Extended Use Case Details

1. Title: Show "Invalid Credentials" Message

Actor: Patient / Doctor / Admin

Scenario:
When any user (Patient, Doctor, or Admin) enters incorrect login details (username or password), the system detects the mismatch and shows an "Invalid Credentials" message.
The system will not allow access to any internal page until valid login information is entered.
Users can re-enter their correct information to try again.

Precondition:

- User has already registered in the system.

- User is trying to log in using the provided username and password.

- The system is connected to the database to verify login details.

Postcondition:

- **Successful:** User enters correct credentials and successfully logs in.

- **Unsuccessful:** User sees "Invalid Credentials" message and remains on the login page.

Exception:

- If too many wrong attempts are made, the system may temporarily block login for security.

- Stay on the same page to re-enter credentials.

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2. Title: Suggest Alternative Slot

Actor: Patient

Scenario:
When a patient tries to book an appointment but the selected slot is already taken, the system automatically searches for nearby available slots.
It then suggests alternative time slots so the patient can easily pick another one without restarting the booking process.

Precondition:

- Patient must be logged in.

- Appointment booking feature is active.

- The doctor's schedule is already stored in the database.

Postcondition:

- **Successful:** The system shows one or more alternative slots.

- **Unsuccessful:** The system shows "No Slots Available" message.

Exception:

- If database or network issue occurs, the system may fail to show suggested slots and ask to retry.

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3. Title: Show "Time Unavailable" Message

Actor: Patient

Scenario:
If a patient tries to book or reschedule an appointment for a time that is already booked or outside working hours, the system shows a "Time Unavailable" message.
The patient must choose a different time to continue.

Precondition:

- The patient must be logged in.

- The system has access to the appointment schedule.

Postcondition:

- **Successful:** Patient selects a valid available time.

- **Unsuccessful:** Patient remains on the same page until a valid time is chosen.

Exception:

- If there's a time synchronization issue between client and server, booking may fail.

- Stay on the same page to retry.

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4. Title: Show "Please Enter Mandatory Details"

Actor: Doctor / Admin / Support Staff

Scenario:
When a user tries to add or update a medical record but leaves some mandatory fields (like Patient ID or Diagnosis) empty, the system shows a "Please Enter Mandatory Details" message.
The form cannot be submitted until all required fields are filled in correctly.

Precondition:

- User is logged in as Doctor, Admin, or Support Staff.

- The form for adding or updating records is open.

Postcondition:

- **Successful:** User fills all required fields and saves the record.

- **Unsuccessful:** The record is not saved, and an error message is shown.

Exception:

- If input validation script fails, the page may reload and lose unsaved data.

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5. Title: Send Appointment Confirmation

Actor: Admin / System

Scenario:
After an appointment is successfully booked, the system automatically sends a confirmation message (email or SMS) to the patient and doctor. The message includes the appointment time, date, and doctor details.

Precondition:

- Appointment booking process is completed successfully.

- Valid email or phone number is stored in the user's profile.

Postcondition:

- **Successful:** Appointment confirmation is sent and logged in the system.

- **Unsuccessful:** Message sending fails but appointment remains booked.

Exception:

- Network failure or invalid contact info may prevent sending the message.

- System retries or logs the failure.

6. Title: Filter by Date or Patient

Actor: Doctor / Admin

Scenario:
When viewing appointments, the user can filter the list by date or by patient name. This helps to find specific appointments quickly. If the filter is not valid or no data is found, an empty result is displayed.

Precondition:

- User must be logged in.

- Appointment data must be available in the database.

Postcondition:

- **Successful:** Appointments filtered and displayed.

- **Unsuccessful:** No result found for given filter.

Exception:

- Database query timeout can occur if too many filters are applied.

7. Title: Validate Required Fields

Actor: System

Scenario:
Before saving any form (for login, registration, appointment, or report), the system checks if all required fields are filled correctly. This prevents incomplete or invalid data from being stored.

Precondition:

- User is filling up a form.
- System validation scripts are active.

Postcondition:

- **Successful:** Data passes validation and is saved.
- **Unsuccessful:** System shows validation error message.

Exception:

- Validation script may fail due to network lag or browser issue.

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8. Title: Show Error Message While Saving Report

Actor: Admin / Support Staff

Scenario:
If the system faces a problem while saving a lab report or other medical record (for example, network failure or missing data), it displays an error message asking the user to try again.

Precondition:

- Report form is filled.
- Internet connection is stable.

Postcondition:

- **Successful:** Report saved properly.

- **Unsuccessful:** Report not saved; error message shown.

Exception:

- System crash or timeout can cause the user to lose unsaved work.

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9. Title: Show "Error While Removing Medical Record"

Actor: Support Staff / Admin

Scenario:
When a user tries to delete a medical record that doesn't exist or is already removed, the system shows an error message and stops the operation.

Precondition:

- User logged in with proper permission.

- Record ID must be valid.

Postcondition:

- **Successful:** Record successfully deleted.

- **Unsuccessful:** Error shown, and record remains unchanged.

Exception:

- If system crashes during deletion, partial changes may occur.

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10. Title: Validate Input Data

Actor: System

Scenario:

Every time a user enters data — during login, registration, appointment booking, or report creation — the system checks the input format (for example, valid email, correct date, etc.).
If anything is wrong, it alerts the user.

Precondition:

- User is entering data in any form.

Postcondition:

- **Successful:** Input passes validation.

- **Unsuccessful:** Error message displayed.

Exception:

- JavaScript or validation code error can cause wrong results.