

Software Design & Architecture

Assignment 01

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In this assignment, I will approach requirement elicitation and analysis using the agile methodology, focusing on user-centric design. We will develop a Use Case Diagram to detail user-system interactions and a Sequence Diagram to show operational flows. Requirements will be expressed as concise user stories, aligning with agile principles.

User Stories

As I only have the document provided in the assignment, our requirement elicitation will focus on identifying stakeholders from the document, such as patients and healthcare staff. We'll conduct a detailed analysis of this documentation to extract system requirements, translating them into user stories.

1. Patient Registration and Login

- As a new patient, I want to register to access medical records and services.
- As a returning patient, I want to log in to manage my health-related activities.

2. Appointment Management

- As a patient, I want to book and manage appointments for efficient healthcare access.
- As a receptionist, I need to manage appointments to support patient needs.

3. Medical Consultation

- As a nurse, I aim to conduct pre-assessments to inform doctors' diagnoses.
- As a doctor, I require access to patient histories and tools to provide care.

4. Laboratory and Test Management

- As a lab assistant, I need to process tests and report results for accurate diagnoses.
- As a doctor, I want to request and review tests to guide patient treatment.

5. Pharmacy Interaction

- As a pharmacist, I must prepare and detail medications for patient safety.
- As a patient, I want to access prescription details to manage my medication.

6. Billing and Payment

- As a cashier, I need to handle billing and payments to ensure financial operations.
- As a patient, I want to view and settle bills to complete my healthcare experience.

Use Case Diagram

I made a Use Case Diagram to give us a clearer picture of how users interact with the system. It's a handy diagram that helps us ensure we're all on the same page about what the system needs to do, making our agile journey smoother and more focused on delivering value to users.



Figure 1: Hospital Management System Use Case Diagram

Sequence Diagram

I opted for a Sequence Diagram over Activity Diagram because it lets us zoom in on how different parts of the system and people interact over time.

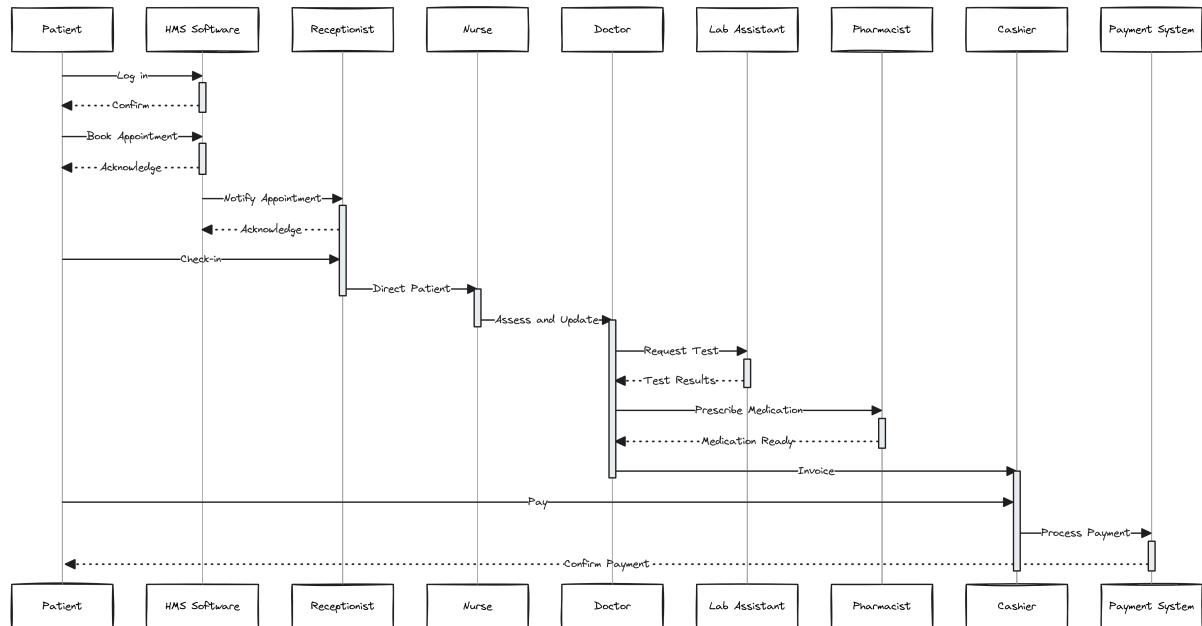


Figure 2: Hospital Management System Sequence Diagram