

Final Report

Project Title:- DocSpot: Seamless Appointment Booking for Health

Team ID: LTVIP2025TMID58589

Team Members:

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4. Shaik Abdul Hanif

1. INTRODUCTION

DocSpot is a MERN stack-based full-stack web application that connects patients with doctors through a streamlined digital platform. It enables users to discover doctors, book appointments, and manage consultations efficiently, while offering doctors and administrators tools to manage their workflow.

The platform addresses gaps in health-tech by delivering a secure, role-based system with real-time booking, authenticated access, and centralized appointment management.

2. IDEATION PHASE

Problem:

Patients face difficulties finding available, trusted doctors with convenient booking options. Doctors struggle to manage appointments digitally while ensuring schedule optimization.

Empathy Map & Brainstorm:

We captured user pain points like unavailability, slow booking, and lack of transparency. Through brainstorming, we designed core features such as doctor search filters, real-time booking, appointment tracking, and admin-level verification.

3. REQUIREMENT ANALYSIS

User Journey:

- ✓ Patients register, search for doctors, view profiles, and book appointments
- ✓ Doctors log in, manage availability, and handle appointment requests
- ✓ Admins verify doctor credentials and oversee system operations.

Requirements:

- ✓ **Functional:** Login/Register, Doctor Discovery, Booking System, Role-Based Dashboards
- ✓ **Non-Functional:** Security, Responsiveness, Usability, Performance

Technology Stack:

Frontend: React.js, Tailwind CSS, Bootstrap

Backend: Node.js, Express.js

Database: MongoDB

4. PROJECT DESIGN

Problem-Solution Fit:

DocSpot digitizes the healthcare appointment workflow, increasing accessibility and reducing friction for patients while streamlining operations for doctors and admins..

Proposed Architecture:

Presentation Layer: React + Tailwind UI

Business Logic: Express.js APIs with JWT authentication

Data Layer: MongoDB with Mongoose

Design Artifacts:

- DFD showing patient–doctor–admin flow
- ER diagram modeling Users, Doctors, Appointments

5. PROJECT PLANNING & SCHEDULING

We followed an Agile sprint-based approach:

- ❖ **Sprint 1:** UI Layout, Routing, Role-Based Navigation
- ❖ **Sprint 2:** Backend Setup, MongoDB Models
- ❖ **Sprint 3:** Authentication & Role Management
- ❖ **Sprint 4:** Doctor Listing, Booking Logic
- ❖ **Sprint 5:** Admin Dashboard, Final Testing & Hosting

6. FUNCTIONAL AND PERFORMANCE TESTING

Functional Tests:

- User registration/login
- Doctor profile rendering
- Appointment booking, confirmation, and cancellation
- Admin access control

Performance Tests:

- Booking load handling
- API latency under multiple simultaneous requests
- Deployed on Vercel

7. RESULTS

The website is live at:

🔗 <https://docspot-com.vercel.app/>

Screens include:

- ❑ Patient Login & Doctor Signup
- ❑ Search Filters (Specialization, Ratings, Availability)
- ❑ Doctor Profile Page
- ❑ Booking Interface
- ❑ Doctor Dashboard
- ❑ Admin Approval Panel

8. ADVANTAGES & DISADVANTAGES

Advantages:

- ❑ Simple, clear UI for all roles
- ❑ Real-time appointment visibility
- ❑ Role-based access ensures security and trust

Disadvantages:

- ❑ No in-app chat or consultation link integration
- ❑ No dynamic calendar conflict checker

9. CONCLUSION

DocSpot offers a scalable, secure solution for doctor-patient engagement. Built on the MERN stack, it provides a smooth experience across all roles, helping digitize appointment workflows in healthcare.

10. FUTURE SCOPE

- Real-time chat integration
- Payment gateway (Stripe/PayPal)
- Calendar-based scheduling logic
- Native mobile app deployment

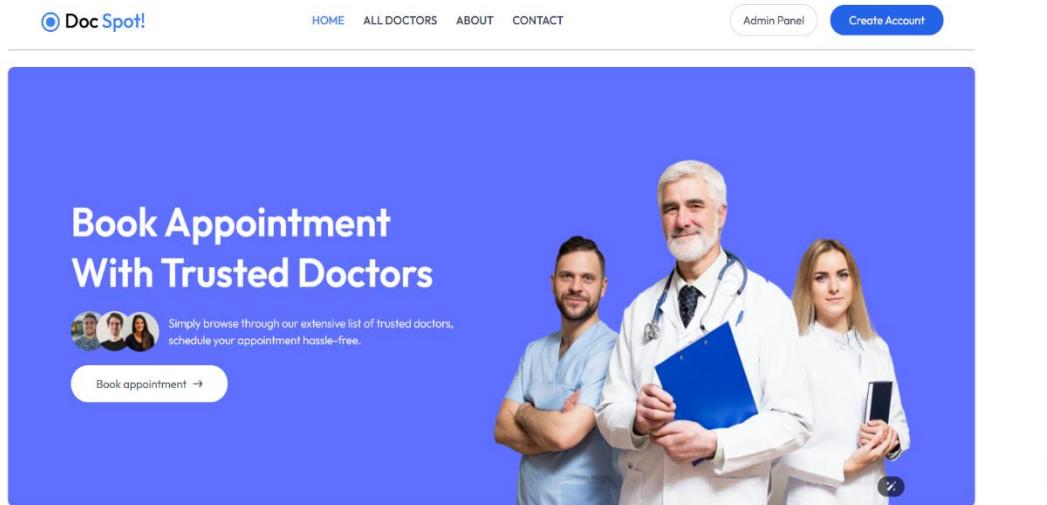
11. APPENDIX

Live Demo:

🔗 <https://docspot-com.vercel.app/>

SCREENSHOTS:

Home Page

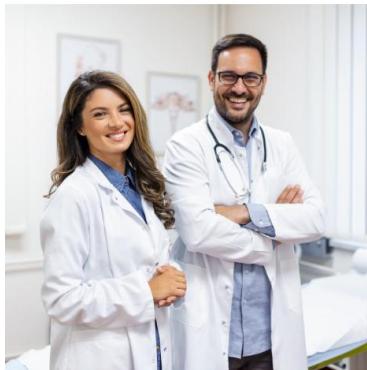


Create Account

A screenshot of the "Create Account" form. The header includes the "Doc Spot!" logo and navigation links: HOME, ALL DOCTORS, ABOUT, CONTACT, Admin Panel, and Create Account. The form itself has a light gray background and a title "Create Account". It contains fields for "Full Name" (placeholder: Enter Full Name), "Email" (placeholder: Enter Email), and "Password" (placeholder: Enter Password). Below these is a large blue "Create Account" button. At the bottom, a link says "Already have an account? [Login here](#)".

About

ABOUT US



Welcome to **DocSpot!**, your trusted partner in connecting patients with healthcare providers. We understand the challenges of finding the right doctor and scheduling appointments that fit your busy lifestyle. Our platform is designed to make healthcare accessible, convenient, and stress-free for everyone.

At DocSpot!, we're committed to revolutionizing healthcare access through technology. Our platform seamlessly connects you with qualified doctors, allowing you to book appointments with just a few clicks. Whether you need a routine check-up, specialist consultation, or ongoing care, we're here to support your health journey every step of the way.

Our Vision

We envision a world where quality healthcare is just a tap away. By bridging the gap between patients and healthcare providers, we're creating a future where everyone has easy access to the medical care they need, when they need it most. Our mission is to make healthcare more accessible, efficient, and patient-centered through innovative technology.

WHY CHOOSE US

Efficiency:

Streamlined Appointment Scheduling
That Fits Into Your Busy Lifestyle

Convenience:

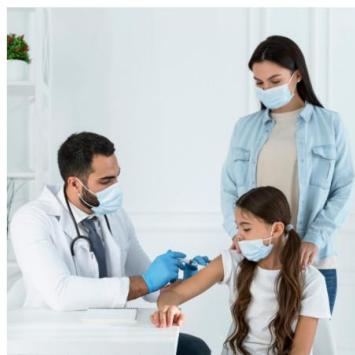
Access To A Network Of Trusted
Healthcare Professionals In Your Area.

Personalization:

Tailored Recommendations And Reminders To
Help You Stay On Top Of Your Health.

Contact Us

CONTACT US



OUR OFFICE

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Careers at DocSpot!

Learn more about our teams and job openings.

[Explore Jobs](#)

Doc Spot!

DocSpot! makes healthcare accessible with seamless appointment booking. Connect with trusted doctors, schedule visits at your convenience, and manage your health journey with ease.

COMPANY

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[Contact us](#)

GET IN TOUCH

+91 XXXXXXXXXX
DocSpot@gmail.com

All Doctors page

Doc Spot!

HOME ALL DOCTORS ABOUT CONTACT Admin Panel Create Account

Browse through the doctors specialist.

General physician
Gynecologist
Dermatologist
Pediatricians
Neurologist
Gastroenterologist

Available Dr. Richard James General physician	Available Dr. Emily Larson Gynecologist	Available Dr. Sarah Patel Dermatologist	Available Dr. Christopher Lee Pediatrician

Doctor Booking page

Doc Spot!

HOME ALL DOCTORS ABOUT CONTACT Admin Panel Create Account



Dr. Richard James

MBBS - General physician 5 Year

About

Dr. Davis has a strong commitment to delivering comprehensive medical care, focusing on preventive medicine, early diagnosis, and effective treatment strategies. Dr. Davis has a strong commitment to delivering comprehensive medical care, focusing on preventive medicine, early diagnosis, and effective treatment strategies.'

Appointment fee: ₹289

Booking slots

SAT 28	SUN 29	MON 30	TUE 1	WED 2	THU 3	FRI 4
02:30 pm	03:00 pm	03:30 pm	04:00 pm	04:30 pm	05:00 pm	05:30 pm
06:00 pm						

Book an appointment

Doctor login

Doctor Login

Email

Password

Login

Admin Login? [Click here](#)

[Back to Home](#)

Admin login

Admin Login

Email

Password

Login

Doctor Login? [Click here](#)

[Back to Home](#)

Admin Dashboard

Doc Spot! Admin Logout

Dashboard Appointments Add Doctor Doctors List

16 Doctors 14 Appointments 7 Patients

Latest Bookings

Doctor	Date & Time	Status
Dr. Sarah Patel	28-JUN-2025, 1:00 PM	Completed
Dr. Emily Larson	28-JUN-2025, 2:00 PM	Completed
Dr. Emily Larson	28-JUN-2025, 1:30 PM	Completed
Dr. Emily Larson	28-JUN-2025, 1:00 PM	Completed
Dr. Richard James	28-JUN-2025, 1:00 PM	Cancelled

Logout

Doctor Dashboard

Doc Spot! Doctor Logout

Dashboard Appointments Profile

₹1791 Earnings 5 Appointments 2 Patients

Latest Bookings

Patient	Date & Time	Status
Pichika Chandu	28-JUN-2025, 2:00 PM	Completed
Pichika Chandu	28-JUN-2025, 1:30 PM	Completed
Pichika Chandu	28-JUN-2025, 1:00 PM	Completed
Pichika Chandu	28-JUN-2025, 12:30 PM	Cancelled
Chanda	27-JUN-2025, 2:00 PM	Cancelled

Logout

Doctor Appointments

Doc Spot! Doctor

Logout

Dashboard Appointments Profile

#	Patient	Payment	Age	Date & Time	Fees	Action
1	Pichika Chandu	CASH	0	28-JUN-2025, 2:00 PM	₹597	Completed
2	Pichika Chandu	CASH	0	28-JUN-2025, 1:30 PM	₹597	Completed
3	Pichika Chandu	CASH	0	28-JUN-2025, 1:00 PM	₹597	Completed
4	Pichika Chandu	CASH	0	28-JUN-2025, 12:30 PM	₹597	Cancelled
5	Chandu	CASH	20	27-JUN-2025, 2:00 PM	₹697	Cancelled

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Doctor Profile

Doc Spot! Doctor

Logout

Dashboard Appointments Profile



Dr. Emily Larson
MBBS - Gynecologist 3 Year

About
Dr. Emily Larson has a strong commitment to delivering comprehensive medical care, focusing on preventive medicine, early diagnosis, and effective treatment strategies. Dr. Davis has a strong commitment to delivering comprehensive medical care, focusing on preventive medicine, early diagnosis, and effective treatment strategies.¹

Appointment fee: ₹597

Address:
27th Cross, Richmond America, Circle, Ring Road, London

Available for Appointments

Edit Profile

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Doctor Availability

Top Doctors to Book

Simply browse through our extensive list of trusted doctors.

 ● Not Available Dr. Richard James General physician	 ● Available Dr. Emily Larson Gynecologist	 ● Not Available Dr. Sarah Patel Dermatologist	 ● Available Dr. Christopher Lee Pediatrician	 ● Not Available Dr. Jennifer Garcia Neurologist
 ● Available Dr. Andrew Williams Neurologist	 ● Available Dr. Christopher Davis General physician	 ● Available Dr. Timothy White Gynecologist	 ● Available Dr. Ava Mitchell Dermatologist	 ● Available Dr. Jeffrey King Pediatrician

