<p style="text-align:center"><strong>Project Design Phase-II<br>Technology Stack (Architecture & Stack)</strong></p>

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|---|---|
| Date | 24-12-2025 |
| Team ID | |
| Project Name | MediCareBook – Doctor Appointment Booking |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

**MedicareBook** follows a **3-tier architecture** consisting of the frontend, backend, and database layers. The frontend provides an interactive interface for patients, doctors, and administrators to manage registrations and appointments. The backend handles authentication, doctor approval, and appointment scheduling logic, while the database securely stores user, doctor, and appointment information. This architecture ensures scalability, security, and reliable performance.

**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | Web-based interface for patients and doctors to register, log in, book appointments, and view schedules | HTML, CSS, JavaScript / React Js etc. |
| 2. | Application Logic-1 | Handles user authentication, doctor registration, appointment booking, and appointment status management | Node.js, Express.js |
| 3. | Application Logic-2 | Admin panel for doctor approval, user notifications | React js, Node js management, appointment moni |
| 4. | Database | Stores patient data, doctor profiles, appointment details, availability schedules, and notifications | MongoDB |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 5. | Open-Source Frameworks | Frontend frameworks | React.js, Node.js, BootStrap |
| 6. | Scalable Architecture | 3-tier architecture with RESTful APIs | MVC |