

Use Case Scenarios for Hospital Appointment System

1. Core Operations Scenarios

1.1. Login

- **Actors:** Patient, Doctor, Secretary, **Manager**
- **Preconditions:** User must be registered.
- **Main Flow:**
 - User opens the login screen.
 - System requests email and password.
 - User enters credentials and clicks 'Login'.
 - System validates information.
 - User is redirected to the appropriate dashboard.
- **Alternative Flow:**
 - Wrong password: System displays an error and asks to retry.
- **Postconditions:** User successfully logs into the system.

1.2. Register (Patient)

- **Actors:** Patient
- **Preconditions:** Patient must not already be registered.
- **Main Flow:**
 - Patient opens the registration screen.
 - System requests personal information (National ID, birth date, etc.).
 - Patient fills the form and submits.
 - System validates and creates the patient account.
- **Alternative Flow:**
 - Duplicate national ID detected: System displays an error.
- **Postconditions:** Patient account is created.

1.3. Update Personal Info

- **Actors:** Patient, Doctor, Secretary, **Manager**
- **Preconditions:** User must be logged in.
- **Main Flow:**
 - User navigates to the 'Personal Information' page.
 - User modifies details such as address, phone number, or password.
 - User saves the changes.

- System validates and saves the information.
- **Alternative Flow:**
 - Invalid format: System displays an error message.
- **Postconditions:** User information is updated.

2. Patient Operations Scenarios

2.1. Book Appointment (*Diyagram ile uyumlu isim*)

- **Actors:** Patient
- **Preconditions:** Patient must be logged in.
- **Main Flow:**
 - Patient opens the appointment menu.
 - System displays clinics and doctors.
 - Patient selects a doctor and date.
 - System displays available time slots.
 - Patient chooses a time and confirms.
 - System creates the appointment with status 'Pending'.
- **Alternative Flow:**
 - No available time slots: System suggests another date.
- **Postconditions:** Appointment successfully created.

2.2. View Appointment

- **Actors:** Patient
- **Preconditions:** Patient must be logged in.
- **Main Flow:**
 - Patient navigates to the 'My Appointments' menu.
 - System lists all of the patient's appointments (past, current, and pending).
 - Patient selects an appointment to view its details.
 - System displays appointment details (clinic, doctor, date, time, status).
- **Alternative Flow:**
 - Appointment list is empty: System displays "You have no active appointments" message.
- **Postconditions:** Patient has viewed their appointments.

2.3. Cancel Appointment

- **Actors:** Patient
- **Preconditions:** Appointment exists and is cancellable.

- **Main Flow:**
 - Patient opens appointment list.
 - Patient selects an appointment to cancel.
 - Patient clicks 'Cancel'.
 - System updates status to 'Cancelled'.
- **Alternative Flow:** -
- **Postconditions:** Appointment is cancelled.

3. Secretary Operations Scenarios

3.1. Create Patient Record

- **Actors:** Secretary
- **Preconditions:** Patient is not already registered.
- **Main Flow:**
 - Secretary opens patient registration page.
 - Secretary enters patient information.
 - System validates and creates the patient record.
 - Secretary may proceed to create an appointment.
- **Alternative Flow:**
 - Patient already exists: System warns the secretary.
- **Postconditions:** Patient is added to the system.

3.2. Create Appointment

- **Actors:** Secretary
- **Preconditions:** Patient is registered.
- **Main Flow:**
 - Secretary opens the appointment creation screen.
 - Patient is selected.
 - Clinic and doctor are chosen.
 - Available time is selected.
 - System saves the appointment.
- **Alternative Flow:** -
- **Postconditions:** Appointment created.

3.3. Perform Accounting Operation (Diyagram ile uyumlu isim)

- **Actors:** Secretary
- **Preconditions:** Patient must have received examination/treatment services.
- **Main Flow:**

- Secretary navigates to the 'Billing Operations' menu.
- Secretary selects the patient and the service received.
- System calculates the service fee and any applicable discounts.
- Secretary records the payment type.
- System records the payment information and generates a receipt.
- **Alternative Flow:** -
- **Postconditions:** The payment process is complete and recorded.

4. Doctor Operations Scenarios

4.1. View Appointment List

- **Actors:** Doctor
- **Preconditions:** Doctor must be logged in.
- **Main Flow:**
 - Doctor navigates to the 'Appointment List' menu from the main panel.
 - System displays the doctor's current and past appointments.
 - Doctor can filter the appointment list by date or time.
- **Alternative Flow:** -
- **Postconditions:** Doctor has viewed the appointment list.

4.2. Perform Examination

- **Actors:** Doctor
- **Preconditions:** Doctor has appointments.
- **Main Flow:**
 - Doctor opens daily appointment list.
 - Doctor selects a patient.
 - System **includes** the **View Patient History** scenario.
 - Doctor enters examination notes.
 - Doctor may **extend** by performing the **Write Prescription** or **Request Test/Analysis** scenarios.
 - System saves the examination record.
- **Alternative Flow:** -
- **Postconditions:** Examination completed and recorded.

4.3. View Patient History

- **Actors:** Doctor
- **Preconditions (GÜNCELLENDİ):** Doctor must be logged in.
- **Main Flow (GÜNCELLENDİ):**

- Doctor selects a patient from their clinic's records.
- System displays the selected patient's previous diagnosis, prescriptions, tests, and examination notes.
- Doctor reviews the history.
- **Alternative Flow:**
 - No past records: System displays "No Patient History Found" message.
- **Postconditions:** Doctor has viewed the patient's history.

4.4. Write Prescription

- **Actors:** Doctor
- **Preconditions:** Examination is in progress.
- **Main Flow:**
 - Doctor opens prescription creation screen.
 - Doctor enters medicines and usage instructions.
 - System stores the prescription.
- **Alternative Flow:** -
- **Postconditions:** Prescription added to patient history.

4.5. Request Test/Analysis (Diyagram ile uyumlu isim)

- **Actors:** Doctor
- **Preconditions:** Examination is in progress.
- **Main Flow:**
 - Doctor selects 'Request Lab Test'.
 - Doctor enters test type and notes.
 - System records the test request.
- **Alternative Flow:** -
- **Postconditions:** Lab test request saved.

5. Manager Operations Scenarios (Diyagram ile uyumlu isim)

5.1. Manage Users

- **Actors:** Manager
- **Preconditions:** Manager must be logged in.
- **Main Flow:**
 - Manager views user list.
 - Manager adds, edits, or deletes users.
 - System saves the changes.

- **Alternative Flow:** -
- **Postconditions:** User accounts updated.

5.2. View Reports

- **Actors:** Manager
- **Preconditions:** Manager must be logged in.
- **Main Flow:**
 - Manager navigates to the 'Reports' menu from the main panel.
 - System displays report types (e.g., appointment density, revenue, doctor performance).
 - Manager selects filters like report type and date range.
 - System generates and displays the report based on the filtered data.
- **Alternative Flow:** -
- **Postconditions:** Manager has viewed the necessary reports.

5.3. Define Doctor/Clinic

- **Actors:** Manager
- **Preconditions:** Manager must be logged in.
- **Main Flow:**
 - Manager navigates to the 'Clinic and Doctor Management' page.
 - Manager chooses to create a new doctor or clinic record.
 - Manager enters the necessary information (specialty, working hours, etc.) and saves it.
 - System adds the new record to the system.
- **Alternative Flow:** -
- **Postconditions:** A new doctor/clinic has been defined in the system.

5.4. Edit System Settings (Diyagram ile uyumlu isim)

- **Actors:** Manager
- **Preconditions:** Manager must be logged in.
- **Main Flow:**
 - Manager navigates to the 'System Settings' page.
 - Manager modifies general settings (e.g., appointment duration, notification preferences).
 - Manager saves the changes.
 - System applies the updated settings.
- **Alternative Flow:** -
- **Postconditions:** System settings have been updated.