FRD Online Appointment System for Clinic

**Introduction:**

This Functional Requirements Document (FRD) outlines the functional specifications for the development of an **Online Appointment Booking System** for clinics. It provides detailed guidance to the development team for building a system that meets defined business objectives within time and budget constraints.

The FRD differs from the Business Requirements Document (BRD) by focusing on **“how”** the system will work, rather than **“what”** the business wants to achieve. For example, while the BRD may state the objective of attracting new patients, the FRD defines features like easy account creation and intuitive appointment flows to support that goal.

**Intended Audience:**

* Clinic Manager (Admin)
* Doctors
* Receptionists
* Patients
* Product/Development Team

**Functional Requirements:**

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| The system shall allow patients to securely log in and view available doctors. |

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|  | The system shall display available time slots based on the doctor’s schedule. |

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|  | Upon selecting a doctor and time, a notification shall be sent to the receptionist. |

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|  | The receptionist shall verify the doctor’s availability and confirm or reschedule the appointment. |

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|  | The doctor shall be able to view their schedule, reject, or reschedule appointments in case of conflicts or emergencies. |

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|  | The system shall notify patients via SMS/email/WhatsApp when an appointment is confirmed, modified, or cancelled. |

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|  | The receptionist shall be able to view all daily appointments and flag potential schedule clashes. |

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|  | In case of a clash, the receptionist shall follow a FIFO-based approach and offer alternate slots to the most recent patient. |

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|  | Patients shall be able to cancel or reschedule appointments via the system. |

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|  | The system shall maintain historical records of patient reports, visits, and test results. |

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|  | Only the Clinic Manager shall be able to generate and get approved reports by doctor that are shared with patients. |

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|  | Role-based access shall be enforced for Patients, Receptionists, Doctors, and Clinic Manager. |

**Use Cases:**

| **Use Case** | **Actor** | **Action** | **System Response** |
| --- | --- | --- | --- |
| Book Appointment | Patient | Selects doctor and slot | Sends request to Receptionist |
| Approve Appointment | Receptionist | Confirms based on schedule | Notifies patient and doctor |
| Manage Schedule | Doctor | Views or rejects appointment | Notifies patient and updates system |
| Reschedule | Patient | Chooses alternate slot | Notifies receptionist and doctor |
| Generate Report | Clinic Manager | Generates report after doctor approval | Shares with patient through app |

**Input And outputs:**

Patient Booking**:**

* Inputs**:** Name, DOB, Age, Address, Contact Number, Problem Description, Past Medical Condition
* Output**:** Appointment Confirmation or Reschedule Message

Doctor Appointment View:

* Inputs**:** Date, Time Slot, Patient Name, Age, Concern
* Output**:** View/Edit Option, Notifications

**Validation Inputs:**

| Input Field | Validation |
| --- | --- |
| Phone Number | Must be a valid 10-digit number |
| Time Slot | Must be in the future; past time not allowed |
| Problem Description | Required; can be in local language (converted to English for doctor convenience) |
| Doctor Availability | Show only available slots |

**Non-Functional Requirements (NFRs)**

| NFR Category | Requirement |
| --- | --- |
| Performance | The system should send real-time notifications within 2 seconds of action. |
| Responsiveness | System must be compatible with both web and mobile browsers. |
| Security | Two-step authentication (OTP) required for all users. |
| Audit Control | Receptionist actions should be logged and visible to the Clinic Manager for oversight. |
| Availability | System uptime should be at least 99%; in case of scheduled maintenance, users must be notified in advance via SMS or WhatsApp. |