Solution Architecture – Docspot: Seamless Appointment Booking For Health

Team Details

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Project name	Docspot: Seamless Appointment Booking For Health

Project Overview

DocSpot: Seamless Appointment Booking for Health is a digital healthcare platform designed to simplify and streamline the appointment booking process for both patients and healthcare providers. It enables users to search for doctors, apply filters based on specialization, location, and availability, and directly book consultations—all within a unified, integrated MERN-stack web application.

Scenario-Based Case Study

John, a patient, logs in to **DocSpot** to schedule a medical consultation. He uses filters to narrow down his search by location, specialization, and preferred time slot. Upon finding a suitable doctor, Dr. Smith, he sends an appointment request. Dr. Smith reviews and confirms the request. The platform's admin monitors the interactions to ensure compliance and integrity. After confirmation, John receives timely notifications and attends the appointment. The process is secure, efficient, and fully managed within **DocSpot**.

Technical Architecture

The technical architecture of **DocSpot** follows a client-server model built on the MERN stack (MongoDB, Express.js, React, Node.js). The frontend allows patients and doctors to interact with the system, while the backend handles logic and communication using RESTful APIs through Axios. MongoDB provides robust support for storing appointment data, user profiles, schedules, and medical histories. The architecture guarantees secure access, real-time updates, and a smooth experience for patients, doctors, and admins alike.

Solution Architecture Diagram