

MediAid

Usercase & TestCase

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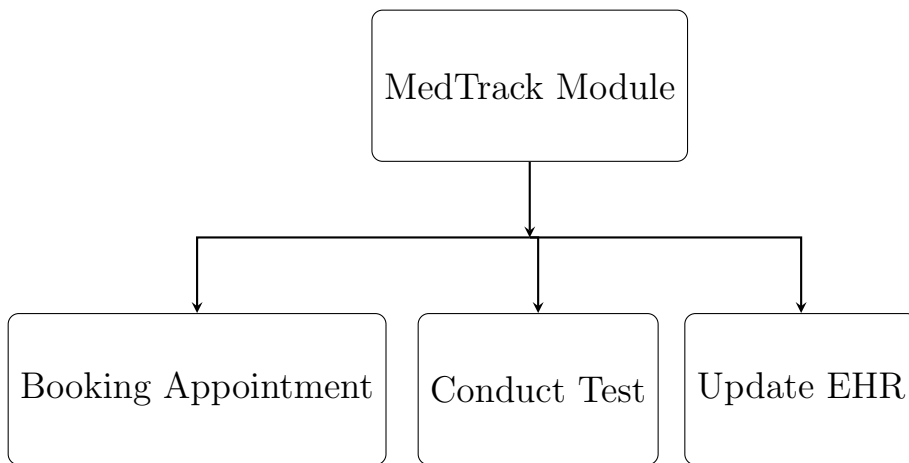
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Updated Structure



Use Case: Filter Doctor by Specialization and Name

| Attribute | Description |
|-------------------|--|
| Use Case Name | Filter Doctor by Specialization and Name |
| Scenario | A patient filters doctors based on a specific specialization and Name |
| Primary Actor | Patient |
| Supporting Actors | System |
| Preconditions | <ul style="list-style-type: none">• The system has an up-to-date list of doctors, their specializations.• The patient is logged in and has access to the search and filter functionalities. |
| Steps | <ol style="list-style-type: none">1. Patient enters the desired specialization or can select doctor's name .2. The system retrieves and filters the list of doctors based on both the specialization and name.3. System displays the filtered list of doctors who match the specified criteria.4. Patient selects a doctor from the list to view more details or book an appointment. |
| Postconditions | <ul style="list-style-type: none">• The list of doctors matching both the specialization and name are displayed to the patient. |

Test Cases for Filter Doctor by Specialization and Name

| Test Case | Description | Input | Expected Outcome | Status |
|-------------------------------|---|---|---|---------|
| Valid Specialization and Name | Filter doctors by valid specialization and name | <ul style="list-style-type: none"> • Specialization: "Cardiology" • Name: "Dr. Smith" | List of doctors matching "Cardiology" and "Dr. Smith" displayed | Success |
| Specialization Only | Filter by specialization only | <ul style="list-style-type: none"> • Specialization: "Dermatology" • Name: (empty) | List of dermatologists displayed | Success |
| Name Only | Filter by name only | <ul style="list-style-type: none"> • Specialization: (empty) • Name: "Dr. Johnson" | List of doctors named "Dr. Johnson" displayed | Success |

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| No Matching Results | Filter with a specialization and name that don't match | <ul style="list-style-type: none"> • Specialization: "Neurology" • Name: "Dr. Unknown" | No doctors found matching criteria | No Results |
| Specialization with Invalid Name | Filter with a valid specialization and invalid name | <ul style="list-style-type: none"> • Specialization: "Orthopedics" • Name: "Dr. Invalid!" | Error: Invalid name format | Bad Request |

Use Case: Book Appointment

| Attribute | Description |
|-------------------|--|
| Use Case Name | Book Appointment |
| Scenario | A patient books an appointment with a doctor |
| Primary Actor | Patient |
| Supporting Actors | System |
| Preconditions | <ul style="list-style-type: none">• Patient is registered |
| Steps | <ol style="list-style-type: none">1. Patient selects a doctor2. Patient chooses an appointment type (on-line/offline)3. Patient selects a suitable timeslot4. System confirms booking |
| Postconditions | <ol style="list-style-type: none">1. Appointment is successfully scheduled |

Test Cases for Book Appointment

| Test Case | Description | Input | Expected Outcome | Status |
|----------------------------|--|---|-----------------------------|-------------|
| Valid Appointment Booking | Book an appointment with valid inputs | <ul style="list-style-type: none">• Doctor ID: 12345• Appointment Type: Online• Timeslot: 10:00 AM - 10:30 AM• Status: Available | Booking Step confirmed | Success |
| Invalid Timeslot Selection | Attempt to book an appointment with unavailable slot | <ul style="list-style-type: none">• Doctor ID: 12345• Appointment Type: Online• Timeslot: 10:00 AM - 10:30 AM• Status: Unavailable | Error: Timeslot unavailable | Bad Request |

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| Offline Appointment Booking | Book an offline appointment | <ul style="list-style-type: none"> • Doctor ID: 12345 • Appointment Type: Offline • Timeslot: 10:00 AM - 10:30 AM • Status: Available | Booking confirmed | Success |
| Double Booking | Book an appointment for an already-booked slot | <ul style="list-style-type: none"> • Doctor ID: 12345 • Appointment Type: Online • Timeslot: Already Booked | Error: Timeslot unavailable | Bad Request |

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| Same Doctor, Different Timeslot | Book multiple appointments with the same doctor in different timeslots | <ul style="list-style-type: none"> • Doctor ID: 12345 • Appointment Type: Online • Available Timeslots: 10:00 AM - 10:30 AM, 11:00 AM - 11:30 AM, 2:00 PM - 2:30 PM | Multiple bookings confirmed | Success |
|---------------------------------|--|--|-----------------------------|---------|

Use Case: Request Diagnostic Test

| Attribute | Description |
|-------------------|--|
| Use Case Name | Request Diagnostic Test |
| Scenario | Doctor requests a diagnostic test for a patient |
| Primary Actor | Doctor |
| Supporting Actors | System, Diagnostic Center |
| Preconditions | <ul style="list-style-type: none">• Patient has consulted with doctor• Initial Diagnosis Done |
| Steps | <ol style="list-style-type: none">1. Doctor selects diagnostic test2. System processes request and notifies the diagnostic center |
| Postconditions | Diagnostic test is requested |

Test Cases for Request Diagnostic Test

| Test Case | Description | Input | Expected Outcome | status |
|---------------------------------|--|---|------------------------------------|-------------|
| Valid Diagnostic Test Request | Doctor requests a valid diagnostic test | <ul style="list-style-type: none"> • Test Name: Blood Test • Patient ID: 67890 | Test request submitted | Success |
| Invalid Diagnostic Test Request | Doctor requests a test without patient info | <ul style="list-style-type: none"> • Test Name: Blood Test • Missing Patient ID: null | Error: Missing patient information | Bad Request |
| Invalid Test Name | Request a diagnostic test with an unsupported test | <ul style="list-style-type: none"> • Test Name: NonexistentTest • Patient ID: 67890 | Error: Unsupported test | Bad Request |
| Multiple Tests Requested | Request multiple diagnostic tests for same patient | <ul style="list-style-type: none"> • Test Names: Blood Test, X-Ray, MRI • Patient ID: 67890 | Tests requested successfully | Success |

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| Test Re- quest with Urgency Level | Request test with an urgency level specified | <ul style="list-style-type: none"> • Test Name: Blood Test • Patient ID: 67890 • Urgency: High | Test requested with urgency | Success |
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Use Case for Prescribe Medicine After Reviewing Drug History(if available)

| Attribute | Description |
|-------------------|--|
| Use Case Name | Prescribe Medicine After Reviewing Drug History(if available) |
| Scenario | A doctor reviews the patient's drug history (if available) before prescribing a new medication |
| Primary Actor | Doctor |
| Supporting Actors | Patient, System |
| Preconditions | <ul style="list-style-type: none">• Doctor is logged in and authorized to access the patient's drug history• Doctor has scheduled a consultation with the patient |

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| Steps | <ol style="list-style-type: none"> 1. Doctor accesses the patient's drug history via the system 2. If drug history is available, the system retrieves and displays it for review 3. Doctor analyzes the drug history (if available) to check for any potential interactions 4. Doctor selects medication and dosage for prescription based on analysis 5. Doctor submits the prescription through the system 6. System verifies and saves the prescription 7. System notifies the patient of the prescribed medication |
| PostConditions | <ul style="list-style-type: none"> • Prescription is successfully submitted and available in the patient's medical records |

Test Cases for Prescribe Medicine After Reviewing Drug History(if available)

| Test Case | Description | Input | Expected Outcome | Status |
|---|--|--|---|--------------|
| Prescription Without Drug History | Prescribe medication when no drug history is available | <ul style="list-style-type: none"> • Patient ID: 67890 • Medication: Amoxicillin • Dosage: 500 mg | Prescription saved and patient notified | Success |
| Prescription With Drug History | Prescribe medication after successful review of drug history | <ul style="list-style-type: none"> • Patient ID: 67890 • Medication: Amoxicillin • Dosage: 500 mg | Warning: Potential drug interaction displayed and Prescription saved and patient notified | Success |
| Unauthorized Access Attempt for session expired | Doctor tries to access drug history after session expiry | <ul style="list-style-type: none"> • Expired session token | Error: Session expired, re-login required | Unauthorized |

Use Case for Request EHR Update

| Attribute | Description |
|-------------------|--|
| Use Case Name | Request EHR Update |
| Scenario | A healthcare provider requests to update a patient's Electronic Health Record (EHR) with new or corrected medical information, and the system updates the EHR after a diagnostic test is conducted. |
| Primary Actor | Healthcare Provider, System |
| Supporting Actors | Diagnostic System |
| Preconditions | <ul style="list-style-type: none">• Provider must be authenticated and authorized to access and update EHR records.• Diagnostic test has been completed and verified.• Patient's EHR data is accessible in the system. |
| Steps | <ol style="list-style-type: none">1. Diagnostic test is conducted and completed by the Healthcare Provider in the diagnostic system.2. Healthcare Provider sends test results to the system.3. System updates the patient's record with the new test results.4. System notifies the patient about the update. |

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| Postconditions | <ul style="list-style-type: none">• The patient's EHR is updated with new medical information, test results, or corrections, which are securely saved in the system. |
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Test Cases for Request EHR Update

| Test Case | Description | Input | Expected Outcome | Status |
|---------------------------------------|--|--|-----------------------------|-------------|
| Valid EHR Update with Multiple Fields | Request an EHR update with multiple new health records | <ul style="list-style-type: none">• Updated Symptoms: Cough, Fatigue, Headache• Medications: Ibuprofen, Cough Syrup | EHR updated successfully | Success |
| Duplicate EHR Update | Submit the same update twice | <ul style="list-style-type: none">• Patient ID: 67890• New Medical Info: Allergic to Penicillin | Error: Duplicate entry | Bad Request |
| Large Volume EHR Update | Attempt to update with a large number of records | <ul style="list-style-type: none">• Patient IDs: 12345, 12346, 12347, ..., 12445 | EHR updated with pagination | Success |

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| Data Conflict in EHR | Test EHR update when conflicting data is present in existing EHR | <ul style="list-style-type: none"> • Test Name: Blood Test • Patient ID: 67890 • Conflicting Test Result: Elevated Cholesterol • Existing Data: Normal Cholesterol Levels | Warning: Conflicting data; manual review required | Warning |
|----------------------|--|---|---|---------|