Project Design Phase-II Technology Stack (Architecture & Stack)

Date	23-06-2025	
Team ID	LTVIP2025TMID52550	
Project Name	DocSpot: Seamless Appointment Booking	
	for Health	
Maximum Marks	4 Marks	

Technical Architecture:

DocSpot is designed with a scalable 3-tier architecture consisting of:

- **Presentation Layer (Frontend):** User-friendly interface for patients and healthcare providers to book and manage appointments.
- Business Logic Layer (Backend): Handles appointment scheduling, notifications, user management, and telehealth integration.
- **Data Storage Layer:** Secure storage of user profiles, appointment records, and healthcare provider details.

Table 1: Components & Technologies

S. No	Component	Description	Technology
1	User Interface	Web and	HTML, CSS,
		mobile- friendly	JavaScript / React.js
		interface for	
		patients and	
		providers	
2	Application Logic-1	Appointment	Node.js, Express.js
		booking, calendar	
		management,	
		reminders	
3	Application Logic-2	Admin panel,	React.js, Node.js
		provider	
		management,	
		reporting	
4	Database	Stores user profiles,	MongoDB
		appointments,	
		provider data	

Table 2: Application Characteristics

S. No	Characteristics	Description	Technology
5	Open-Source	Frontend	React.js, Node.js,
	Frameworks	frameworks	Bootstrap, Tailwind
			CSS
6	Scalable	3-tier architecture	Microservices
	Architectur	with RESTful APIs	
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References:

React.js

Documentation Node js

Best Practice

JSON Web Server Referance

 $\frac{https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d}{}$