

DocSpot - Final Project Report

Project Title:

DocSpot: Seamless Appointment Booking for Health

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Abstract:

DocSpot is a web-based platform developed using the MERN stack (MongoDB, Express.js, React.js, Node.js), designed to simplify the process of booking doctor appointments. The system bridges the gap between patients and healthcare providers, enabling easy appointment scheduling, doctor availability tracking, and secure communication.

Objectives:

- To create a user-friendly platform for online doctor appointment booking.
- To allow doctors to manage their schedules.
- To maintain a database of patient records and appointments securely.
- To enhance healthcare accessibility through digital tools.

Technology Stack:

- Frontend: React.js
- Backend: Node.js + Express.js
- Database: MongoDB
- Styling: CSS, Bootstrap

- Tools: Postman, VS Code, GitHub

System Modules:

1. Patient Module

- Sign Up / Login
- View Doctors
- Book Appointments
- View History

2. Doctor Module

- Login
- Manage Appointments
- View Patient Info
- Confirm/Reject Requests

3. Admin Module

- Manage Users & Doctors
- View Reports
- System Control Panel

System Architecture:

- Frontend (React) communicates with Backend (Node + Express)
- Backend connects to MongoDB to store and retrieve data.
- API endpoints handle appointment booking, user authentication, and doctor schedules.

Key Features:

- Real-time doctor availability

- Secure patient login and data handling
- Role-based access: Admin, Doctor, Patient
- Responsive UI for mobile and desktop
- Email or notification system integration (optional)

Testing:

- Manual testing for all modules
- Test cases written for login, booking, viewing appointments
- Validated API responses using Postman

Demo Video Link:

<https://drive.google.com/file/d/1LW18sgFxKjPg5zZWJG7ZPxPEFuVuggH0/view?usp=drivesdk>

GitHub Repository:

<https://github.com/satyavasavisv/DocSpot-Seamless-Appointment-Booking-For-Health>

References:

- MongoDB Documentation: <https://www.mongodb.com/docs/>
- React.js Docs: <https://reactjs.org/docs/getting-started.html>
- Node.js Docs: <https://nodejs.org/en/docs>
- Express.js Guide: <https://expressjs.com/en/starter/installing.html>
- SmartInternz Full Stack Java Guidelines: <https://smartinternz.com/>

Conclusion:

DocSpot provides a simplified solution for managing healthcare appointments, reducing the wait time and increasing access to doctors. It can be further extended with features like video consultations, payment gateways, and prescription uploads.