

### Requirements Traceability Matrix (RTM)

Requirement Id	Requirement description	Priority (MoSCoW)	Stakeholder (s)	Project objective	Related data file	Status
<b>FR-01</b>	The system allow patients to select and book appointment times in real time based on doctors' availability.	Must have	Patient, Doctor, Administrator staff	Enhance appointment experience and reduce patient wait times through real-time scheduling.	Appointment_data.csv Feedback_data.csv	Approved
<b>FR-02</b>	The system send automated notifications to patients and doctors for appointment confirmations, cancellations, and updates.	Must have	Patient, doctor	Improve communication and reduce missed or delayed appointments by implementing automated notifications.	Feedback_data.csv Appointment_data.csv	Approved
<b>FR-03</b>	The system prevent duplicate bookings for both patients and doctors through validation and conflict-checking mechanisms	Must have	Administrator staff , Patient, doctor	Ensure accuracy and efficiency in scheduling by eliminating duplicate bookings.	Appointment_data.csv	Approved
<b>FR-04</b>	The system provide a real-time dashboard to hospital staff	Could have	nurse, doctor,	Support informed decision-	Resource_data.csv	Proposed

	displaying patient volumes, appointment schedules, and waiting time statistics.		administrator staff	making and resource allocation through real-time operational insights.		
<b>FR-05</b>	The system integrate appointment scheduling with the medical record system to ensure accurate and centralized patient information.	Must have	IT team, doctor, administrator staff	Improve patient care and operational efficiency by integrating appointment scheduling with medical records into a centralized system.	Appointment_data.csv	Approved
<b>NFR-01</b>	The system support concurrent usage by a large number of patients and doctors without performance degradation.	Should have	IT team	Ensure scalability and system reliability under high demand.	Appointment_data.csv Resource_data.csv	Proposed
<b>NFR-02</b>	The system maintain high availability with a minimum uptime of 99.9% to ensure uninterrupted access.	Could have	IT Team, Patient, Doctor, Administrative Staff	Guarantee continuous access to critical healthcare services through high system availability.	Feedback_data.csv	Proposed

<b>NFR-03</b>	The system provide a user-friendly interface that is intuitive and easy to navigate for patients, doctors, and administrative staff.	Should have	Patient, Administrator staff	Enhance user adoption and satisfaction by delivering an intuitive, easy-to-use interface.	Feedback_data.csv	Proposed
<b>NFR-04</b>	The system ensure the confidentiality, integrity, and protection of patient information in compliance with healthcare data privacy standards.	Must have	IT Team, Patient, Doctor, Administrative Staff	Protect patient data and ensure compliance with healthcare privacy regulations.		Approved
<b>NFR-05</b>	The system be scalable to support future growth in patient volume, additional departments, and expanded functionality.	Won't have	IT team	Enable long-term flexibility and adaptability of the system to support organizational growth.		Deferred