**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| **Date** | 24-06-2025 |
| **Team ID** | LTVIP2025TMID53914 |
| **Project Name** | **DocSpot:** Seamless Appointment Booking for Health |

**Functional and Non-Functional Requirements Documentation**

**1.Functional Requirements:**

Functional Requirements describe what the system should do — the specific features, services, and tasks the application must perform to meet user needs.

* **User Authentication (FR-1):** Allows users to sign up, log in, and reset passwords securely using JWT tokens.
* **Appointment Booking (FR-2):** Users can book, reschedule, or cancel appointments with doctors.

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| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
| FR-1 | User Authentication | Sign up, Login, Password Reset |
| FR-2 | Appointment Booking | Search doctors by specialty, location, and availability  Book, reschedule, and cancel appointments |
| FR-3 | Calendar & Schedule  Management | Freelancers apply to jobs View upcoming and past appointments |
| FR-4 | Notifications & Reminders | Automated SMS/email reminders for upcoming appointments |

**2.Non-Functional Requirements:**

Non-Functional Requirements define how the system performs — these include quality attributes such as performance, security, usability, and scalability.

* **Security (NFR-2):** Uses JWT for authentication and bcrypt for password encryption.

* **Usability (NFR-1):** UI built with React, MUI, and Bootstrap for a smooth, responsive user experience.

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| NFR No. | Non-Functional Requirement Description |
| NFR-1 | Usability: The platform should provide a simple, clean UI for all users, including patients and healthcare providers. |
| NFR-2 | Security: All patient and appointment data must be encrypted. Implement rolebased access and secure authentication. |
| NFR-3 | Reliability: Appointment booking, notifications, and telehealth services must always be available and dependable. |
| NFR-4 | Performance: Pages and booking actions should be loaded within 2 seconds; reminders and notifications should be timely. |
| NFR-5 | Availability: The system should ensure 99.9% uptime with minimal downtime. |
| NFR-6 | Scalability: Support a growing number of users, providers, and concurrent bookings without degradation. |