

**Project Design Phase
Solution Architecture**

Date	28-12-2025
Team ID	
Project Name	MediCareBook – Doctor Appointment Booking
Maximum Marks	4 Marks

Solution Architecture:

The solution architecture for MediCareBook ensures a scalable, secure, and user-friendly doctor appointment booking platform that allows patients to search, find, and book appointments with doctors, while enabling doctors and admins to efficiently manage the healthcare ecosystem. The architecture focuses on smooth navigation, powerful doctor search filters, secure authentication, appointment management, and reliable communication flow to deliver an excellent healthcare booking experience.

- Seamless doctor browsing and searching
- Smooth and hassle-free appointment booking flow
- Scalable and secure user authentication
- Role-based access (User / Patient, Doctor, Admin)
- Real-time appointment status tracking (Pending / Approved / Rejected)
- User profile, appointment history, and notifications
- Doctor dashboard for managing appointments and availability
- Admin monitoring, doctor verification, and platform control
- Highly scalable backend with optimized system performance

Example - Solution Architecture Diagram:

