

# **Software Construction & Development Proposal (Revised)**



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## Introduction

The **EHospital System** is a web-based application designed to digitize core operations of a hospital. It replaces paper-based records with a centralized, secure database to manage patients, appointments and clinical data. The system main aims or goals to improve efficiency, reduce errors, and provide a better experience for staff and patients by making smooth workflows like patient registration, doctor appointments, and billing.

## Stakeholders

This system will serve the following stakeholders:

**Receptionist:** They will be responsible for managing patient check-ins, scheduling appointments, updating consultation statuses, and coordinating communication between patients and medical staff.

**Doctors:** They will be in charge of maintaining the appointments and accessing patient clinical information.

**Patients:** They will have a smooth registration and appointment booking system.

**Hospital Administration:** They will use it to oversee the entire hospital, managing user accounts (Patients and Staff) and generating reports.

## Functional Requirements

This project shall have the following functional requirements:

## **Receptionist Module**

**FR1.1:** The receptionist shall be able to securely login and logout of the portal.

**FR1.2:** The receptionist shall create a new patient record with a unique, auto-incrementing Patient ID.

**FR1.3:** The receptionist shall store the following patient information in their profile:

- i) **Core Identifiers:** Patient ID, Registration Date.
- ii) **Personal Details:** Full Name, Date of Birth, Gender.
- iii) **Contact Information:** Address, Primary Phone Number, Email Address (Optional).
- iv) **Medical Overview:** Known Allergies (Optional), Blood Group (Optional).
- v) **Status:** Patient Type (Inpatient/Outpatient).

**FR1.4:** Receptionist shall be able to search for patients by their Name, Patient ID, or Phone Number.

**FR1.5:** Receptionist shall be able to view the schedule of doctors and staff.

## **Doctor Module**

**FR2.1:** A doctor shall be able to securely login and logout of the portal.

**FR2.2:** A doctor shall be able to view a list of all patients who have appointments with them.

**FR2.3:** A doctor shall be able to add clinical notes, diagnoses, and prescriptions to the record of a patient they have seen.

**FR2.4:** A doctor shall be able to view a patient's full medical history, including past visits, notes, and prescriptions.

## **Patient Module**

**FR3.1:** A patient shall be able to securely login and logout of the portal.

**FR3.2:** A patient shall be able to view available time slots for a selected doctor.

**FR3.3:** A patient shall be able to book an appointment.

**FR3.4:** A patient shall be able to delete an appointment.

**FR3.5:** A patient shall be able to view his appointment history.

## **Hospital Administration Module**

**FR4.1:** Admin shall be able to securely login and logout of the portal.

**FR4.2:** Admin should be able to manage doctors/patient profiles.

**FR4.3:** Admin should be able to create monthly reports showing visits, appointments, and doctor activity.

**FR4.4:** Admin should be able to set up hospital departments and assign doctors to them.

**FR4.5:** Admin should be able to send announcements or alerts to all users.

**FR4.6:** Admin should be able to approve or reject new patient sign-ups.

**FR4.7:** Admin should be able to control what each user role is allowed to do in the system.

**FR4.8:** Admin should be able to back up hospital data manually or set automatic backups.

**FR4.9:** Admin should be able to get alerts if something goes wrong in the system.

**FR4.10:** Admin should be able to manage billing settings like fees and payment options.

**FR4.11:** Admin should be able to view and respond to patient feedback.

**FR4.12:** Admin should be able to deactivate or suspend user accounts when needed.

**FR4.13:** Admin should be able to keep a record of system updates and changes.

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