Test cases for the ***E-HealthCare Management System***, focusing on user role functionalities, data management, and system interactions:

**1. Patient Registration Test Case**

* **Objective**: Verify that a new patient can register successfully.
* **Preconditions**: Access to the registration form.
* **Test Steps**:
  1. Open the registration form.
  2. Enter valid details (e.g., name, age, gender, contact info).
  3. Submit the form.
* **Expected Result**: Registration is successful, and patient data is stored in the database.
* **Postconditions**: The system should display a confirmation message and redirect to the patient dashboard.

**2. Role-Based Dashboard Access Test Case**

* **Objective**: Ensure that each user role (doctor, patient, admin) can only access its specific dashboard.
* **Preconditions**: User login functionality is implemented.
* **Test Steps**:
  1. Log in as a patient and verify that the patient dashboard is displayed.
  2. Log in as a doctor and verify that the doctor dashboard is displayed.
  3. Log in as an admin and verify access to the admin dashboard.
* **Expected Result**: Each role should only access its specific dashboard.
* **Postconditions**: Non-authorized pages are inaccessible.

**3. Appointment Booking Test Case**

* **Objective**: Confirm that a patient can book an appointment with an available doctor.
* **Preconditions**: Patient and doctor accounts are active; doctor has available time slots.
* **Test Steps**:
  1. Log in as a patient.
  2. Navigate to the appointment booking section.
  3. Select a doctor and an available time slot.
  4. Confirm booking.
* **Expected Result**: Appointment is successfully booked, and both the patient and doctor receive a confirmation.
* **Postconditions**: Appointment is visible in both patient and doctor dashboards.

**4. Data Validation on Patient Medical Record Entry**

* **Objective**: Ensure that only valid and complete data is entered into the patient’s medical record.
* **Preconditions**: Patient record form is accessible by doctors and admins.
* **Test Steps**:
  1. Log in as a doctor.
  2. Select a patient’s profile and open the medical record entry form.
  3. Attempt to save a record with incomplete or incorrect data (e.g., missing diagnosis).
  4. Correct errors and submit.
* **Expected Result**: System prompts to complete all fields with valid data; submission is only allowed with complete and valid data.
* **Postconditions**: Successfully saved record is viewable in the patient’s history.

**5. Patient and Doctor Data Retrieval Test Case**

* **Objective**: Verify that patient and doctor data is accurately retrieved based on search criteria.
* **Preconditions**: Database contains multiple patient and doctor records.
* **Test Steps**:
  1. Log in as an admin.
  2. Use the search function to retrieve a specific doctor by name and patient by ID.
* **Expected Result**: Correct records are retrieved, displaying accurate information.
* **Postconditions**: Retrieved data can be used for administrative tasks, such as report generation.

**6. Access Restrictions Test Case**

* **Objective**: Ensure unauthorized users cannot access other users’ data.
* **Preconditions**: User accounts for doctor, patient, and admin.
* **Test Steps**:
  1. Log in as a patient and attempt to access the admin or doctor dashboard.
  2. Log in as a doctor and try to access admin-only functionalities.
* **Expected Result**: Access is denied with an appropriate message.
* **Postconditions**: User is restricted to their designated dashboard.

These test cases ensure comprehensive coverage for the *E-HealthCare Management System*, focusing on user-specific functionality, data integrity, and security requirements. Let me know if you'd like more detailed or additional test cases!