Advanced Web Development

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Medical Appointment Web System - Features

Feature 0: Core CRUD.

Req. ID	Grouped Requirement Description	Roles Involved	Type
RF-P.1, RF-P.2	Secure **Registration and Authentication** (Login) for Patients.	Patient	Functional (User CRUD)
RF-A.1	**User Management** (CRUD for Doctors and Administrators), including roles.	Administrator	Functional (User CRUD)
RF-A.2	**Management** (CRUD) of Physical Resources (Consultation Rooms, Equipment).	Administrator	Functional (Resource CRUD)

RNF-C.3	Web interface **Portability and Compatibility**.	All	Non-Functional (Technical)

Feature 1: Appointment Scheduling and Management

Req. ID	Grouped Requirement Description	Roles Involved	Type
RF-P.3 , RF-P.4	Appointment **Search** by Doctor/Specialty/Date and Dynamic **Available Slot Calculation**.	Patient	Functional (Query/Calculation)
RF-P.5	**Booking** a New Appointment by the Patient.	Patient	Functional (Create Appointment)
RF-P.6	**Modification or Cancellation** of an Existing Appointment by the Patient.	Patient	Functional (Update/Delete Appointment)
RF-P.7	Automated **Appointment Reminder** Sending (Email/SMS).	Patient	Functional (Communication)
RNF-P. 1	Performance Requirement: **Fast response time** for slot search (≤ 3 seconds).	Patient	Non-Functional (Performance)
RNF-C .1	**Usability** of the Patient Interface.	Patient	Non-Functional (Usability)

Feature 2: Consultation and EHR Administration

Req. ID	Grouped Requirement Description	Roles Involved	Type
RF-D.1, RF-D.2	**Work Schedule Configuration** and Display of the Doctor's Consolidated Calendar.	Doctor	Functional (Schedule CRUD/View)
RF-D.3	**Integration and Secure Access** to the Patient's Electronic Health Record (EHR) before the consultation.	Doctor	Functional (Integration/Read)
RF-D.4	**Update of Appointment Status** (*In Progress*, *Completed*, etc.).	Doctor	Functional (Status Update)
RF-D.5	**Attachment of New Diagnosis/Prescription Notes** to the EHR after the consultation.	Doctor	Functional (Integration/Update)
RNF-S.2, RNF-S.3	**Confidentiality and Traceability** in the handling of medical data.	Doctor	Non-Functional (Security)

Feature 3: Operations and Management Reporting

Req. ID	Grouped Requirement Description	Roles Involved	Type

RF-A.3	Generation of **Performance Reports and Comparisons** (TC, AR, ACT, CR, PSI, OEI).	Administrator	Functional (Reporting/Analysis)
RF-A.4	Dynamic **Billing Generation** based on Services, Duration, and Insurance.	Administrator	Functional (Billing)
RF-A.5	**Transaction Audit Module** with logging of critical actions and timestamps.	Administrator	Functional (Compliance/Audit)
RF-P.8	Enabling the **Post-Visit Patient Satisfaction Survey** (PSI).	Patient/Administrator	Functional (Data Collection)
RNF-A.4	Strict **Compliance** with Health Data Privacy Regulations.	Administrator	Non-Functional (Legal)
RNF-P.2	Concurrency Requirement	All	Non-Functional (Performance)
RNF-C.2	**Maintainability** of the Source Code.	Development Team	Non-Functional (Maintainability)