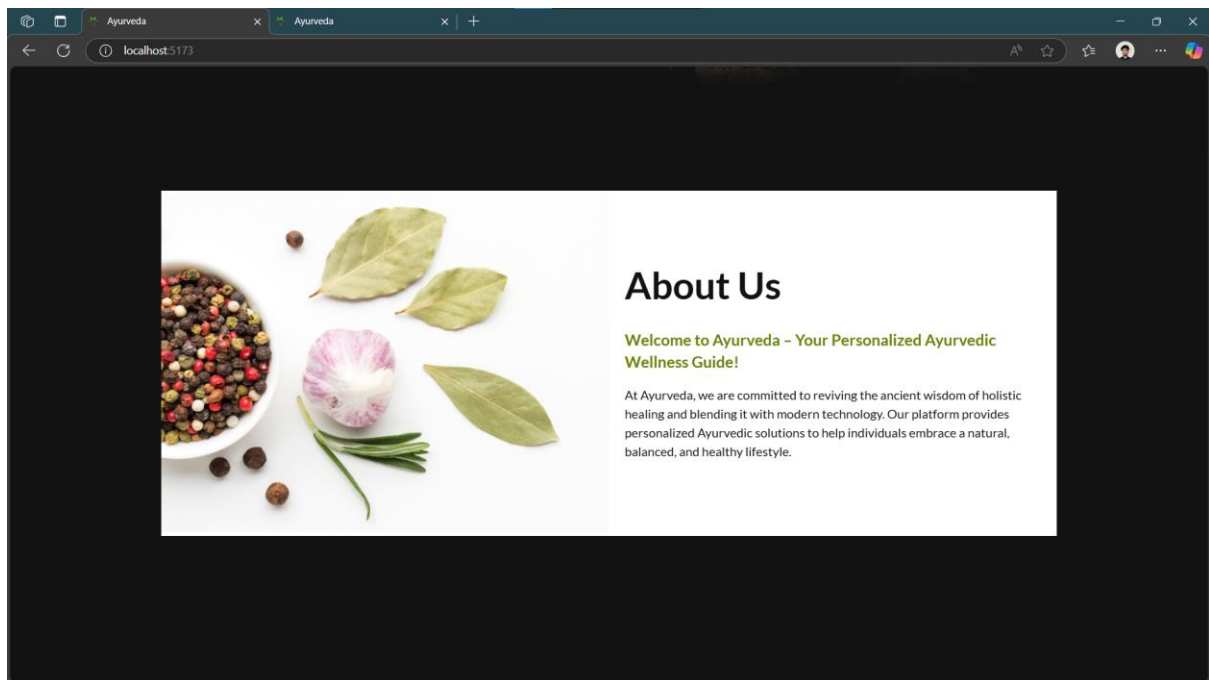


Fig 14: Home Page – About Us

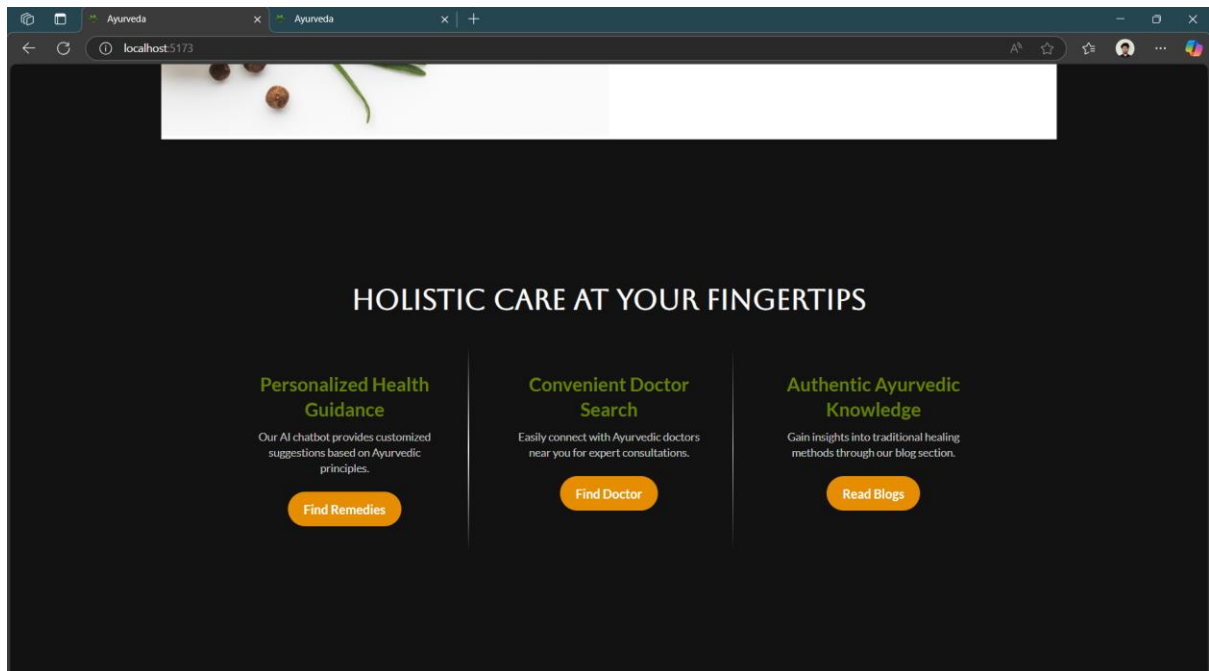


Fig 15: Home Page

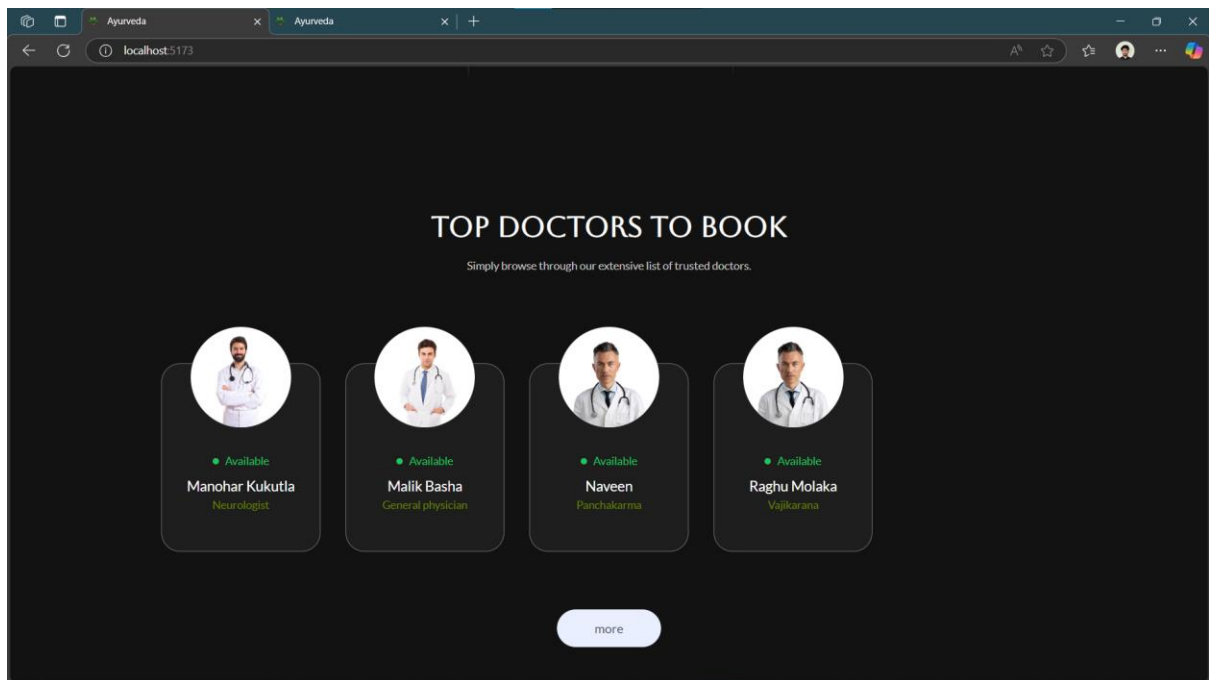


Fig 16: Top Doctors

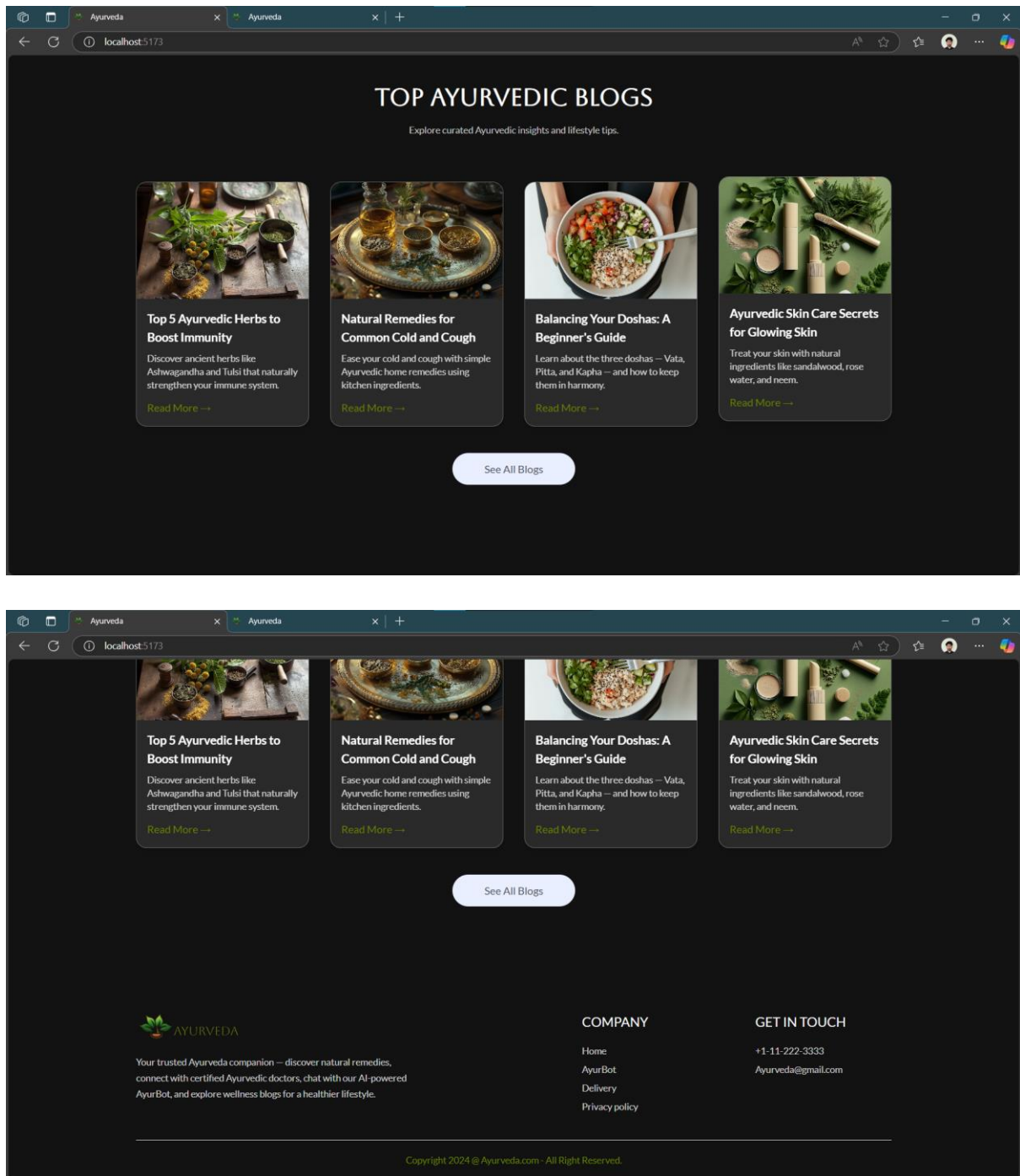


Fig 17: Top Blogs

5.3.4. AYURBOT (AI CHATBOT)

- **Type:** User Interface
- **Description:** A conversational chatbot that interacts with users, asking symptom-related questions to suggest Ayurvedic remedies.
- **Function:** AI based health assistant that adds functionality to the application, improving user engagement.

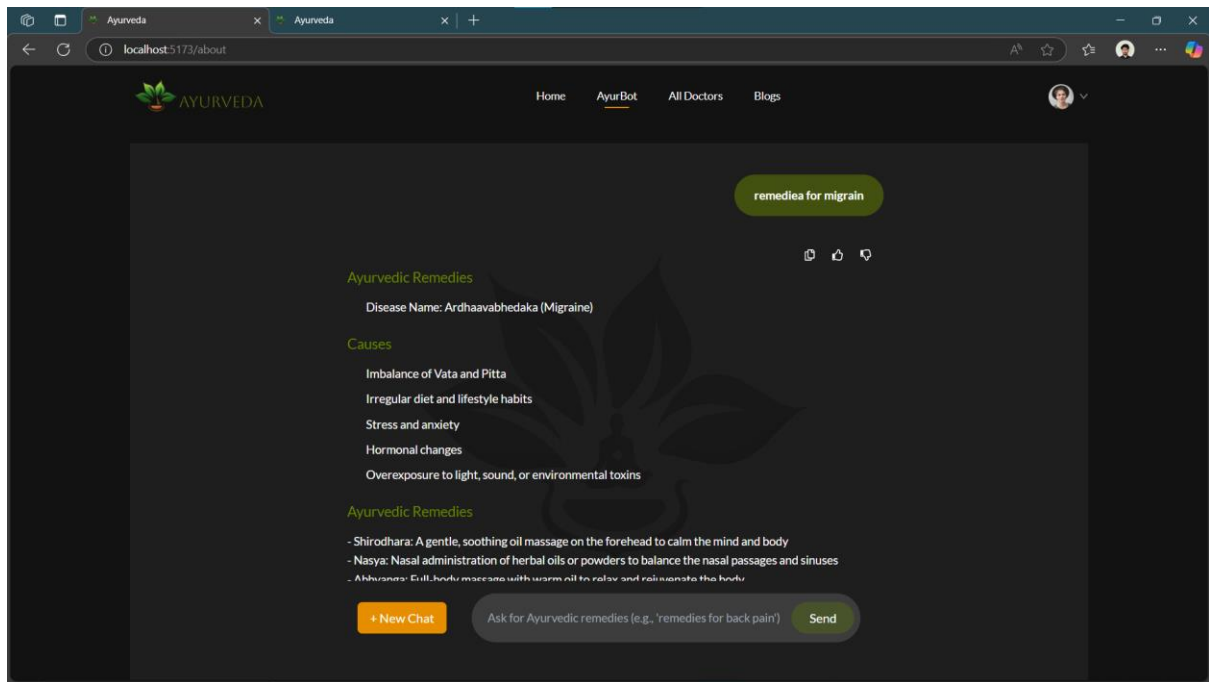


Fig 18: AyurBot (AI Chatbot)

5.3.5. ALL DOCTORS

- **Type:** User Interface
- **Description:** Lists all available doctors with filters by specialization and availability.
- **Function:** Helps users find and select a suitable Ayurvedic doctor for consultation.

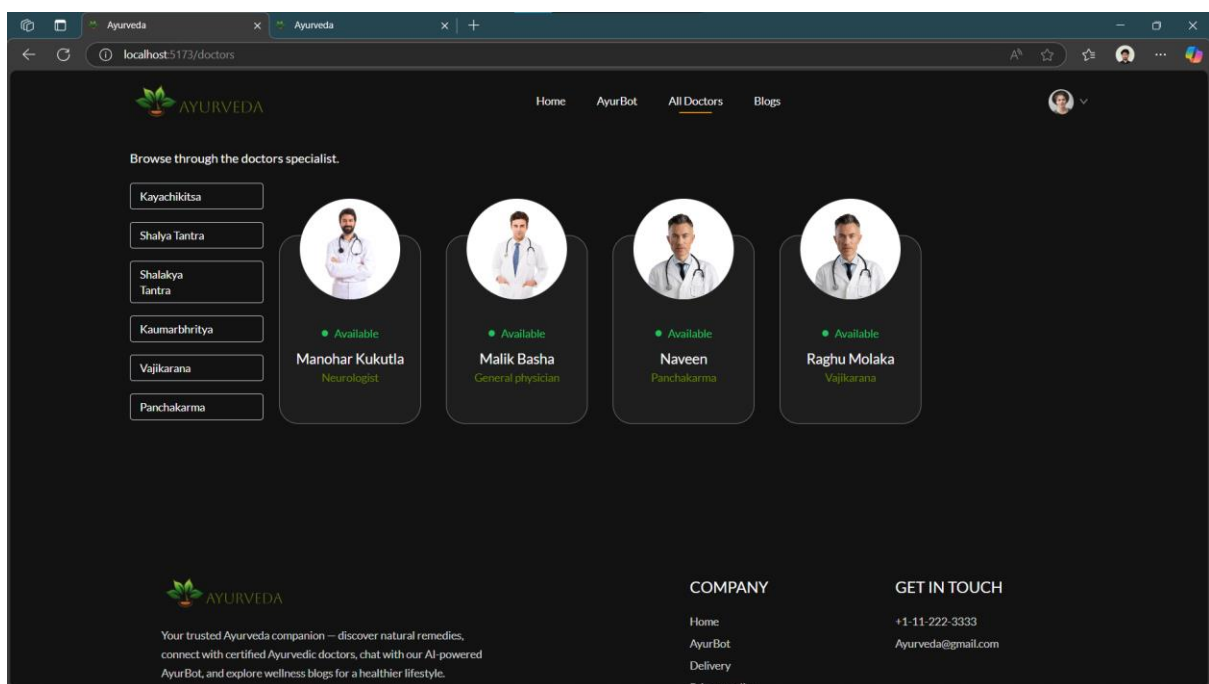


Fig 19: All Doctors

5.3.6. APPOINTMENT BOOKING PAGE

- **Type:** User Interface
- **Description:** A form-based interface where users can select a doctor, choose date/time, and enter symptoms.
- **Function:** Enables users to schedule virtual/in-person appointments with doctors.

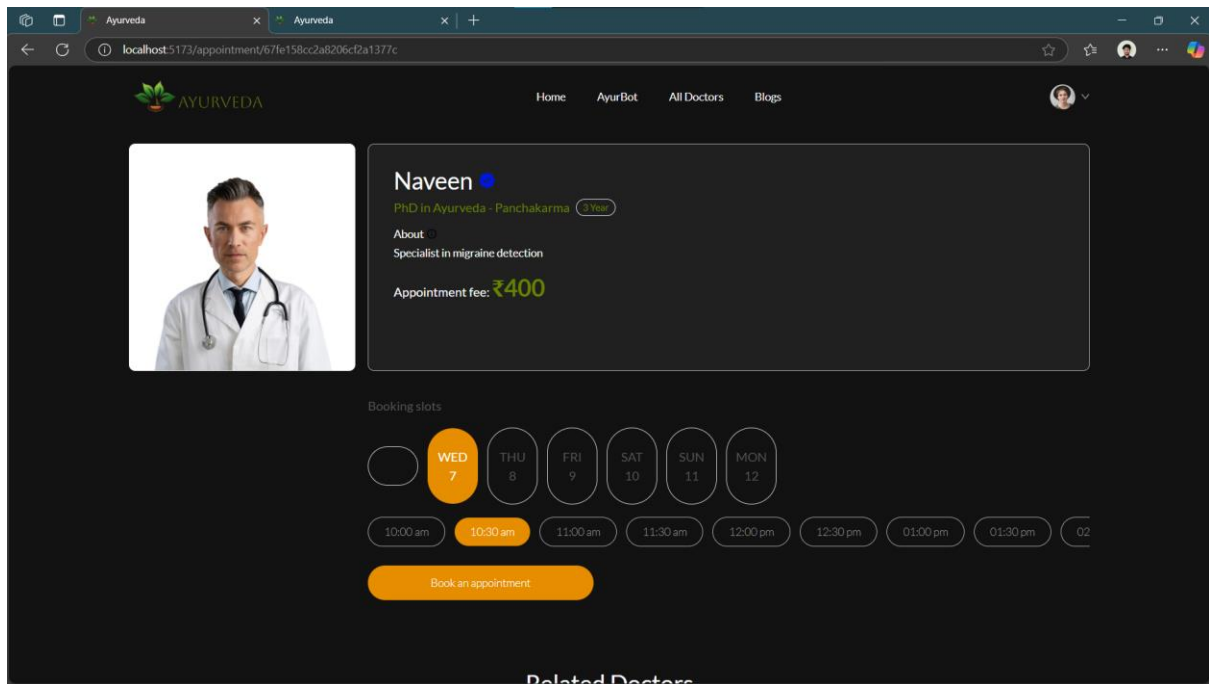


Fig 20: Appointment Booking Page

5.3.7. BLOGS

- **Type:** User Interface
- **Description:** Educational section displaying health tips, Ayurveda facts, diet advice, and seasonal wellness practices.
- **Function:** Enhances platform value by providing informative, verified health content.

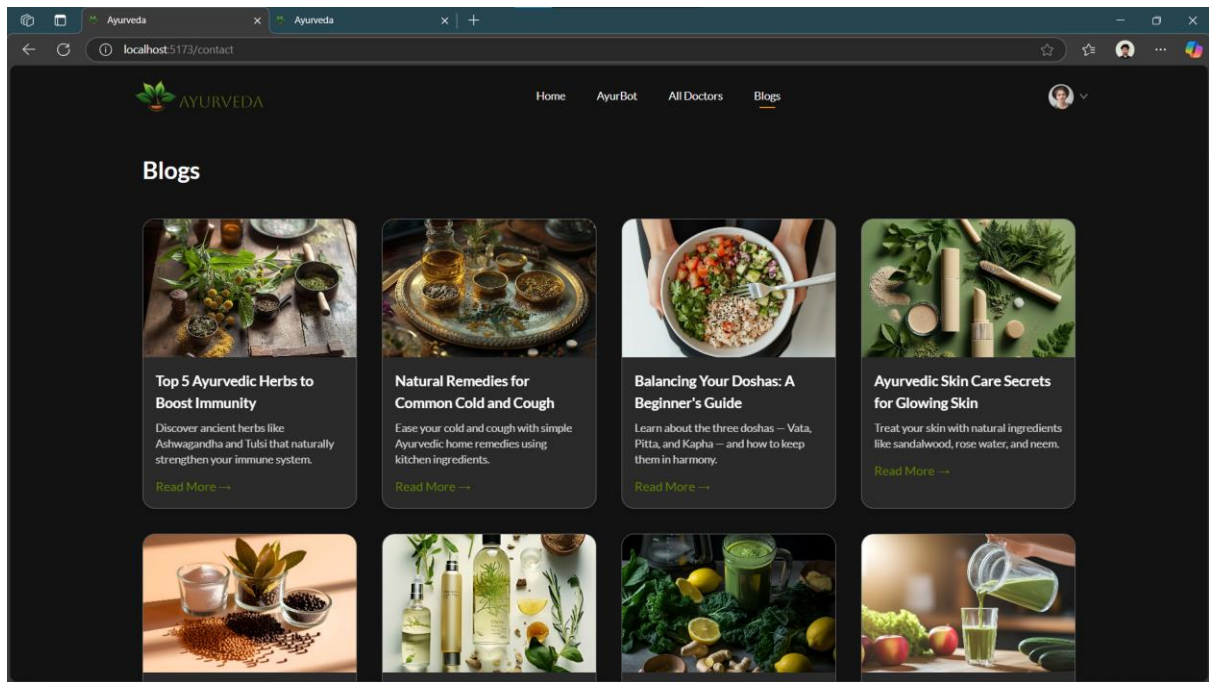


Fig 21: Blogs

5.3.8. User Profile

- **Type:** User Interface
- **Description:** Shows user-specific data such as personal details, medical history (optional), and change password options.
- **Function:** Allows users to manage and update their account and health records.

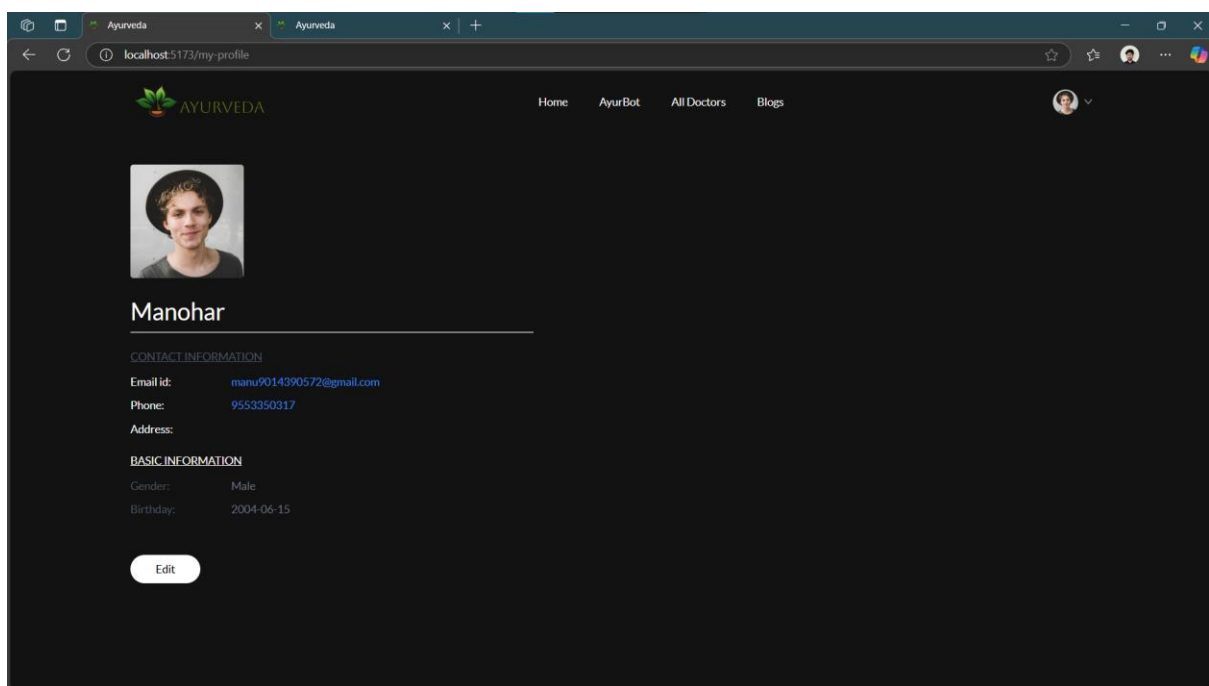


Fig 22: User Profile

5.3.9. MY APPOINTMENTS

- **Type:** User Interface
- **Description:** Tabular display of all past and upcoming appointments booked by the user.
- **Function:** Gives users full visibility into their consultation history and appointment management.

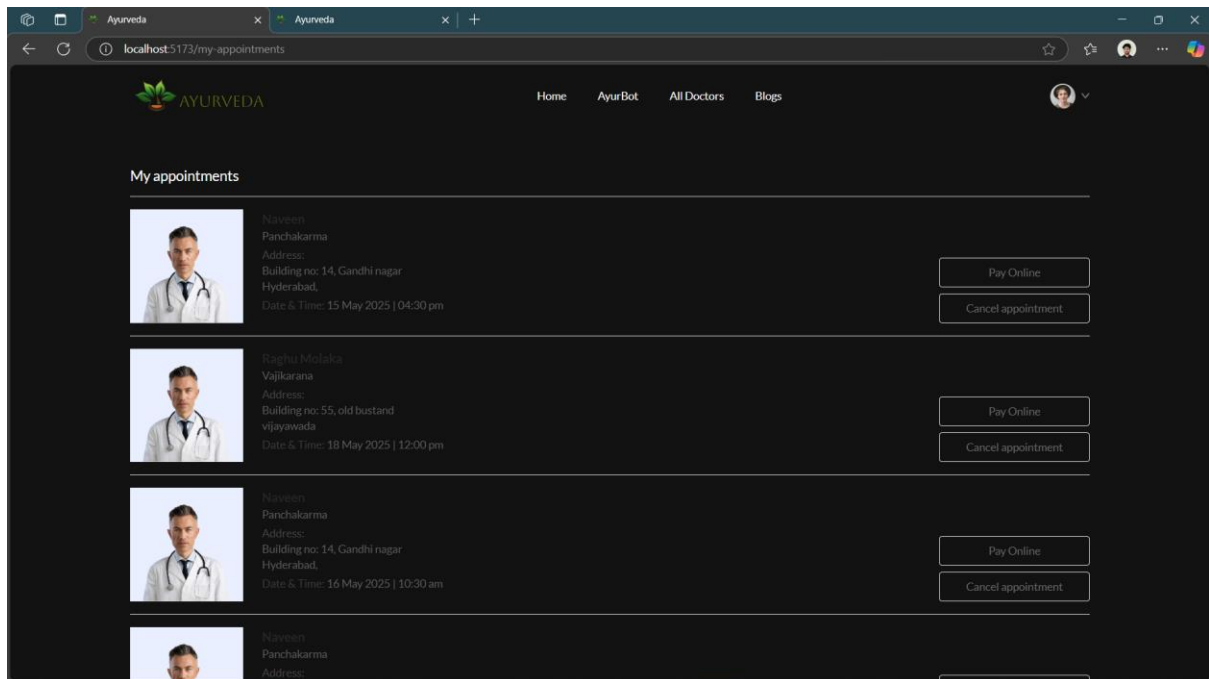


Fig 23: My Appointments

CHAPTER 6

TESTING AND EVALUATION

6.1. INTRODUCTION

Testing and evaluation are crucial phases in any software development life cycle. They ensure the system meets its intended requirements and performs reliably in real-world usage. For the Ayurvedic Remedy Prediction System, various testing methodologies were employed to validate functionality, usability, performance, and security. This chapter outlines the testing process, strategies used, results obtained, and the evaluation of system performance based on predefined metrics.

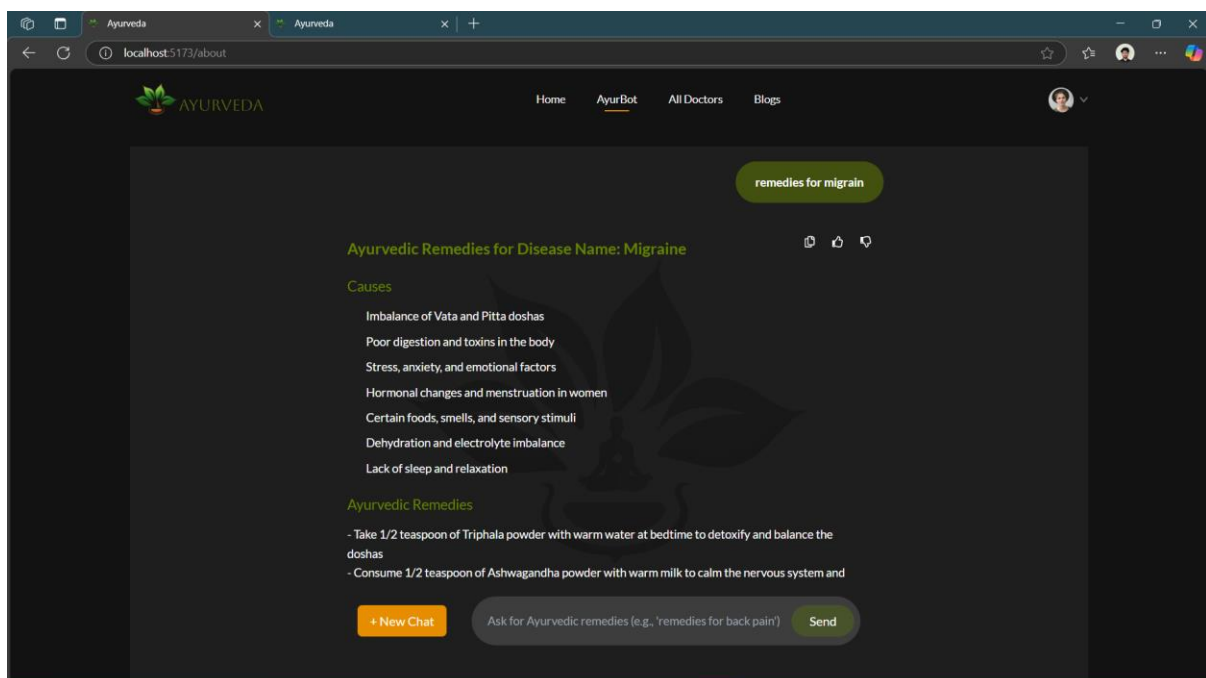
6.2. TYPES OF TESTING PERFORMED

6.2.1. UNIT TESTING

Each functional module—such as user login, chatbot interaction, appointment booking, and blog rendering—was tested independently using unit tests. Mock data was used to simulate different scenarios and validate each component's behaviour.

6.2.2. INTEGRATION TESTING

Integration testing was conducted to ensure that multiple components (e.g., frontend and backend communication, chatbot API integration, and database interactions) worked harmoniously.



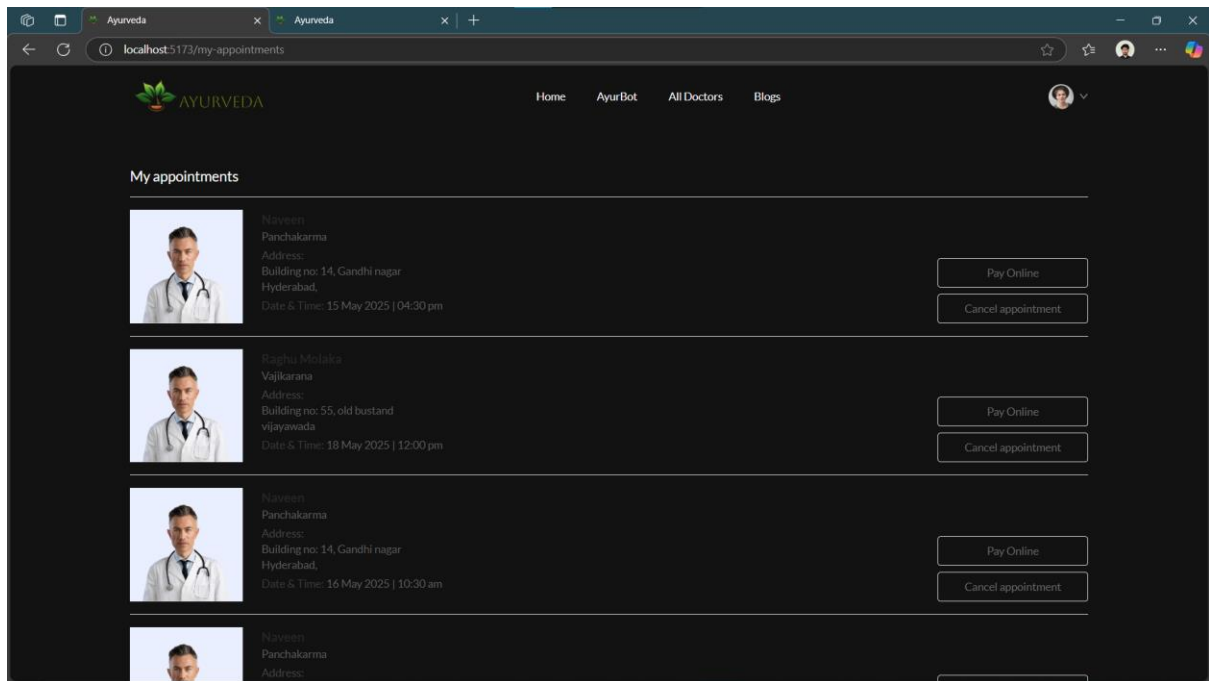
- **Focus Areas:** AyurBot-Groq API interaction, appointment booking flow between user, doctor, and admin

- **Result:** All integrations performed successfully. Response time for API calls averaged under 2 seconds.

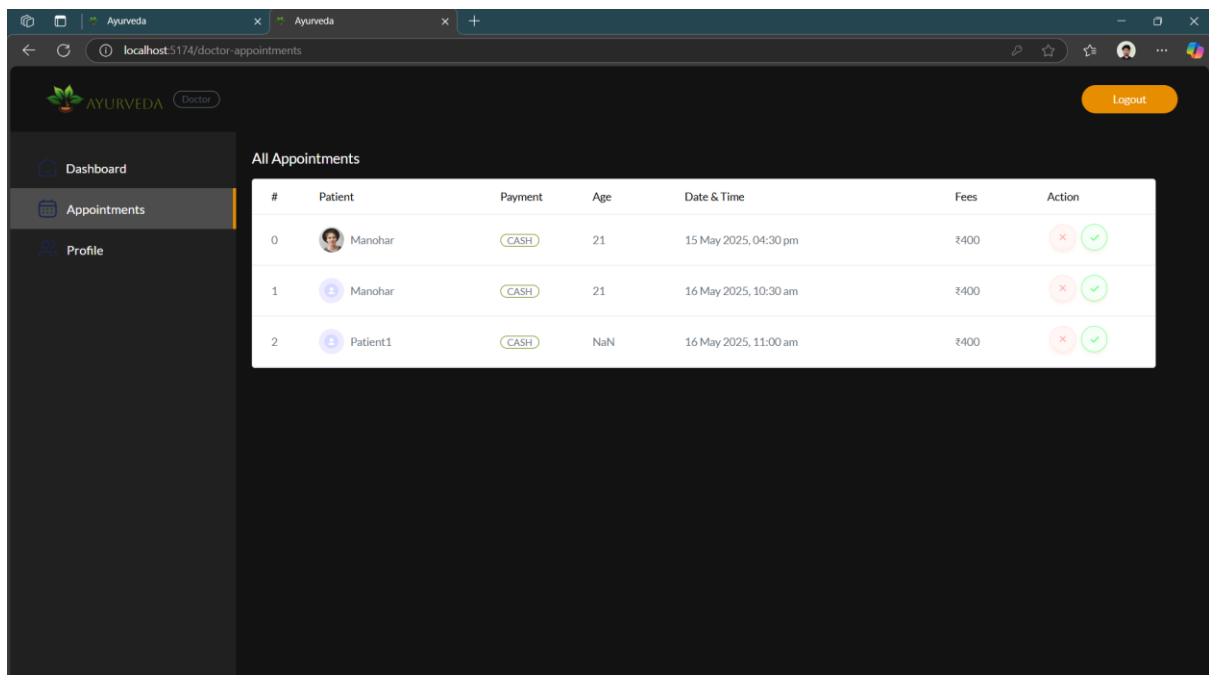
6.2.3. FUNCTIONAL TESTING

This testing ensured that the application functions as expected from the end user's perspective.

User Booking appointment:



Doctor respond:



- **Test Scenarios:**
 - Booking appointments
 - Doctor login and availability management
 - Admin approving new doctors
 - Chatbot suggesting remedies
- **Result:** All key features functioned correctly, with seamless navigation and real-time updates.

6.2.4. USABILITY TESTING

A small group of users including students, health enthusiasts, and Ayurvedic practitioners tested the platform for intuitiveness and ease of use.

- **Feedback:**
 - The chatbot was helpful and easy to use.
 - The user interface was responsive and modern.
 - Users suggested including voice-based interaction in the future.

6.2.5. SECURITY TESTING

Basic security testing was performed to validate the protection of user data and access controls.

- **Tested For:**
 - Unauthorized access
 - Session hijacking
 - SQL injection (MongoDB equivalent NoSQL injection)
- **Outcome:** The system passed all basic security checks. Role-based authentication and JWT were effective in preventing access breaches.

6.3. EVALUATION CRITERIA AND RESULTS

Metric	Target	Achieved
AyurBot Response Time	< 3 seconds	1.8 seconds average
Appointment Accuracy	100%	100%
System Uptime (test phase)	> 99%	99%
User Satisfaction (Survey)	≥ 85% positive	90% positive
Admin Functionality Coverage	Full	Complete

6.4. CONCLUSION

The testing and evaluation process confirmed that the Ayurvedic Remedy Prediction System is robust, user-friendly, and performs as intended. The platform provides reliable functionality across all user roles and ensures secure data management. Feedback from real users supported the system's practical relevance and usability in promoting Ayurvedic health practices. Future enhancements will focus on expanding AI capabilities and improving accessibility.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1. CONCLUSION

The Ayurvedic Remedy Prediction System represents a significant step toward blending the timeless wisdom of Ayurveda with the capabilities of modern digital technologies. By integrating Artificial Intelligence, web technologies, and interactive UI/UX design, this project successfully provides a platform where users can receive personalized Ayurvedic recommendations, consult certified doctors, and educate themselves through curated content.

The system was carefully designed with three main modules—User Page, Doctor Page, and Admin Page—each serving specific roles in the healthcare ecosystem. The use of the Groq API and LLaMA3-70B-8192 model enabled the development of a responsive and context-aware chatbot (AyurBot), which stands as a central feature. Other components, such as appointment scheduling and blog content, were also developed with attention to real-time interaction and user convenience.

Testing and user feedback validated that the system meets its objectives with a high degree of accuracy, usability, and performance. The project not only bridges a critical gap in digital Ayurvedic healthcare but also demonstrates how traditional medicine can be modernized through intelligent and interactive systems.

7.2. FUTURE SCOPE

Although the current system provides a robust foundation, several enhancements can further improve its functionality, accessibility, and reach:

7.2.1. INTEGRATION OF VIDEO CONSULTATION

In future versions, a secure video consultation feature can be added to facilitate face-to-face interaction between users and doctors, thereby improving trust and diagnostic accuracy.

7.2.2. MULTILINGUAL SUPPORT

To make the platform accessible to users from diverse linguistic backgrounds, support for multiple Indian and international languages will be integrated, enhancing inclusivity.

7.2.3. MOBILE APPLICATION DEVELOPMENT

Building a cross-platform mobile app version of the system can increase accessibility and encourage daily engagement with Ayurvedic practices.

7.2.4. IMPROVED AI CAPABILITIES

Training the AI model with a more comprehensive Ayurvedic dataset and including regional treatments or home remedies can make AyurBot even more accurate and locally relevant.

7.2.5. INTEGRATION WITH WEARABLES

Future developments could include integration with health trackers and wearable devices to offer real-time health monitoring and personalized recommendations based on body metrics.

7.2.6. COMMUNITY FORUM AND FEEDBACK

A discussion forum or community feature can be introduced where users share their experiences, give feedback, and doctors can post responses, making the platform more interactive.

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APPENDICES

APPENDIX 1: FRONTEND SOURCE CODE (REACT.JS)

App.jsx:

```
import React from 'react'
import Navbar from './components/Navbar'
import { Routes, Route } from 'react-router-dom'
import Home from './pages/Home'
import Doctors from './pages/Doctors'
import Login from './pages/Login'
import About from './pages/About'
import Contact from './pages/Contact'
import Appointment from './pages/Appointment'
import MyAppointments from './pages/MyAppointments'
import MyProfile from './pages/MyProfile'
import Footer from './components/Footer'
import { ToastContainer } from 'react-toastify';
import 'react-toastify/dist/ReactToastify.css';
import Verify from './pages/Verify';
import BlogList from './components/BlogList';
import BlogDetail from './pages/BlogDetail';

const App = () => {
  return (
    <div className='mx-4 sm:mx-[10%]'>
      <ToastContainer />
      <Navbar />
      <Routes>
        <Route path='/' element={<Home />} />
        <Route path='/doctors' element={<Doctors />} />
        <Route path='/doctors/:speciality' element={<Doctors />} />
        <Route path='/login' element={<Login />} />
        <Route path='/about' element={<About />} />
        <Route path='/contact' element={<Contact />} />
        <Route path='/appointment/:docId' element={<Appointment />} />
        <Route path='/my-appointments' element={<MyAppointments />} />
        <Route path='/my-profile' element={<MyProfile />} />
        <Route path='/verify' element={<Verify />} />
        <Route path="/BlogList" element={<BlogList />} />
        <Route path="/blogs/:id" element={<BlogDetail />} />
      </Routes>
      <Footer />
    </div>
  )
}

export default App
```

Header.jsx:

```
import React from 'react'
import { useNavigate } from 'react-router-dom'
import { assets } from '../assets/assets'

const Header = () => {
  const navigate = useNavigate()
  return (
    <div className='flex flex-col md:flex-row flex-wrap bg-none rounded-lg
px-3 md:px-6 lg:px-10 '>

      { /* ----- Header Left ----- */ }
      <div className='md:w-1/2 flex flex-col items-start justify-center
gap-4 py-10 m-auto md:py-[10vw] md:mb-[-30px] '>
        <p className='text-6xl md:text-7xl lg:text-8xl text-white
font-aboreto font-semibold leading-tight md:leading-tight lg:leading-tight '>
          AYURVEDA
        </p>
        <p className='text-1xl md:text-2xl lg:text-3xl text-[#668400]
font-semibold leading-tight md:leading-tight lg:leading-tight '>
          Healing Through Nature, Rooted in Tradition.
        </p>
        <div className='flex flex-col md:flex-row items-center gap-3
text-white text-sm font-light '>
          <img className='w-28' src={assets.group_profiles} alt=""
        />
          <p>Experience the timeless wisdom of Ayurveda,
            a holistic approach to wellness that nurtures the
            body, mind, and spirit.
            Our platform blends ancient healing practices with
            modern insights to promote balance, vitality, and natural well-being.</p>
        </div>
        <button onClick={() => { navigate('/about'); scrollTo(0, 0) }}
className='flex items-center gap-2 bg-[#E78D00] px-8 py-3 rounded-full text-
white text-bold m-auto md:m-0 hover:scale-105 transition-all duration-300 '>Get
Personalized Remedies</button>
      </div>

      { /* ----- Header Right ----- */ }
      <div className='md:w-1/2 relative '>
        <img className='w-full md:absolute bottom-0 h-auto rounded-lg'
src={assets.header_img} alt="" />
      </div>
    </div>
  )
}

export default Header
```

Navbar.jsx:

```
import React, { useContext, useState } from 'react'
import { assets } from '../assets/assets'
import { NavLink, useNavigate } from 'react-router-dom'
import { AppContext } from '../context/AppContext'

const Navbar = () => {

  const navigate = useNavigate()

  const [showMenu, setShowMenu] = useState(false)
  const { token, setToken, userData } = useContext(AppContext)

  const logout = () => {
    localStorage.removeItem('token')
    setToken(false)
    navigate('/login')
  }

  return (
    <div className='flex items-center justify-between text-sm py-4 mb-5 border-none'>
      <img onClick={() => navigate('/') } className='w-44 cursor-pointer' src={assets.logo} alt="" />
      <ul className='md:flex items-start gap-10 font-medium text-white hidden'>
        <NavLink to='/' >
          <li className='py-1'>Home</li>
          <hr className='border-none outline-none h-0.5 bg-[#E78D00] w-3/5 m-auto hidden' />
        </NavLink>

        <NavLink to='/about' >
          <li className='py-1'>AyurBot</li>
          <hr className='border-none outline-none h-0.5 bg-[#E78D00] w-3/5 m-auto hidden' />
        </NavLink>

        <NavLink to='/doctors' >
          <li className='py-1'>All Doctors</li>
          <hr className='border-none outline-none h-0.5 bg-[#E78D00] w-3/5 m-auto hidden' />
        </NavLink>

        <NavLink to='/contact' >
          <li className='py-1'>Blogs</li>
          <hr className='border-none outline-none h-0.5 bg-[#E78D00] w-3/5 m-auto hidden' />
        </NavLink>
      </ul>
    </div>
  )
}
```

```

    </NavLink>
  </ul>

  <div className='flex items-center gap-4 '>
    {
      token && userData
        ? <div className='flex items-center gap-2 cursor-pointer group
relative'>
          <img className='w-8 rounded-full' src={userData.image} alt="" />
          <img className='w-2.5' src={assets.dropdown_icon} alt="" />
          <div className='absolute top-0 right-0 pt-14 text-base font-
medium text-white z-20 hidden group-hover:block '>
            <div className='min-w-48 bg-[rgba(255,255,255,0.06)] rounded
flex flex-col gap-4 p-4'>
              <p onClick={() => navigate('/my-profile')} className='bg-
transparent hover:text-[#E78D00] cursor-pointer'>My Profile</p>
              <p onClick={() => navigate('/my-appointments')}
className='bg-transparent hover:text-[#E78D00] cursor-pointer'>My
Appointments</p>
              <p onClick={logout} className='bg-transparent hover:text-
[#E78D00] cursor-pointer'>Logout</p>
            </div>
          </div>
        : <button onClick={() => navigate('/login')} className='bg-
[#E78D00] text-white px-8 py-3 rounded-full font-light hidden md:block'>Create
account</button>
    }
    <img onClick={() => setShowMenu(true)} className='w-6 md:hidden'
src={assets.menu_icon} alt="" />

    { /* ---- Mobile Menu ---- */
      <div className={`md:hidden ${showMenu ? 'fixed w-full' : 'h-0 w-0'}
right-0 top-0 bottom-0 z-20 overflow-hidden bg-white transition-all`}>
        <div className='flex items-center justify-between px-5 py-6'>
          <img src={assets.logo} className='w-36' alt="" />
          <img onClick={() => setShowMenu(false)} src={assets.cross_icon}
className='w-7' alt="" />
        </div>
        <ul className='flex flex-col items-center gap-2 mt-5 px-5 text-lg
font-medium'>
          <NavLink onClick={() => setShowMenu(false)} to='/'><p
className='px-4 py-2 rounded full inline-block'>HOME</p></NavLink>
          <NavLink onClick={() => setShowMenu(false)} to='/doctors' ><p
className='px-4 py-2 rounded full inline-block'>ALL DOCTORS</p></NavLink>
          <NavLink onClick={() => setShowMenu(false)} to='/about' ><p
className='px-4 py-2 rounded full inline-block'>ABOUT</p></NavLink>
          <NavLink onClick={() => setShowMenu(false)} to='/contact' ><p
className='px-4 py-2 rounded full inline-block'>CONTACT</p></NavLink>

```

```

        </ul>
      </div>
    </div>
  </div>
)
}

export default Navbar

```

Appointment.jsx:

```

import React, { useContext, useEffect, useState } from 'react'
import { useNavigate, useParams } from 'react-router-dom'
import { AppContext } from '../context/AppContext'
import { assets } from '../assets/assets'
import RelatedDoctors from '../components/RelatedDoctors'
import axios from 'axios'
import { toast } from 'react-toastify'

const Appointment = () => {

  const { docId } = useParams()
  const { doctors, currencySymbol, backendUrl, token, getDoctosData } =
useContext(AppContext)
  const daysOfWeek = ['SUN', 'MON', 'TUE', 'WED', 'THU', 'FRI', 'SAT']

  const [docInfo, setDocInfo] = useState(false)
  const [docSlots, setDocSlots] = useState([])
  const [slotIndex, setSlotIndex] = useState(0)
  const [slotTime, setSlotTime] = useState('')

  const navigate = useNavigate()

  const fetchDocInfo = async () => {
    const docInfo = doctors.find((doc) => doc._id === docId)
    setDocInfo(docInfo)
  }

  const getAvailableSolts = async () => {

    setDocSlots([])

    // getting current date
    let today = new Date()

    for (let i = 0; i < 7; i++) {

      // getting date with index

```

```

    let currentDate = new Date(today)
    currentDate.setDate(today.getDate() + i)

    // setting end time of the date with index
    let endTime = new Date()
    endTime.setDate(today.getDate() + i)
    endTime.setHours(21, 0, 0, 0)

    // setting hours
    if (today.getDate() === currentDate.getDate()) {
        currentDate.setHours(currentDate.getHours() > 10 ?
currentDate.getHours() + 1 : 10)
        currentDate.setMinutes(currentDate.getMinutes() > 30 ? 30 : 0)
    } else {
        currentDate.setHours(10)
        currentDate.setMinutes(0)
    }

    let timeSlots = [];

    while (currentDate < endTime) {
        let formattedTime = currentDate.toLocaleTimeString([], { hour:
'2-digit', minute: '2-digit' });

        let day = currentDate.getDate()
        let month = currentDate.getMonth() + 1
        let year = currentDate.getFullYear()

        const slotDate = day + "_" + month + "_" + year
        const slotTime = formattedTime

        const isSlotAvailable = docInfo.slots_booked[slotDate] &&
docInfo.slots_booked[slotDate].includes(slotTime) ? false : true

        if (isSlotAvailable) {

            // Add slot to array
            timeSlots.push({
                datetime: new Date(currentDate),
                time: formattedTime
            })
        }

        // Increment current time by 30 minutes
        currentDate.setMinutes(currentDate.getMinutes() + 30);
    }

    setDocSlots(prev => ([...prev, timeSlots]))

```

```

    }

}

const bookAppointment = async () => {

    if (!token) {
        toast.warning('Login to book appointment')
        return navigate('/login')
    }

    const date = docSlots[slotIndex][0].datetime

    let day = date.getDate()
    let month = date.getMonth() + 1
    let year = date.getFullYear()

    const slotDate = day + "_" + month + "_" + year

    try {

        const { data } = await axios.post(backendUrl + '/api/user/book-appointment', { docId, slotDate, slotTime }, { headers: { token } })
        if (data.success) {
            toast.success(data.message)
            getDoctosData()
            navigate('/my-appointments')
        } else {
            toast.error(data.message)
        }

    } catch (error) {
        console.log(error)
        toast.error(error.message)
    }

}

useEffect(() => {
    if (doctors.length > 0) {
        fetchDocInfo()
    }
}, [doctors, docId])

useEffect(() => {
    if (docInfo) {
        getAvailableSolts()
    }
}

```

```

    }, [docInfo])

    return docInfo ? (
      <div>

        {/* ----- Doctor Details ----- */}
        <div className='flex flex-col sm:flex-row gap-4'>
          <div>
            <img className='bg-white w-full sm:max-w-72 rounded-lg'
src={docInfo.image} alt="" />
          </div>

          <div className='flex-1 border border-[#ADADAD] rounded-lg p-8
py-7 bg-[rgba(255,255,255,0.06)] mx-2 sm:mx-0 mt-[-80px] sm:mt-0'>

            {/* ----- Doc Info : name, degree, experience ----- */}

            <p className='flex items-center gap-2 text-3xl font-medium
text-white'>{docInfo.name} <img className='w-5' src={assets.verified_icon}
alt="" /></p>

            <div className='flex items-center gap-2 mt-1 text-
primary'>

              <p>{docInfo.degree} - {docInfo.speciality}</p>
              <button className='py-0.5 px-2 border text-xs rounded-
full'>{docInfo.experience}</button>
            </div>

            {/* ----- Doc About ----- */}
            <div>
              <p className='flex items-center gap-1 text-sm font-
medium text-white mt-3'>About <img className='w-3' src={assets.info_icon}
alt="" /></p>

              <p className='text-sm text-white max-w-[700px] mt-
1'>{docInfo.about}</p>
            </div>

            <p className='text-white font-medium mt-4'>Appointment
fee: <span className='text-primary text-3xl font-
semibold'>{currencySymbol}{docInfo.fees}</span> </p>
          </div>
        </div>

        {/* Booking slots */}
        <div className='sm:ml-72 sm:pl-4 mt-8 font-medium text-[#565656]'>
          <p>Booking slots</p>
          <div className='flex gap-3 items-center w-full overflow-x-
scroll mt-4'>

            {docSlots.length && docSlots.map((item, index) => (

```



```

        <div onClick={() => setSlotIndex(index)} key={index}
className={`text-center py-6 min-w-16 rounded-full cursor-pointer ${slotIndex
=== index ? 'bg-[#E78D00] text-white' : 'border border-[#DDDDDD]'}`>
        <p>{item[0] &&
daysOfWeek[item[0].datetime.getDay()]}</p>
        <p>{item[0] && item[0].datetime.getDate()}</p>
        </div>
    ))}
</div>

    <div className='flex items-center gap-3 w-full overflow-x-
scroll mt-4'>
        {docSlots.length && docSlots[slotIndex].map((item, index)
=> (
            <p onClick={() => setSlotTime(item.time)} key={index}
className={`text-sm font-light flex-shrink-0 px-5 py-2 rounded-full cursor-
pointer ${item.time === slotTime ? 'bg-[#E78D00] text-white' : 'text-[#949494]
border border-[#B4B4B4]'}`}>{item.time.toLowerCase()}</p>
            ))}
        </div>

        <button onClick={bookAppointment} className='bg-[#E78D00]
text-white text-sm font-light px-20 py-3 rounded-full my-6'>Book an
appointment</button>
    </div>

    </* Listing Related Doctors */>
    <RelatedDoctors speciality={docInfo.speciality} docId={docId} />
</div>
) : null
}

export default Appointment

```

BlogDetails.jsx:

```

import { useParams } from 'react-router-dom';
import { blogData } from '../utils/blogs';

const BlogDetail = () => {
    const { id } = useParams();
    const blog = blogData.find((b) => b.id === id);

    if (!blog) return <div className="p-4">Blog not found</div>;

    return (
        <div className="p-4 max-w-3xl mx-auto">
            <img
                src={blog.image}
            />
        </div>
    );
}

```

```

        alt={blog.title}
        className="w-full h-64 object-cover rounded-xl mb-6 shadow-sm"
      />
      <h1 className="text-3xl font-bold text-white mb-4">{blog.title}</h1>
      <p className="text-white leading-relaxed text-lg whitespace-pre-line">
        {blog.content}
      </p>
    </div>
  );
};

export default BlogDetail;

```

Doctors.jsx:

```

import React, { useContext, useEffect, useState } from 'react'
import { AppContext } from '../context/AppContext'
import { useNavigate, useParams } from 'react-router-dom'

const Doctors = () => {

  const { speciality } = useParams()

  const [filterDoc, setFilterDoc] = useState([])
  const [showFilter, setShowFilter] = useState(false)
  const navigate = useNavigate();

  const { doctors } = useContext(AppContext)

  const applyFilter = () => {
    if (speciality) {
      setFilterDoc(doctors.filter(doc => doc.speciality === speciality))
    } else {
      setFilterDoc(doctors)
    }
  }

  useEffect(() => {
    applyFilter()
  }, [doctors, speciality])

  return (
    <div>
      <p className='text-white'>Browse through the doctors specialist.</p>
      <div className='flex flex-col sm:flex-row items-start gap-5 mt-5'>

```

```

        <button onClick={() => setShowFilter(!showFilter)} className={`py-1
px-3 border rounded text-sm transition-all sm:hidden ${showFilter ? 'bg-
primary text-white' : ''}`>Filters</button>
        <div className={`flex-col gap-4 text-sm text-white ${showFilter ?
'flex' : 'hidden sm:flex'}`>
            <p onClick={() => speciality === 'Kayachikitsa' ?
navigate('/doctors') : navigate('/doctors/Kayachikitsa')} className={`w-[94vw]
sm:w-auto pl-3 py-1.5 pr-16 border border-gray-300 rounded transition-all
cursor-pointer ${speciality === 'Kayachikitsa' ? 'bg-[#E2E5FF] text-black' :
''}`>Kayachikitsa</p>
            <p onClick={() => speciality === 'Shalya Tantra' ?
navigate('/doctors') : navigate('/doctors/Shalya Tantra')} className={`w-
[94vw] sm:w-auto pl-3 py-1.5 pr-16 border border-gray-300 rounded transition-
all cursor-pointer ${speciality === 'Shalya Tantra' ? 'bg-[#E2E5FF] text-black
' : ''}`>Shalya Tantra</p>
            <p onClick={() => speciality === 'Shalakya Tantra' ?
navigate('/doctors') : navigate('/doctors/Shalakya Tantra')} className={`w-
[94vw] sm:w-auto pl-3 py-1.5 pr-16 border border-gray-300 rounded transition-
all cursor-pointer ${speciality === 'Shalakya Tantra' ? 'bg-[#E2E5FF] text-
black' : ''}`>Shalakya Tantra</p>
            <p onClick={() => speciality === 'Kaumarbhritya' ?
navigate('/doctors') : navigate('/doctors/Kaumarbhritya')} className={`w-
[94vw] sm:w-auto pl-3 py-1.5 pr-16 border border-gray-300 rounded transition-
all cursor-pointer ${speciality === 'Kaumarbhritya' ? 'bg-[#E2E5FF] text-black
' : ''}`>Kaumarbhritya</p>
            <p onClick={() => speciality === 'Vajikarana' ? navigate('/doctors')
: navigate('/doctors/Vajikarana')} className={`w-[94vw] sm:w-auto pl-3 py-1.5
pr-16 border border-gray-300 rounded transition-all cursor-pointer
${speciality === 'Vajikarana' ? 'bg-[#E2E5FF] text-black' :
''}`>Vajikarana</p>
            <p onClick={() => speciality === 'Panchakarma' ?
navigate('/doctors') : navigate('/doctors/Panchakarma')} className={`w-[94vw]
sm:w-auto pl-3 py-1.5 pr-16 border border-gray-300 rounded transition-all
cursor-pointer ${speciality === 'Panchakarma' ? 'bg-[#E2E5FF] text-black' :
''}`>Panchakarma</p>
        </div>

        <div className='w-full grid grid-cols-1 sm:grid-cols-2 md:grid-cols-3
lg:grid-cols-4 xl:grid-cols-5 gap-8 pt-5 px-3 sm:px-0'>
            {filterDoc.map((item, index) => (
                <div
                    key={index}
                    className="w-full h-80 relative"
                    onClick={() => { navigate(`/appointment/${item._id}`); scrollTo(0,
0) }}
                >
                    {/* Main card container */}
                    <div className="w-full h-60 left-0 top-[46px] absolute bg-white/5
rounded-3xl outline outline-1 outline-offset-[-1px] outline-white/40 overflow-

```

```

hidden cursor-pointer hover:translate-y-[-10px] transition-all duration-500'
key={index}">
    { /* Content container */ }
    <div className="w-full p-4 top-[99px] absolute flex flex-col
items-center bg-transparent">
        { /* Availability indicator - kept from original */ }
        <div className={`flex items-center gap-2 text-sm bg-
transparent ${item.available ? 'text-green-500' : "text-gray-500"}`}>
            <div className={`w-2 h-2 rounded-
full ${item.available ? 'bg-green-500' : "bg-gray-500"}`}></div>
            <p className='bg-transparent'>{item.available ?
'Available' : "Not Available"}</p>
        </div>

        { /* Doctor info - original text styling */ }
        <p className='text-3xl text-[#ffffff] text-lg font-medium
mt-2 bg-transparent'>{item.name}</p>
        <p className='text-primary text-sm mb-4 bg-
transparent'>{item.speciality}</p>

    </div>
</div>

    { /* Doctor image container - new circular style */ }
    <div className="w-32 h-32 left-1/2 -translate-x-1/2 top-0 absolute
bg-[#EAEFFF] rounded-full overflow-hidden">
        <img
            src={item.image}
            alt={item.name}
            className="w-full h-full object-cover bg-white"
        />
    </div>
</div>
    )
}

export default Doctors

```

MyAppointments.jsx:

```

import React, { useContext, useEffect, useState } from 'react'
import { useNavigate } from 'react-router-dom'
import { AppContext } from '../context/AppContext'
import axios from 'axios'
import { toast } from 'react-toastify'

```

```

import { assets } from '../assets/assets'

const MyAppointments = () => {

  const { backendUrl, token } = useContext(AppContext)
  const navigate = useNavigate()

  const [appointments, setAppointments] = useState([])
  const [payment, setPayment] = useState('')

  const months = ["Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug",
"Sep", "Oct", "Nov", "Dec"];

  // Function to format the date eg. ( 20_01_2000 => 20 Jan 2000 )
  const slotDateFormat = (slotDate) => {
    const dateArray = slotDate.split('_')
    return dateArray[0] + " " + months[Number(dateArray[1])] + " " +
dateArray[2]
  }

  // Getting User Appointments Data Using API
  const getUserAppointments = async () => {
    try {

      const { data } = await axios.get(backendUrl +
'/api/user/appointments', { headers: { token } })
      setAppointments(data.appointments.reverse())

    } catch (error) {
      console.log(error)
      toast.error(error.message)
    }
  }

  // Function to cancel appointment Using API
  const cancelAppointment = async (appointmentId) => {

    try {

      const { data } = await axios.post(backendUrl + '/api/user/cancel-
appointment', { appointmentId }, { headers: { token } })

      if (data.success) {
        toast.success(data.message)
        getUserAppointments()
      } else {
        toast.error(data.message)
      }
    }
  }

```

```

    } catch (error) {
      console.log(error)
      toast.error(error.message)
    }
  }

  const initPay = (order) => {
    const options = {
      key: import.meta.env.VITE_RAZORPAY_KEY_ID,
      amount: order.amount,
      currency: order.currency,
      name: 'Appointment Payment',
      description: "Appointment Payment",
      order_id: order.id,
      receipt: order.receipt,
      handler: async (response) => {

        console.log(response)

        try {
          const { data } = await axios.post(backendUrl +
"/api/user/verifyRazorpay", response, { headers: { token } });
          if (data.success) {
            navigate('/my-appointments')
            getUserAppointments()
          }
        } catch (error) {
          console.log(error)
          toast.error(error.message)
        }
      }
    };
    const rzp = new window.Razorpay(options);
    rzp.open();
  };

  // Function to make payment using razorpay
  const appointmentRazorpay = async (appointmentId) => {
    try {
      const { data } = await axios.post(backendUrl + '/api/user/payment-
razorpay', { appointmentId }, { headers: { token } })
      if (data.success) {
        initPay(data.order)
      } else {
        toast.error(data.message)
      }
    } catch (error) {
      console.log(error)
    }
  }

```

```

        toast.error(error.message)
    }
}

// Function to make payment using stripe
const appointmentStripe = async (appointmentId) => {
    try {
        const { data } = await axios.post(backendUrl + '/api/user/payment-stripe', { appointmentId }, { headers: { token } })
        if (data.success) {
            const { session_url } = data
            window.location.replace(session_url)
        } else {
            toast.error(data.message)
        }
    } catch (error) {
        console.log(error)
        toast.error(error.message)
    }
}

useEffect(() => {
    if (token) {
        getUserAppointments()
    }
}, [token])

return (
    <div>
        <p className='pb-3 mt-12 text-lg font-medium text-white border-b'>My appointments</p>
        <div className=''>
            {appointments.map((item, index) => (
                <div key={index} className='grid grid-cols-[1fr_2fr] gap-4 sm:flex sm:gap-6 py-4 border-b'>
                    <div>
                        <img className='w-36 bg-[#EAEFFF]'
src={item.docData.image} alt="" />
                    </div>
                    <div className='flex-1 text-sm text-[#5E5E5E]'>
                        <p className='text-[#262626] text-base font-semibold'>{item.docData.name}</p>
                        <p>{item.docData.speciality}</p>
                        <p className='text-[#464646] font-medium mt-1'>Address:</p>
                        <p className=''>{item.docData.address.line1}</p>
                        <p className=''>{item.docData.address.line2}</p>
                    </div>
                </div>
            ))}
        </div>
    </div>
)

```

```

        <p className='mt-1'><span className='text-sm
text-[#3C3C3C] font-medium'>Date & Time:</span>
{slotDateFormat(item.slotDate)} | {item.slotTime}</p>
        </div>
        <div></div>
        <div className='flex flex-col gap-2 justify-end text-
sm text-center'>
                {!item.cancelled && !item.payment &&
!item.isCompleted && payment !== item._id && <button onClick={() =>
setPayment(item._id)} className='text-[#696969] sm:min-w-48 py-2 border
rounded hover:bg-primary hover:text-white transition-all duration-300'>Pay
Online</button>}
                {!item.cancelled && !item.payment &&
!item.isCompleted && payment === item._id && <button onClick={() =>
appointmentStripe(item._id)} className='text-[#696969] sm:min-w-48 py-2 borde
rounded hover:bg-gray-100 hover:text-white transition-all duration-300 flex
items-center justify-center'><img className='max-w-20 max-h-5'
src={assets.stripe_logo} alt="" /></button>}
                {!item.cancelled && !item.payment &&
!item.isCompleted && payment === item._id && <button onClick={() =>
appointmentRazorpay(item._id)} className='text-[#696969] sm:min-w-48 py-2
border rounded hover:bg-gray-100 hover:text-white transition-all duration-300 flex
items-center justify-center'><img className='max-w-20 max-h-5'
src={assets.razorpay_logo} alt="" /></button>}
                {!item.cancelled && item.payment &&
!item.isCompleted && <button className='sm:min-w-48 py-2 border rounded text-
[#696969] bg-[#EAEFFF]'>Paid</button>}
                {item.isCompleted && <button className='sm:min-w-
48 py-2 border border-green-500 rounded text-green-500'>Completed</button>}
                {!item.cancelled && !item.isCompleted && <button
onClick={() => cancelAppointment(item._id)} className='text-[#696969] sm:min-
w-48 py-2 border rounded hover:bg-red-600 hover:text-white transition-all
duration-300'>Cancel appointment</button>}
                {item.cancelled && !item.isCompleted && <button
className='sm:min-w-48 py-2 border border-red-500 rounded text-red-
500'>Appointment cancelled</button>}
        </div>
    </div>
    )))
  </div>
</div>
)
}

export default MyAppointments

```


APPENDIX 2: BACKEND SOURCE CODE (NODE.JS)

AdminController.js:

```
import jwt from "jsonwebtoken";
import appointmentModel from "../models/appointmentModel.js";
import doctorModel from "../models/doctorModel.js";
import bcrypt from "bcrypt";
import validator from "validator";
import { v2 as cloudinary } from "cloudinary";
import userModel from "../models/userModel.js";

// API for admin login
const loginAdmin = async (req, res) => {
  try {
    const { email, password } = req.body

    if (email === process.env.ADMIN_EMAIL && password ===
process.env.ADMIN_PASSWORD) {
      const token = jwt.sign(email + password, process.env.JWT_SECRET)
      res.json({ success: true, token })
    } else {
      res.json({ success: false, message: "Invalid credentials" })
    }
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to get all appointments list
const appointmentsAdmin = async (req, res) => {
  try {
    const appointments = await appointmentModel.find({})
    res.json({ success: true, appointments })
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API for appointment cancellation
```

```

const appointmentCancel = async (req, res) => {
  try {

    const { appointmentId } = req.body
    await appointmentModel.findByIdAndUpdate(appointmentId, { cancelled:
true })

    res.json({ success: true, message: 'Appointment Cancelled' })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API for adding Doctor
const addDoctor = async (req, res) => {

  try {

    const { name, email, password, speciality, degree, experience, about,
fees, address } = req.body
    const imageFile = req.file

    // checking for all data to add doctor
    if (!name || !email || !password || !speciality || !degree ||
!experience || !about || !fees || !address) {
      return res.json({ success: false, message: "Missing Details" })
    }

    // validating email format
    if (!validator.isEmail(email)) {
      return res.json({ success: false, message: "Please enter a valid
email" })
    }

    // validating strong password
    if (password.length < 8) {
      return res.json({ success: false, message: "Please enter a strong
password" })
    }

    // hashing user password
    const salt = await bcrypt.genSalt(10); // the more no. round the more
time it will take
    const hashedPassword = await bcrypt.hash(password, salt)

    // upload image to cloundinary

```

```

        const imageUpload = await cloudinary.uploader.upload(imageFile.path, {
resource_type: "image" })
        const imageUrl = imageUpload.secure_url

        const doctorData = {
            name,
            email,
            image: imageUrl,
            password: hashedPassword,
            speciality,
            degree,
            experience,
            about,
            fees,
            address: JSON.parse(address),
            date: Date.now()
        }

        const newDoctor = new doctorModel(doctorData)
        await newDoctor.save()
        res.json({ success: true, message: 'Doctor Added' })

    } catch (error) {
        console.log(error)
        res.json({ success: false, message: error.message })
    }
}

// API to get all doctors list for admin panel
const allDoctors = async (req, res) => {
    try {

        const doctors = await doctorModel.find({}).select('-password')
        res.json({ success: true, doctors })

    } catch (error) {
        console.log(error)
        res.json({ success: false, message: error.message })
    }
}

// API to get dashboard data for admin panel
const adminDashboard = async (req, res) => {
    try {

        const doctors = await doctorModel.find({})
        const users = await userModel.find({})
        const appointments = await appointmentModel.find({})

```

```

    const dashData = {
      doctors: doctors.length,
      appointments: appointments.length,
      patients: users.length,
      latestAppointments: appointments.reverse()
    }

    res.json({ success: true, dashData })
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

export {
  loginAdmin,
  appointmentsAdmin,
  appointmentCancel,
  addDoctor,
  allDoctors,
  adminDashboard
}

```

DoctorController.js:

```

import jwt from "jsonwebtoken";
import bcrypt from "bcrypt";
import doctorModel from "../models/doctorModel.js";
import appointmentModel from "../models/appointmentModel.js";

// API for doctor Login
const loginDoctor = async (req, res) => {

  try {

    const { email, password } = req.body
    const user = await doctorModel.findOne({ email })

    if (!user) {
      return res.json({ success: false, message: "Invalid credentials"
    })
    }

    const isMatch = await bcrypt.compare(password, user.password)

    if (isMatch) {
      const token = jwt.sign({ id: user._id }, process.env.JWT_SECRET)

```

```

        res.json({ success: true, token })
      } else {
        res.json({ success: false, message: "Invalid credentials" })
      }

    } catch (error) {
      console.log(error)
      res.json({ success: false, message: error.message })
    }
  }

// API to get doctor appointments for doctor panel
const appointmentsDoctor = async (req, res) => {
  try {

    const { docId } = req.body
    const appointments = await appointmentModel.find({ docId })

    res.json({ success: true, appointments })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to cancel appointment for doctor panel
const appointmentCancel = async (req, res) => {
  try {

    const { docId, appointmentId } = req.body

    const appointmentData = await appointmentModel.findById(appointmentId)
    if (appointmentData && appointmentData.docId === docId) {
      await appointmentModel.findByIdAndUpdate(appointmentId, {
cancelled: true })
      return res.json({ success: true, message: 'Appointment Cancelled'
}))
    }

    res.json({ success: false, message: 'Appointment Cancelled' })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

```

```

// API to mark appointment completed for doctor panel
const appointmentComplete = async (req, res) => {
  try {

    const { docId, appointmentId } = req.body

    const appointmentData = await appointmentModel.findById(appointmentId)
    if (appointmentData && appointmentData.docId === docId) {
      await appointmentModel.findByIdAndUpdate(appointmentId, {
isCompleted: true })
      return res.json({ success: true, message: 'Appointment Completed'
    })
    }

    res.json({ success: false, message: 'Appointment Cancelled' })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to get all doctors list for Frontend
const doctorList = async (req, res) => {
  try {

    const doctors = await doctorModel.find({}).select(['-password', '-
email'])
    res.json({ success: true, doctors })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to change doctor availability for Admin and Doctor Panel
const changeAvailability = async (req, res) => {
  try {

    const { docId } = req.body

    const docData = await doctorModel.findById(docId)
    await doctorModel.findByIdAndUpdate(docId, { available:
!docData.available })
    res.json({ success: true, message: 'Availability Changed' })
  }
}

```

```

    } catch (error) {
      console.log(error)
      res.json({ success: false, message: error.message })
    }
  }

// API to get doctor profile for Doctor Panel
const doctorProfile = async (req, res) => {
  try {

    const { docId } = req.body
    const profileData = await doctorModel.findById(docId).select('-password')

    res.json({ success: true, profileData })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to update doctor profile data from Doctor Panel
const updateDoctorProfile = async (req, res) => {
  try {

    const { docId, fees, address, available } = req.body

    await doctorModel.findByIdAndUpdate(docId, { fees, address, available })

    res.json({ success: true, message: 'Profile Updated' })

  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

// API to get dashboard data for doctor panel
const doctorDashboard = async (req, res) => {
  try {

    const { docId } = req.body

    const appointments = await appointmentModel.find({ docId })

    let earnings = 0

```

```

    appointments.map((item) => {
      if (item.isCompleted || item.payment) {
        earnings += item.amount
      }
    })

    let patients = []

    appointments.map((item) => {
      if (!patients.includes(item.userId)) {
        patients.push(item.userId)
      }
    })

    const dashData = {
      earnings,
      appointments: appointments.length,
      patients: patients.length,
      latestAppointments: appointments.reverse()
    }

    res.json({ success: true, dashData })
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

export {
  loginDoctor,
  appointmentsDoctor,
  appointmentCancel,
  doctorList,
  changeAvailablity,
  appointmentComplete,
  doctorDashboard,
  doctorProfile,
  updateDoctorProfile
}

```


authAdmin.js:

```
import jwt from "jsonwebtoken"

// admin authentication middleware
const authAdmin = async (req, res, next) => {
  try {
    const { atoken } = req.headers
    if (!atoken) {
      return res.json({ success: false, message: 'Not Authorized Login Again' })
    }
    const token_decode = jwt.verify(atoken, process.env.JWT_SECRET)
    if (token_decode !== process.env.ADMIN_EMAIL + process.env.ADMIN_PASSWORD) {
      return res.json({ success: false, message: 'Not Authorized Login Again' })
    }
    next()
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

export default authAdmin;
```

authDoctor.js:

```
import jwt from 'jsonwebtoken'

// doctor authentication middleware
const authDoctor = async (req, res, next) => {
  const { dtoken } = req.headers
  if (!dtoken) {
    return res.json({ success: false, message: 'Not Authorized Login Again' })
  }
  try {
    const token_decode = jwt.verify(dtoken, process.env.JWT_SECRET)
    req.body.docId = token_decode.id
    next()
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

export default authDoctor;
```

authUser.js:

```
import jwt from 'jsonwebtoken'

//user authentication middleware
const authUser = async (req, res, next) => {
  const { token } = req.headers
  if (!token) {
    return res.json({ success: false, message: 'Not Authorized Login Again' })
  }
  try {
    const token_decode = jwt.verify(token, process.env.JWT_SECRET)
    req.body.userId = token_decode.id
    next()
  } catch (error) {
    console.log(error)
    res.json({ success: false, message: error.message })
  }
}

export default authUser;
```

APPENDIX 3: CHATBOT INTEGRATION (GROQ API CALL EXAMPLE)

RemediesPage.jsx:

```
import React, { useState, useRef, useEffect } from "react";
import { FaEllipsisV, FaCopy, FaRegCopy, FaRegThumbsUp, FaRegThumbsDown } from
"react-icons/fa";
import axios from "axios";
import { marked } from "marked";
import { openDB } from 'idb';
import { loadUserChats } from "../utils/storage";

const GROQ_API_KEY =
"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";

// Initialize IndexedDB
const initDB = async () => {
  return openDB('AyurvedaDB', 3, {
    upgrade(db) {
      if (!db.objectStoreNames.contains('chats')) {
        const store = db.createObjectStore('chats', { keyPath: 'id' });
        store.createIndex('userId', 'userId', { unique: false });
      }
      db.createObjectStore('appointments', { keyPath: 'id' });
      db.createObjectStore('feedback', { keyPath: 'id' });
    }
  });
};

// Chat API Service
const chatApi = {
  saveChat: async (userId, chatData, sessionId = null) => {
    try {
      const response = await axios.post("/api/chat/save", {
        userId,
        messages: chatData.chats,
        preview: chatData.preview,
        sessionId
      }, {
        headers: { Authorization: `Bearer ${localStorage.getItem("token")}` }
      });
      return response.data;
    } catch (error) {
      console.error("API save failed, using fallback:", error);
      const db = await initDB();
      await db.put('chats', {
        id: sessionId || Date.now(),
        userId,
        data: chatData
      });
    }
  }
};
```

```

    });
    return { success: true, chat: { sessionId: sessionId || Date.now() } };
  }
},

loadHistory: async (userId) => {
  try {
    const response = await axios.post("/api/chat/history", { userId }, {
      headers: { Authorization: `Bearer ${localStorage.getItem("token")}` }
    });

    // Transform backend data to frontend format
    const apiChats = response.data.chats.map(chat => ({
      sessionId: chat.sessionId,
      preview: chat.preview,
      createdAt: chat.createdAt,
      messages: chat.messages.map(msg => ({
        text: msg.text,
        response: msg.response,
        id: msg._id || Date.now(),
        rawText: msg.rawText || msg.response
      }))
    }));

    // Also save to IndexedDB for offline use
    const db = await initDB();
    await Promise.all(
      apiChats.map(chat =>
        db.put('chats', {
          id: chat.sessionId,
          userId,
          data: {
            chats: chat.messages,
            preview: chat.preview,
            createdAt: chat.createdAt
          }
        })
      )
    );

    return apiChats;
  } catch (error) {
    console.error("API load failed, using fallback:", error);
    const db = await initDB();
    const chats = await db.getAll('chats');
    return chats
  }
}

```

```

    .filter(chat => chat.userId === userId)
    .map(chat => ({
      sessionId: chat.id,
      preview: chat.data.preview,
      createdAt: chat.data.createdAt,
      messages: chat.data.chats.map(msg => ({
        text: msg.text,
        response: msg.response,
        id: msg.id || Date.now(),
        rawText: msg.rawText || msg.response
      })))
    }));
  },
},

deleteChat: async (userId, sessionId) => {
  try {
    await axios.post("/api/chat/delete", { userId, sessionId }, {
      headers: { Authorization: `Bearer ${localStorage.getItem("token")}` }
    });
  } catch (error) {
    console.error("API delete failed, cleaning local:", error);
    const db = await initDB();
    await db.delete('chats', sessionId);
  }
},

getUserId: async () => {
  try {
    const response = await axios.get("/api/user/verify-token", {
      headers: { Authorization: `Bearer ${localStorage.getItem("token")}` }
    });
    return response.data.userId;
  } catch (error) {
    console.error("Error verifying token:", error);
    return null;
  }
}
};

// Input analysis function
const analyzeInput = (input) => {
  const lowerInput = input.toLowerCase();

  // Check for negations
  if (/((no |not |don't |doesn't )/i.test(lowerInput)) {
    const condition = input.match(/((no |not |don't |doesn't
)(.+)/i)?.[2]?.trim() || "that condition";

```

```

    return `The user indicates they do not have ${condition}. Respond
appropriately without providing remedies.`;
  }

  // Check if it's clearly a request for remedies
  if (/ (remedy|treatment|solution|help|advice|for)\b/i.test(lowerInput)) {
    return `Provide complete Ayurvedic remedies for: ${input}`;
  }

  // Check if it's just a symptom/condition mention
  if (/ (pain|ache|problem|issue|symptom|condition|disease)/i.test(lowerInput))
  {
    return `The user mentions "${input}". Provide Ayurvedic analysis and
remedies if appropriate.`;
  }

  // Default case - ask for clarification
  return `The user said: "${input}". This doesn't clearly request Ayurvedic
remedies. Ask for clarification if needed.`;
};

const RemediesPage = () => {
  const [input, setInput] = useState("");
  const [chat, setChat] = useState([]);
  const [history, setHistory] = useState([]);
  const [showMenu, setShowMenu] = useState(false);
  const [selectedHistoryMenu, setSelectedHistoryMenu] = useState(null);
  const [isLoading, setIsLoading] = useState(false);
  const [isHistoryLoading, setIsHistoryLoading] = useState(false);
  const [activeChatId, setActiveChatId] = useState(null);
  const [copiedIndex, setCopiedIndex] = useState(null);
  const [error, setError] = useState(null);
  const [showSettings, setShowSettings] = useState(false);
  const [systemPrompt, setSystemPrompt] = useState('You are a helpful AI
assistant.');
```

```

  const inputRef = useRef(null);
  const chatBoxRef = useRef(null);

  useEffect(() => {
    const loadHistory = async () => {
      setIsHistoryLoading(true);
      setError(null);
      try {
        const userId = await chatApi.getUserId();
        if (userId) {
          // First try to load from API
          const apiHistory = await chatApi.loadHistory(userId);

```

```

        setHistory(apiHistory);

        // Then load from IndexedDB as fallback
        const savedHistory = await loadUserChats(userId);
        if (savedHistory.length > 0 && apiHistory.length === 0) {
            setHistory(savedHistory);
        }
    } catch (err) {
        console.error("Failed to load history:", err);
        setError("Failed to load chat history");
    } finally {
        setIsHistoryLoading(false);
    }
};
loadHistory();
}, []);

// Auto-scroll to bottom when chat updates
useEffect(() => {
    if (chatBoxRef.current) {
        chatBoxRef.current.scrollTo({
            top: chatBoxRef.current.scrollHeight,
            behavior: 'smooth'
        });
    }
}, [chat, isLoading]);

const copyToClipboard = (text, index) => {
    navigator.clipboard.writeText(text);
    setCopiedIndex(index);
    setTimeout(() => setCopiedIndex(null), 2000);
};

const formatAyurvedicResponse = (text) => {
    // Check for non-remedy responses
    if (text.includes("not clear") ||
        text.includes("please clarify") ||
        text.includes("no specific condition") ||
        text.includes("do not have")) {
        return `<div class="whitespace-pre-wrap leading-relaxed">${text}</div>`;
    }

    let cleanedText = text.replace(/\\*\\/g, '').replace(/\\*\\/g, '').trim();
    let formatted = "";

```

```

let currentSection = "";
let diseaseName = "";

const lines = cleanedText.split('\n').filter(line => line.trim());

for (let i = 0; i < lines.length; i++) {
  const line = lines[i].trim();

  if (line.endsWith(':')) {
    const sectionName = line.replace(':', '').trim();

    if (currentSection === "list") {
      formatted += "</ul>";
    }
    else if (currentSection === "paragraph") {
      formatted += "</p>";
    }

    if (/disease|problem|issue|condition/i.test(sectionName)) {
      diseaseName = lines[i+1]?.trim() || sectionName;
      formatted += `<h2 class="text-[#668400] text-xl mt-0 mb-4"><strong>Ayurvedic Remedies for ${diseaseName}</strong></h2>`;
      i++;
      currentSection = "title";
    }
    else if (/cause|reason/i.test(sectionName)) {
      formatted += `<h3 class="text-[#668400] text-lg mt-5 mb-3">Causes</h3><ul class="pl-6 mb-4">`;
      currentSection = "list";
    }
    else if (/remedy|treatment|solution/i.test(sectionName)) {
      formatted += `<h3 class="text-[#668400] text-lg mt-5 mb-3">Ayurvedic Remedies</h3><ul class="pl-6 mb-4">`;
      currentSection = "list";
    }
    else if (/exercise|yoga|physical/i.test(sectionName)) {
      formatted += `<h3 class="text-[#668400] text-lg mt-5 mb-3">Recommended Exercises</h3><ul class="pl-6 mb-4">`;
      currentSection = "list";
    }
    else if (/diet|food|nutrition/i.test(sectionName)) {
      formatted += `<h3 class="text-[#668400] text-lg mt-5 mb-3">Diet Recommendations</h3><ul class="pl-6 mb-4">`;
      currentSection = "list";
    }
    else if (/note|additional|advice/i.test(sectionName)) {
      formatted += `<h3 class="text-[#668400] text-lg mt-5 mb-3">Additional Notes</h3><div class="bg-[#292929] p-4 rounded-md my-4">`;
      currentSection = "paragraph";
    }
  }
}

```



```

    }
    else {
      formatted += `

### 


```

```

    id: Date.now(),
    rawText: ""
  ]]);
  setInput("");
  return;
}

const userMessage = {
  text: input,
  response: "⌚ Waiting for AI response...",
  id: Date.now(),
  rawText: ""
};

const updatedChat = [...chat, userMessage];
setChat(updatedChat);
setInput("");
inputRef.current?.focus();
setIsLoading(true);

try {
  const response = await axios.post(
    "https://api.groq.com/openai/v1/chat/completions",
    {
      model: "llama3-70b-8192",
      messages: [
        {
          role: "system",
          content: `You are an expert Ayurvedic doctor. Analyze the user's
input carefully and:

          1. If the user describes symptoms or asks for remedies, provide
detailed Ayurvedic solutions
          2. If the user mentions NOT having a condition (e.g., "I don't
have headache"), respond appropriately
          3. If the input is unclear, ask for clarification and Do not
provide remedies
          4. If the user asks general questions about Ayurveda, provide
educational answers

          When providing remedies, use this format:

          Disease Name: [Condition]
          Causes: [List]
          Ayurvedic Remedies: [List]
          Recommended Exercises: [List]
          Diet Recommendations: [List]
          Additional Notes: [Text]
`
        }
      ]
    }
  );
} catch (error) {
  console.error("Error in API call:", error);
}

```

```

        Formatting Rules:
        1. Always use these exact section headings ending with colons
        2. Each section must start on a new line
        3. List items must start with "- " and be on separate lines
        4. Never mix content between sections
        5. Include practical, actionable advice
        6. Keep remedies traditional and authentic`
    },
    {
        role: "user",
        content: analyzeInput(input)
    }
],
temperature: 0.7,
max_tokens: 2000,
top_p: 0.9,
},
{
    headers: {
        Authorization: `Bearer ${GROQ_API_KEY}`,
        "Content-Type": "application/json",
    },
}
);

const aiText = response?.data?.choices?.[0]?.message?.content || "No
response from AI.";
const formattedResponse = formatAyurvedicResponse(aiText);

const finalChat = updatedChat.map(msg =>
    msg.id === userMessage.id
    ? { ...msg, response: formattedResponse, rawText: aiText }
    : msg
);

setChat(finalChat);

// Save to backend
const userId = await chatApi.getUserId();
if (userId) {
    const sessionId = activeChatId || Date.now().toString();
    await chatApi.saveChat(userId, {
        chats: finalChat,
        preview: finalChat[0].text
    }, sessionId);

    if (!activeChatId) {
        setActiveChatId(sessionId);
        // Update history state optimistically

```

```

        setHistory(prev => [{
            sessionId,
            preview: finalChat[0].text.substring(0, 40),
            createdAt: new Date().toISOString(),
            messages: finalChat
        }, ...prev]);
    }
}
} catch (error) {
    console.error("Error:", error);
    setChat(prevChat =>
        prevChat.map(msg =>
            msg.id === userMessage.id
                ? {
                    ...msg,
                    response: "⚠ Failed to fetch response. Please check your
connection or try again later.",
                    rawText: "Error occurred while fetching response"
                }
                : msg
            )
        );
} finally {
    setIsLoading(false);
}
};

const handleNewChat = async () => {
    try {
        setIsHistoryLoading(true);

        // Save current chat if it exists
        if (chat.length > 0) {
            const userId = await chatApi.getUserId();
            if (userId) {
                const sessionId = activeChatId || Date.now().toString();
                await chatApi.saveChat(userId, {
                    chats: chat,
                    preview: chat[0]?.text || "New Chat",
                    createdAt: new Date().toISOString()
                }, sessionId);
            }
        }

        // Reset chat state
        setChat([]);
        setInput("");
        setActiveChatId(null);
    }
};

```

```

// Create a new chat entry in history
const newSessionId = Date.now().toString();
setActiveChatId(newSessionId);
setHistory(prev => [{
  sessionId: newSessionId,
  preview: "New Chat",
  createdAt: new Date().toISOString(),
  messages: []
}, ...prev]);

inputRef.current?.focus();
} catch (error) {
  console.error("Error creating new chat:", error);
  setError("Failed to create new chat");
} finally {
  setIsHistoryLoading(false);
}
};

// Also ensure these other handler functions are defined:
const handleClearHistory = async () => {
  try {
    const userId = await chatApi.getUserId();
    if (userId) {
      const allChats = await loadUserChats(userId);
      await Promise.all(
        allChats.map(chat => chatApi.deleteChat(userId, chat.sessionId))
      );
    }
    setHistory([]);
    setActiveChatId(null);
    setChat([]);
    setShowMenu(false);
  } catch (error) {
    console.error("Error clearing history:", error);
    setError("Failed to clear history");
  }
};

const handleClearSingleChat = async (sessionId) => {
  try {
    const userId = await chatApi.getUserId();
    if (userId) {
      await chatApi.deleteChat(userId, sessionId);
    }
    setHistory(prev => prev.filter(item => item.sessionId !== sessionId));
    if (activeChatId === sessionId) {
      setActiveChatId(null);
    }
  }
};

```

```

        setChat([]);
    }
    setSelectedHistoryMenu(null);
} catch (error) {
    console.error("Error deleting chat:", error);
    setError("Failed to delete chat");
}
};

const handleLoadChatFromHistory = async (historyItem) => {
    try {
        setIsLoading(true);

        // Ensure we have messages to load
        if (!historyItem?.messages?.length) {
            throw new Error("No messages in this chat");
        }

        // Transform messages with proper fallbacks
        const formattedMessages = historyItem.messages.map(msg => ({
            text: msg.text || 'No text',
            response: msg.response || '<div>No response content</div>',
            id: msg.id || msg._id || `msg-${Date.now()}`,
            rawText: msg.rawText || msg.response || ''
        }));

        // Reset and set chat in separate operations
        setChat([]);
        await new Promise(resolve => setTimeout(resolve, 50));
        setChat(formattedMessages);

        setActiveChatId(historyItem.sessionId);

        // Double ensure scroll works
        setTimeout(() => {
            if (chatBoxRef.current) {
                chatBoxRef.current.scrollTo({
                    top: chatBoxRef.current.scrollHeight,
                    behavior: 'smooth'
                });
            }
            inputRef.current?.focus();
        }, 300);
    } catch (error) {
        console.error("Error loading chat:", error);
        setChat([
            {
                text: "Error loading chat",
                response: "Could not load the selected conversation",
            }
        ]);
    }
};

```

```

        id: Date.now(),
        rawText: "Error loading chat history"
    ]]);
    } finally {
        setIsLoading(false);
    }
};

const exportChatHistory = () => {
    const dataStr = JSON.stringify(history, null, 2);
    const blob = new Blob([dataStr], { type: 'application/json' });
    const url = URL.createObjectURL(blob);
    const link = document.createElement('a');
    link.href = url;
    link.download = `ayurveda-chat-history-${new Date().toISOString()}.json`;
    link.click();
};

const importChatHistory = async (event) => {
    const file = event.target.files[0];
    if (!file) return;

    const reader = new FileReader();
    reader.onload = async (e) => {
        try {
            const importedHistory = JSON.parse(e.target.result);
            setHistory(importedHistory);
            const userId = await chatApi.getUserId();
            if (userId) {
                await Promise.all(
                    importedHistory.map(chat =>
                        chatApi.saveChat(userId, {
                            chats: chat.messages,
                            preview: chat.preview,
                            createdAt: chat.createdAt
                        }, chat.sessionId)
                    )
                );
            }
        } catch (error) {
            console.error("Error importing chat history:", error);
        }
    };
    reader.readAsText(file);
};

```

```

return (
  <>
    <div className="flex h-full bg-[#121212] font-['Lato','Segoe_UI'] text-
black"
      onClick={() => {
        setSelectedHistoryMenu(null);
        setShowMenu(false);
      }}
    >

      { /* Main Chat Area */ }
      <div className="flex-grow w-4/5 flex items-center flex-col h-[87vh]
bg-[url('/src/assets/chat-background.png')] bg-cover bg-center bg-no-repeat"
        onClick={(e) => e.stopPropagation()}>

        <div className="flex-1 p-5 w-[750px] overflow-y-auto scroll-smooth
flex items-center flex-col" ref={chatBoxRef}>
          {chat.length === 0 && !isLoading && (
            <div className="p-[30px_20px] text-center max-w-[600px] mx-
auto">
              <h2 className="text-[#668400] mb-4">Welcome to Ayurvedic
Remedies</h2>
              <p className="mb-0 pb-0 leading-relaxed text-[#ecec33]">Ask
for Ayurvedic treatments for any health condition.</p>
              <p className="mb-0 pb-0 leading-relaxed text-
[#ecec33]">Example queries:</p>
              <ul className="text-left inline-block my-4 mx-auto pl-5">
                <li className="mb-2 leading-relaxed text-
[#a9a9a9]">"Ayurvedic remedies for migraine"</li>
                <li className="mb-2 leading-relaxed text-[#a9a9a9]">"How to
treat arthritis with Ayurveda"</li>
                <li className="mb-2 leading-relaxed text-[#a9a9a9]">"Natural
solutions for digestion problems"</li>
                <li className="mb-2 leading-relaxed text-[#a9a9a9]">"Home
remedies for common cold in Ayurveda"</li>
                <li className="mb-2 leading-relaxed text-[#a9a9a9]">"I don't
have headache but feel dizzy"</li>
              </ul>
            </div>
          )}

          {chat.map((entry, index) => (
            <div key={index} className="mb-5 flex items-center flex-col
animate-fadeIn">
              <div className="font-semibold mb-7 mt-5 w-fit max-w-[350px] p-
[15px_25px] rounded-full bg-[rgba(101,132,0,0.5)] text-white text-[15px] ml-
auto">
                {entry.text}
              </div>

```



```

        </div>
      </div>
    )}
  </div>

  { /* Input Area */
    <div className="p-4 border-none flex justify-center items-center
gap-8 w-[700px] mb-8">
      <button
        className="bg-[#E78D00] text-white border-none py-1 px-4
rounded-md cursor-pointer font-medium transition-all duration-200 w-fit h-10
min-w-[80px] hover:bg-[#ffb640]"
        onClick={handleNewChat}>
        + New Chat
      </button>
      <div className="bg-[#3d3d3d] rounded-full flex items-center
justify-center gap-0 p-2">
        <input
          ref={inputRef}
          type="text"
          placeholder="Ask for Ayurvedic remedies (e.g., 'remedies for
back pain')"
          value={input}
          onChange={(e) => setInput(e.target.value)}
          onKeyDown={(e) => e.key === "Enter" && handleSend()}
          disabled={isLoading}
          autoFocus
          className="flex-grow p-3 bg-transparent text-white text-[15px]
w-[400px] focus:outline-none"
        />
        <button
          className="bg-[#E78D00] text-white border-none py-auto px-5
rounded-full cursor-pointer font-medium transition-all duration-200 min-w-
[80px] h-10 disabled:bg-[rgba(101,132,0,0.30)] disabled:cursor-not-allowed"
          onClick={handleSend}
          disabled={isLoading || !input.trim()}>
          {isLoading ? "... " : "Send"}
        </button>
      </div>
    </div>
  </div>
</div>
</>
);
};

export default RemediesPage;

```

APPENDIX 4: MONGODB AND CLOUDINARY SCHEMA DESIGN

Mongodb.js:

```
import mongoose from "mongoose";

const connectDB = async () => {

  mongoose.connection.on('connected', () => console.log("Database
Connected"))
  await mongoose.connect(`${process.env.MONGODB_URI}/prescripto`)
}

export default connectDB;
```

cloudinary.js:

```
import { v2 as cloudinary } from 'cloudinary';

const connectCloudinary = async () => {

  cloudinary.config({
    cloud_name: process.env.CLOUDINARY_NAME,
    api_key: process.env.CLOUDINARY_API_KEY,
    api_secret: process.env.CLOUDINARY_SECRET_KEY
  });
}

export default connectCloudinary;
```