**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| --- | --- |
| Date | 26-11-2025 |
| Team ID |  |
| Project Name | DocSpot |
| Maximum Marks | 4 Marks |

## **Technical Architecture**

The DocSpot platform is designed with a scalable 3‑tier MERN architecture that includes the presentation layer (frontend), business logic layer (backend), and data storage layer. This architecture improves performance, security, and maintainability while enabling easy integration with third‑party services such as email/SMS notifications or payment gateways if required.

## **Table‑1: Components & Technologies**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1 | User Interface | Web‑based interface for patients, doctors, and admins to access DocSpot. | React.js, HTML, CSS, Bootstrap |
| 2 | Application Logic‑1 | Handles authentication, user and doctor management, and appointment APIs. | Node.js, Express.js, JWT, bcrypt |
| 3 | Application Logic‑2 | Admin panel for doctor approval, monitoring, and reports/notifications. | Node.js, Express.js |
| 4 | Database | Stores users, doctors, appointments, and document metadata in collections. | MongoDB (Users, Doctors, Appointments) |

## **Table‑2: Application Characteristics**

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| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 5 | Open‑Source Frameworks | Built entirely using open‑source JavaScript frameworks and tools. | React.js, Node.js, Express.js, MongoDB |
| 6 | Scalable Architecture | 3‑tier architecture with RESTful APIs and document‑oriented DB. | MERN stack, MVC‑style layering |