**INTRODUCTION TO DFD LEVEL 1 FOR HOSPITAL MANAGEMENT SYSTEM**

**Level 1 Data Flow Diagram (DFD)** for a **Hospital Management System** breaks down the system into specific processes and data stores, showing how each main component (such as patients, doctors, and admin) interacts with these processes and data stores.

**Entities and Attributes:**

1. **Patient**
   * **Attributes**: Patient ID, Name, Age, Gender, Contact Information, Medical History
   * **Function**: The patient interacts with various processes such as specifying symptoms, viewing disease information, and receiving prescriptions and bills.
2. **Doctor**
   * **Attributes**: Doctor ID, Name, Specialization, Contact Information, Assigned Patients
   * **Function**: The doctor is responsible for diagnosing patients based on symptoms, prescribing medication, and updating patient records.
3. **Admin**
   * **Attributes**: Admin ID, Name, Contact Information, Role/Permissions
   * **Function**: The admin maintains the overall hospital system, oversees bill processing, and ensures system operations are smooth and secure.

**Processes:**

**Specify Symptoms (Process 1.0):**

This process allows patients to specify their symptoms. These symptoms are then used to identify potential diseases or health issues.

Data flows:

Input: Symptoms from the patient.

Output: Symptom data for further analysis.

**Search Disease Availability (Process 2.0):**

Based on the specified symptoms, this process checks for matching diseases in the system.

Data flows:

Input: Symptoms from Process 1.0.

Output: Disease data or notification if no disease is found.

**Manage Prescription and Tests (Process 3.0):**

Once a disease is identified, this process manages the prescriptions and required tests.

Data flows:

Input: Disease data from Process 2.0.

Output: Prescriptions, test reports, and other relevant medical records.

**Bill Processing (Process 4.0):**

Handles the financial aspects, generating invoices for treatments, tests, and prescriptions.

Data flows:

Input: Prescription and test details.

Output: Bills and invoices sent to patients and financial reports for hospital management.

**Maintain System (Process 5.0):**

Responsible for system upkeep, including the database of medicines, hospital resources, and updates from administrators.

Data flows:

Input: Updates from administrators.

Output: Updated system data and resource information.

**Data Stores**

1. **Bill**
   * **Description**: Stores billing records for each patient, including charges for consultations, treatments, and medications.
   * **Interacting Processes**: Bill Processing.
2. **Disease**
   * **Description**: Contains information on diseases, including symptoms, possible causes, and recommended treatments.
   * **Interacting Processes**: Specify Symptoms, View Disease.
3. **Reports**
   * **Description**: Stores medical reports related to patient diagnoses, treatments, and outcomes.
   * **Interacting Processes**: Manage Prescription or Test System.
4. **Medicines**
   * **Description**: Holds records of prescribed medications, including inventory levels and detailed descriptions.
   * **Interacting Processes**: Maintain System.