

# **INTRODUCTION TO HOSPITAL MANAGEMENT SYSTEM'S DATA FLOW DIAGRAM**

A Data Flow Diagram (DFD) Level 0 for a Hospital Management System provides a high-level overview of the system's essential components and their interconnections. This top-level diagram captures the main functions and entities within the hospital, facilitating the flow of information among the different stakeholders involved. Below is an introduction to each key component included in the system:

## **1. Hospital Admin**

**Role:** The Hospital Admin oversees the hospital's overall operations, ensuring all departments and resources work in harmony. This component is crucial for managing administrative tasks, policy enforcement, and general workflow coordination.

**Function:** The admin approves patient admissions, assigns staff, monitors financial transactions, and handles communications with other entities like suppliers.

## **2. Doctors**

**Role:** Doctors are the primary medical professionals responsible for diagnosing, treating, and managing patient health. They play a vital role in delivering healthcare services.

**Function:** Doctors receive patient information, examine and diagnose health issues, prescribe treatments, and consult with patients. Their interactions with patients and hospital resources are tracked within the system for accurate medical records.

## **3. Patients**

**Role:** Patients are individuals who seek medical treatment and services within the hospital. They interact with doctors, hospital admin, and other departments as they receive healthcare.

**Function:** Patients provide personal health information, undergo treatments, make payments, and receive prescribed medications or further medical instructions. The system tracks their health records and any related hospital interactions.

## **4. Payment Gateway**

**Role:** The Payment Gateway handles all financial transactions, ensuring secure payment processing for services rendered within the hospital.

**Function:** This component manages patient billing and payments for services and medications. It securely processes transactions, generates receipts, and maintains transaction records, contributing to the hospital's financial management.

## **5. Inventory**

**Role:** The Inventory system manages the stock of medical supplies, equipment, and pharmaceuticals essential for patient care.

**Function:** Inventory tracks stock levels, alerts the hospital when items are low, and assists in ordering supplies. It ensures that resources are available for treatments, thereby supporting doctors and patient services.

## **6. Suppliers**

**Role:** Suppliers are external entities responsible for providing the hospital with medical equipment, drugs, and other essential items.

**Function:** Suppliers interact with the hospital's inventory system, fulfilling orders for supplies and ensuring timely delivery. They support the hospital's inventory management by ensuring that necessary items are always available.

Each of these entities plays a significant role in the hospital management system, contributing to a comprehensive, streamlined process for patient care, operational management, and resource allocation. The Level 0 DFD illustrates the flow of information between these

entities, showing how data like patient information, medical records, payments, and inventory orders are processed and managed within the system.