

software engineering assignment 1

Case Study: Hospital Appointment Management System

A private hospital wants to digitalize its appointment scheduling process. Currently, appointments are recorded manually in notebooks, leading to issues like double bookings, missing records, and long waiting times for patients.

To solve this, the hospital hires a software engineering team to develop a Hospital Appointment Management System. The system should allow:

Functional Needs

Patients to register, log in, and book appointments with doctors.

Doctors to view their schedules and update availability.

Receptionists to manage bookings and cancellations.

Non-Functional Needs

The system must be secure to protect patient data.

The interface should be simple and accessible.

It must handle many users during peak hours without crashing.

Development Approach

The team decides to use the Agile methodology because the hospital management may change requirements after seeing early versions of the system. The team works in short sprints, delivering small features for review and feedback.

Challenges

Integrating doctors' real-time availability.

Ensuring the system handles heavy booking traffic.

Maintaining privacy and security of health records.

Questions

1. What is the main purpose of the Hospital Appointment Management System?
2. List two functional and two non-functional requirements from the case study.
3. Why did the team choose the Agile methodology?
4. Who are the primary users of the system?
5. Explain how Agile helps in managing changing requirements for this project.
6. Identify three challenges in building this system and suggest possible solutions.