**Business Plan & Requirement Analysis for Hospital Management System (HMS)**

The **Hospital Management System (HMS)** is designed for a **private hospital** to manage its operations efficiently. The healthcare management system aims to streamline **patient appointments, billing, insurance handling,** and **medicine distribution** while efficiently managing **doctors** and their associated **departments**.

**Requirement Analysis**

The HMS is organized into different departments, each identified by a unique **alphanumeric department ID** and a **name**. Every department must have at least one **doctor** assigned to it. Each doctor is identified by a unique **alphanumeric Doctor ID** and has associated details such as **first name, last name, role, contact number, email address and available working days**. The system is responsible for handling **patient appointments** with the **doctors** they want. A patient can schedule one or more appointments with one or many doctors, and each appointment is uniquely identified by an **alphanumeric appointment ID**. The system registers the **appointment date, time, and status (walk-in, scheduled, completed or cancelled)**. The **diagnoses** and **prescriptions** are recorded for each patient against their appointment once it is completed. Every patient is identified using a **unique patient ID** and has associated personal details such as **first name, last name, date of birth, gender, contact information, address, email and emergency contact details (optional)**.

Patients may have **insurance**, but it is not mandatory. If a patient has insurance, it is linked through a **policy number** and includes details such as **coverage amount and expiry date**. Each insurance provider is identified by a unique **insurance ID**.

The **billing system** ensures accurate invoices for medical services. Each billing record is identified by an **alphanumeric** **bill ID** and includes **the total amount and payment status (pending or paid)**. Medicines prescribed during the appointment are also included in billing, with each medicine being identified by a **medicine ID** and have attributes like **medicine name,** **stock quantity, supplier name, expiry date, quantity dispensed and unit price**.

The organization wants the data to be soft deleted if needed and cannot be permanently deleted.