Develop a Requirements Traceability Matrix (RTM)

Must Have:

- **Automated Appointment Scheduling:** Develop a system that allows patients to book, modify, and cancel appointments online.

- **Ensure the system automatically checks and updates calendar availability in real-time.**

- **Double Booking Prevention:** Implement mechanisms to detect and prevent overlapping appointments.

- These requirements are essential because they directly address the core problems of the current system: long wait times and double bookings.

Should Have:

- **Real-Time Notifications:** Enable automated email and SMS alerts for appointment confirmations, cancellations, and updates.

- This requirement is important for improving patient communication and reducing no-shows, but the system can still function without it.

Could Have:

- **Integrated Resource Management:** Connect the scheduling platform to existing hospital resource systems for seamless allocation of equipment and staff.

- While this would improve resource optimization, the core scheduling issues can be addressed without it.

Won't Have:

- Redesigning clinical workflows or altering medical procedures.

- Overhauling non-IT operational processes unrelated to scheduling.

- Any enhancements outside the realm of scheduling, notifications, or resource visibility.

- These are explicitly stated as out-of-scope for the project.