Software Requirements Specification (SRS)

# Online Appointment Booking System for Clinics

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# 1. Introduction

## 1.1 Purpose

This document outlines the Software Requirements Specification (SRS) for the Online Appointment Booking System. It is intended for stakeholders including the clinic manager, doctors, receptionists, patients, and the development team. The SRS ensures all parties have a clear understanding of the system's goals, constraints, and behavior before development begins.

## 1.2 Scope

The system will allow patients to book, cancel, and reschedule appointments with doctors via a user-friendly web and mobile platform. Receptionists will manage scheduling conflicts, and doctors will view and modify their schedules. Clinic managers will oversee all activity and generate approved medical reports. The current version does not include online payments or insurance integration.

## 1.3 Definitions, Acronyms, and Abbreviations

- SRS: Software Requirements Specification  
- UI: User Interface  
- OTP: One-Time Password  
- FIFO: First In First Out  
- NFR: Non-Functional Requirement

## 1.4 References

- Business Requirements Document (BRD)  
- Functional Requirements Document (FRD)  
- User Stories Document  
- Project Scope Document

## 1.5 Overview

This document is structured into overall system description, functional and non-functional requirements, external interfaces, and business rules.

# 2. Overall Description

## 2.1 Product Perspective

The system is standalone but may integrate with external APIs (e.g., SMS gateway, calendar API) for notifications and scheduling.

## 2.2 Product Functions

- Patient appointment booking, rescheduling, and cancellation  
- Doctor schedule management and approval  
- Receptionist conflict resolution  
- Role-based login and access  
- Report generation and sharing  
- Real-time notifications

## 2.3 User Classes and Characteristics

- Patient: Books appointments and views history  
- Doctor: Manages schedule and approves/cancels bookings  
- Receptionist: Handles conflicts and appointment logistics  
- Clinic Manager: Oversees operations and generates reports

## 2.4 Operating Environment

- Web and mobile browser support (Chrome recommended)  
- Compatible with tablets and smartphones  
- Backend compatible with cloud/server deployment

## 2.5 Constraints

- Budget constraints require prioritization of features  
- Latest technology must be validated by project manager  
- Confidential patient data must be inaccessible to receptionists  
- Time-bound delivery due to limited funding

## 2.6 Assumptions and Dependencies

- Users possess basic digital literacy  
- Clinics have reliable internet and devices  
- Emergency appointments may override schedule  
- The system depends on SMS gateways and calendar integration services

# 3. Specific Requirements

## 3.1 Functional Requirements

- Patients must be able to register/login with two-step authentication  
- Patients can select a doctor and preferred time slot  
- The system checks doctor availability and notifies receptionist  
- Receptionist confirms or reschedules based on doctor input  
- Doctor can accept, reject, or reschedule appointments  
- All parties receive notifications (SMS/email/WhatsApp)  
- One active appointment allowed per patient  
- Receptionist follows FIFO in case of conflicts  
- Medical reports shared via PDF after doctor approval  
- Emergency scheduling override allowed by doctor

## 3.2 Non-Functional Requirements

- System must respond within 2 seconds to user actions  
- Must be compatible with both fast and slow internet connections  
- Must be accessible 24/7 with prior maintenance notifications  
- Secure two-step authentication for all user types  
- Must ensure confidentiality of patient medical data  
- Audit trail to track receptionist actions

## 3.3 External Interface Requirements

- UI: Simple, responsive design for web/mobile  
- APIs: Integration with SMS services and calendar systems  
- Reports: Export medical records as PDF to doctor, then to patient post-approval

## 3.4 Business Rules

- One doctor per appointment  
- Receptionist must use FIFO for scheduling conflicts  
- Patient should receive prompt message if doctor cancels or reschedules  
- Receptionist and patient must be informed of doctor availability in emergencies  
- No confidential data should be exposed to receptionist

# 4. Appendices

- Use Case Diagram (attached)  
- Process Flow Diagram (attached)  
- References to BRD, FRD, and User Stories

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End of SRS Document