# Requirements Traceability Matrix (RTM)

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| **Requirement ID** | **Requirement description** | **Priority (MoSCoW)** | **Stakeholder(s)** | **Project objective** | **Related data file** | **Status** |
| FR1 | Automate appointment scheduling with conflict detection | Must Have | Administrative Staff | Reduce wait times and scheduling errors | appointment\_data.csv | Approved |
| FR2 | Implement real-time SMS/email notifications for appointment updates | Must Have | Patients, IT Team | Improve communication and patient satisfaction | feedback\_data.csv | Approved |
| FR3 | Integrate scheduling, resource, and record management systems | Must Have | IT Team, Doctors, Nurses | Eliminate data silos and improve coordination | resource\_data.csv | Approved |
| FR4 | Create a resource tracking dashboard for staff and equipment | Should Have | Doctors, Nurses | Optimize resource allocation and reduce delays | resource\_data.csv | Approved |
| FR5 | Enable secure, role-based access for all system users | Should Have | IT Team | Protect patient information and system integrity | N/A | Approved |
| FR6 | Add a feedback module for post-appointment surveys | Could Have | Patients, Administrative Staff | Monitor service quality and support improvement | feedback\_data.csv | Pending |
| NFR1 | Maintain system uptime of at least 99.5% | Must Have | IT Team | Ensure reliability of hospital operations | N/A | Approved |
| NFR2 | Ensure data security and HIPAA/PHIPA compliance | Must Have | IT Team, Administrative Staff | Maintain data privacy and legal compliance | N/A | Approved |
| NFR3 | Design user-friendly and accessible interfaces (WCAG 2.1) | Should Have | Patients, Administrative Staff | Improve ease of use and accessibility | feedback\_data.csv | Pending |
| NFR4 | Use scalable, cloud-based infrastructure for future growth | Should Have | IT Team | Support expansion and long-term sustainability | resource\_data.csv | Approved |

## Findings from Data Files

- appointment\_data.csv: Conflicting appointment slots found during peak hours → supports automation (FR1).

- feedback\_data.csv: Over 70% of patients report delayed updates → justifies real-time notifications (FR2).

- resource\_data.csv: Shortages of staff and equipment during peak periods → validates need for integration and tracking (FR3, FR4).