

PROJECT PROPOSAL
ON

HOSPITAL MANAGEMENT

Guided By:-

Anuj Kumar

Created By:-

Nidhi (AF04991222)
Nitish(AF04991177)
Mahak(AF04991716)

Batch code ANP-D2405

Title of the Project

Hospital Management System using Java, JDBC, and MySQL.

Introduction

The Hospital Management System is designed to manage patient records, doctor details, staff information, appointments, and billing. It helps in maintaining structured healthcare data and improves the efficiency of hospital operations.



3. Objective

To digitize patient data management.

- To schedule appointments efficiently.
- To manage billing records.
- To store and retrieve doctor and staff details securely.

4. Project Category

Database Management System (DBMS) / Java

Application.

5. Analysis

Modules and Description

Patient Module : Stores patient details such as Name, DOB, Gender, Phone Number, Patient ID, and Disease.

Doctor Module Manages doctor details including Name, Specialization, Phone Number, and Doctor ID

Staff Module: Contains Staff details like Name, Role, Phone Number, and Staff ID.

Appointment Module: Handles scheduled appointments using Patient ID, Doctor ID, Date, and Time.

Billing Module Stores billing details including Patient ID, Appointment ID, Amount, and Billing Date

Admin Table: The Admin table stores login credentials and role details of system administrators to manage hospital operations. It ensures secure access control and allows authorized users to maintain system data efficiently.

Lab Report Table: The Lab Report table maintains patient test details, results, and diagnostic observations recorded by laboratory staff.

Database Design - Tables

Admin Table

Column	Datatype	Description
admin_id	INT	Admin's unique identifier
admin_name	VARCHAR(100)	Admin's name
admin_email	VARCHAR(255)	Admin's email address
admin_password	VARCHAR(255)	Admin's password

Patient Table

Column	Data Type	Description
patient_id	INT (PK)	Unique ID
name	VARCHAR(100)	Patient full name
dob	DATE	Date of birth
gender	VARCHAR(10)	Gender
phone	VARCHAR(15)	Contact Number
disease	VARCHAR(200)	Disease details

Appointment table

Column	Data Type	Description
appointment_id	INT (PK)	Unique ID
patient_id	INT (FK)	Linked patient
doctor_id	INT (FK)	Linked doctor
date	DATE	Appointment date
time	TIME	Appointment time

• Doctor Table

Column	Data Type	Description
doctor_id	INT (PK)	Unique ID
name	VARCHAR(100)	Doctor name
specialization	VARCHAR(100)	Specialty field
phone	VARCHAR(15)	Contact number

• Billing Table

Column	Data Type	Description
bill_id	INT (PK)	Unique ID
patient_id	INT (FK)	Billing patient
appointment_id	INT (FK)	Associated appointment
amount	DECIMAL(10,2)	Total bill amount
date	DATE	Billing date

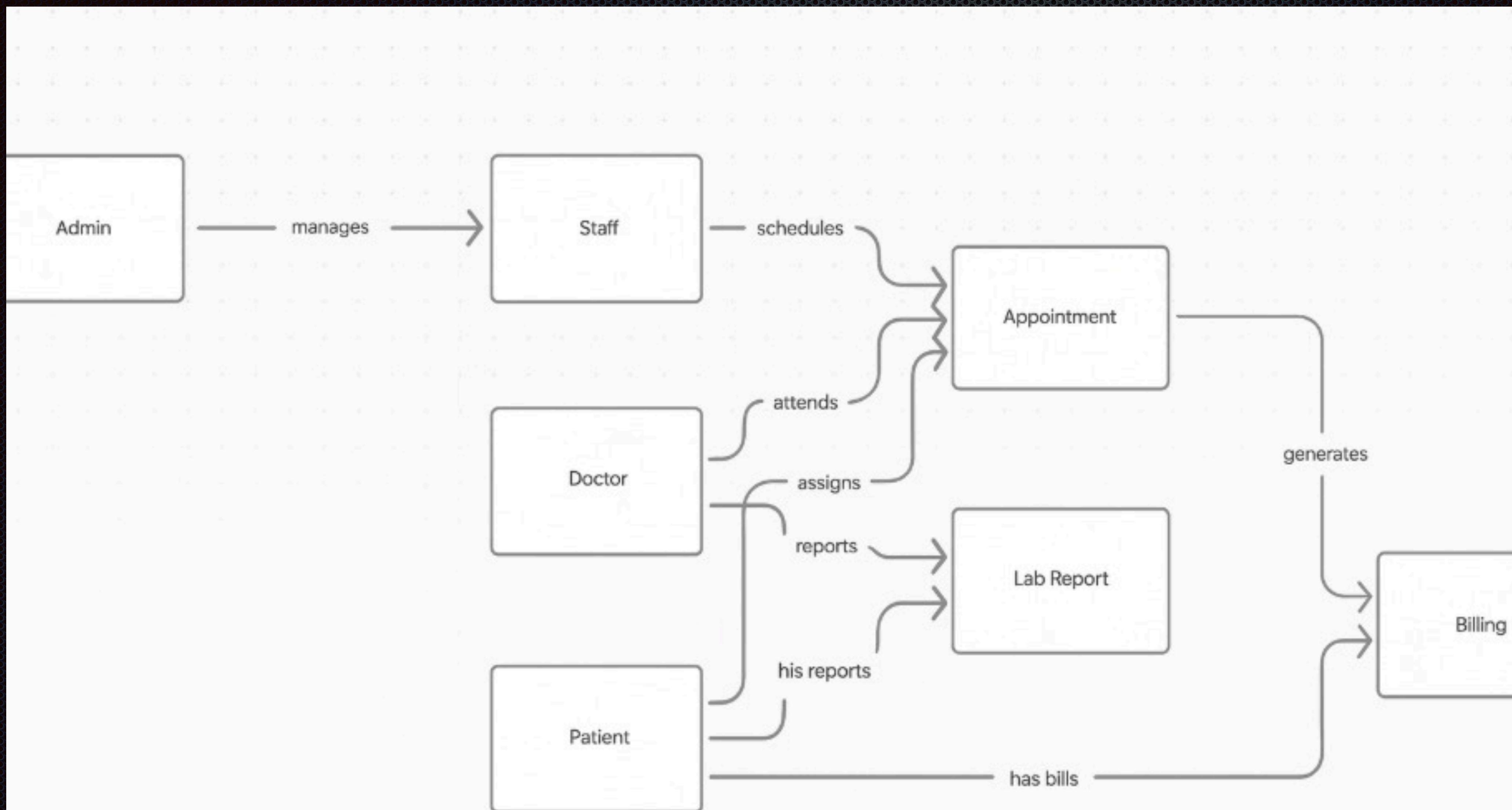
• Staff Table

Column	Data Type	Description
staff_id	INT (PK)	Unique ID
name	VARCHAR(100)	Staff Name
role	VARCHAR(50)	Designation
phone	VARCHAR(15)	Contact number

Lab Report

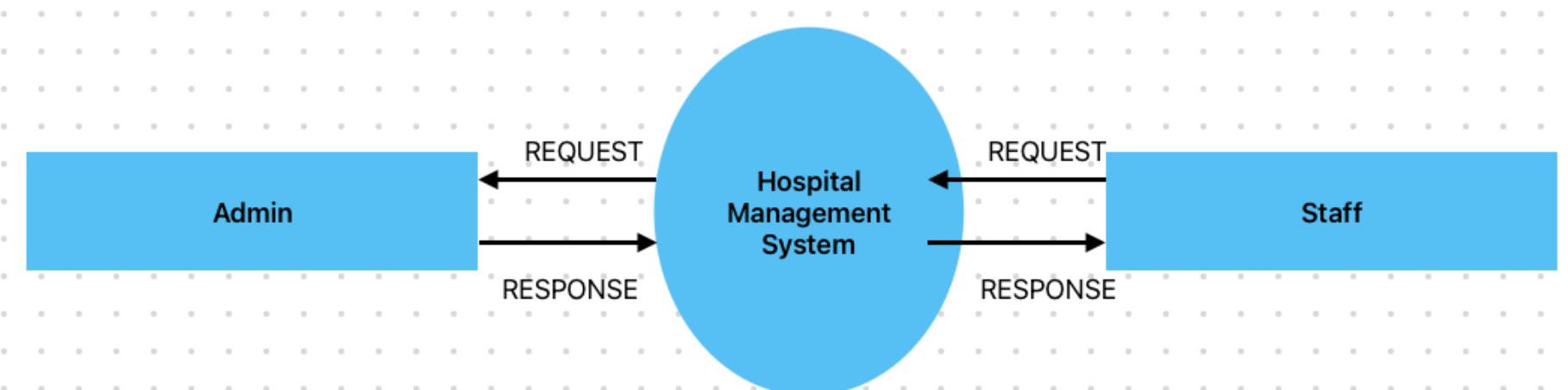
Column	Datatype	Description
report_id	INT	Lab report unique identifier
patient_id	VARCHAR(100)	Patient associated with the report
test_name	VARCHAR(100)	Name of the test conducted
test_result	VARCHAR(255)	Result of the test

ER Diagram

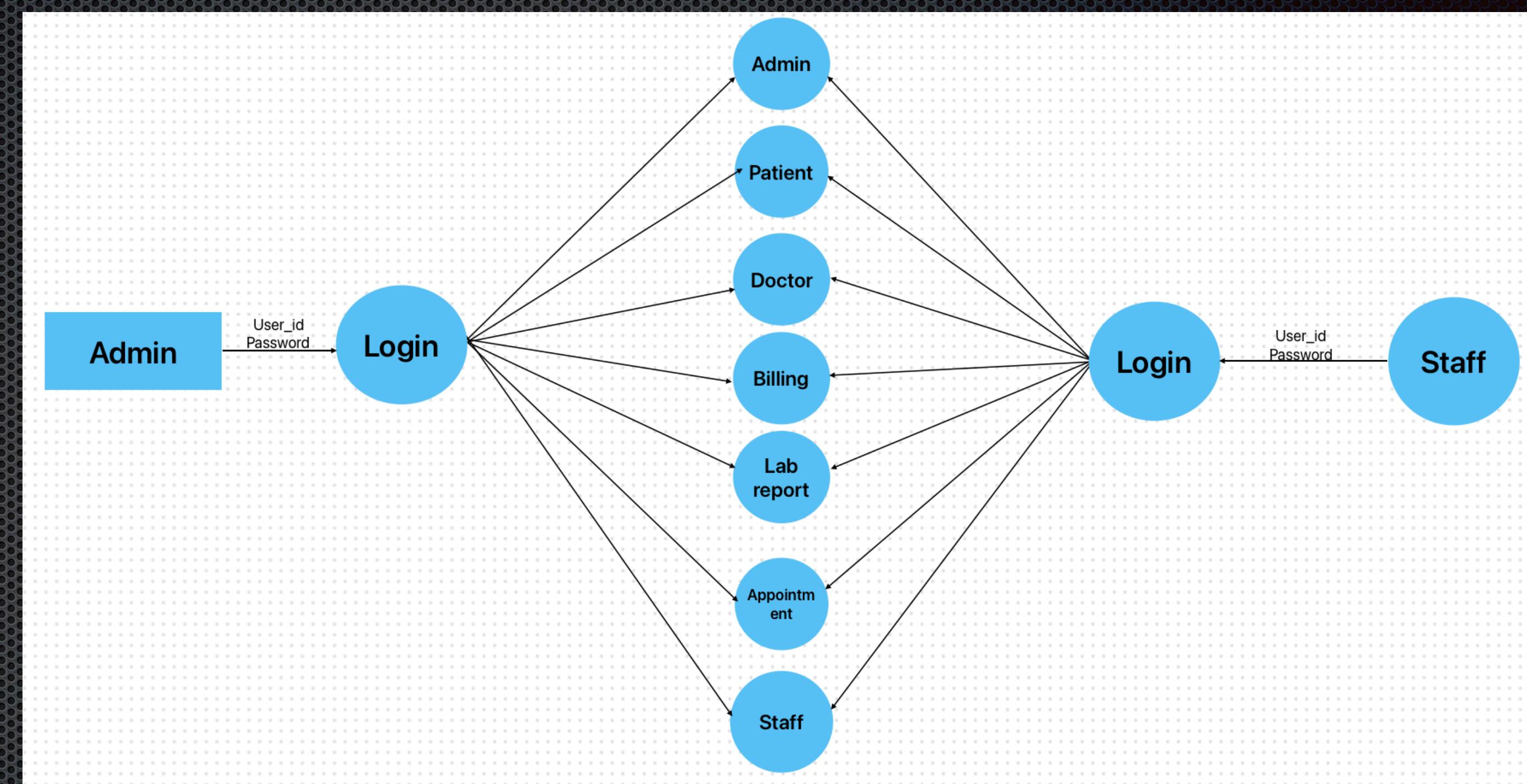


Data Flow Diagram

LEVEL 0 DFD



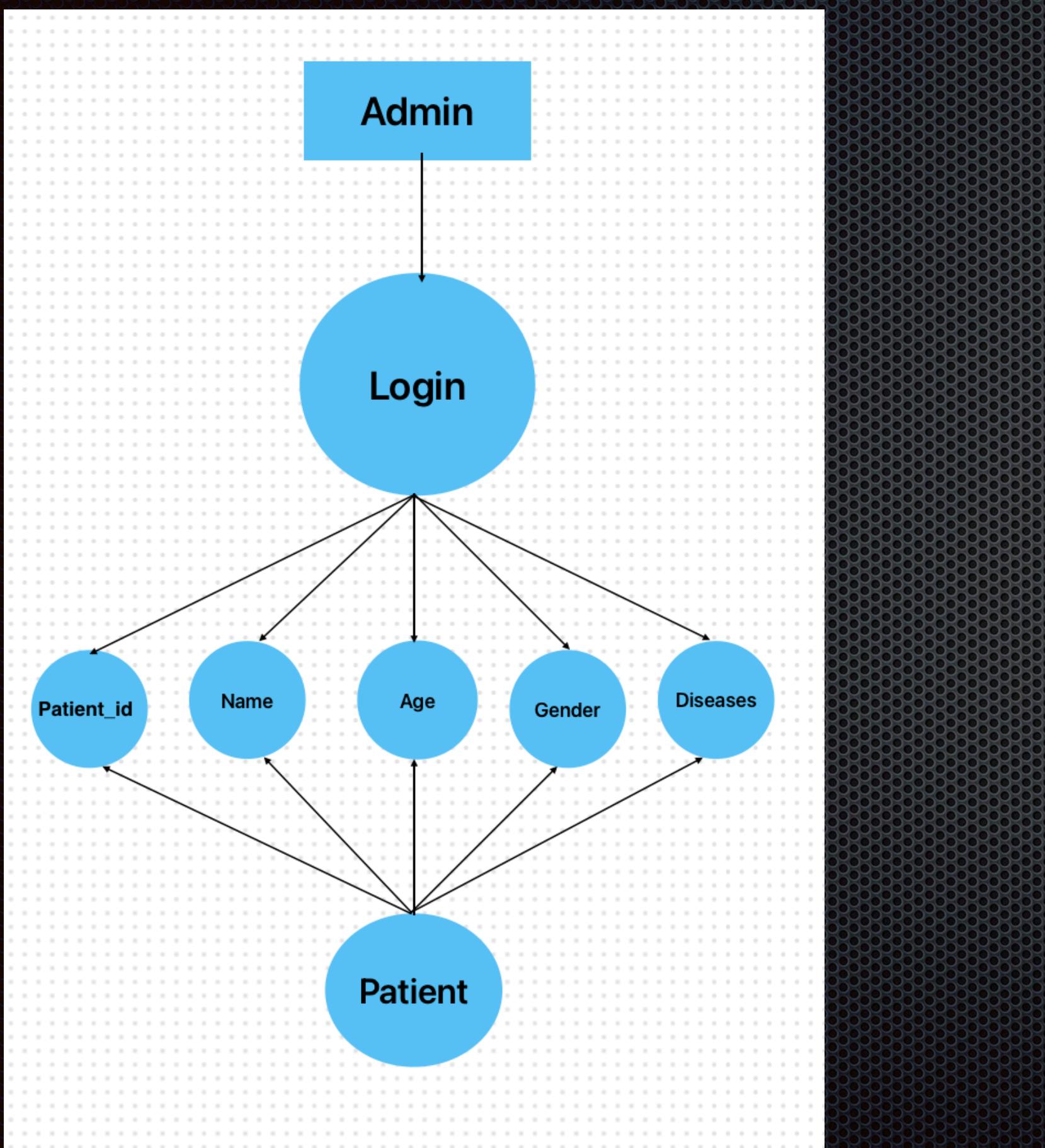
LEVEL 1 DFD



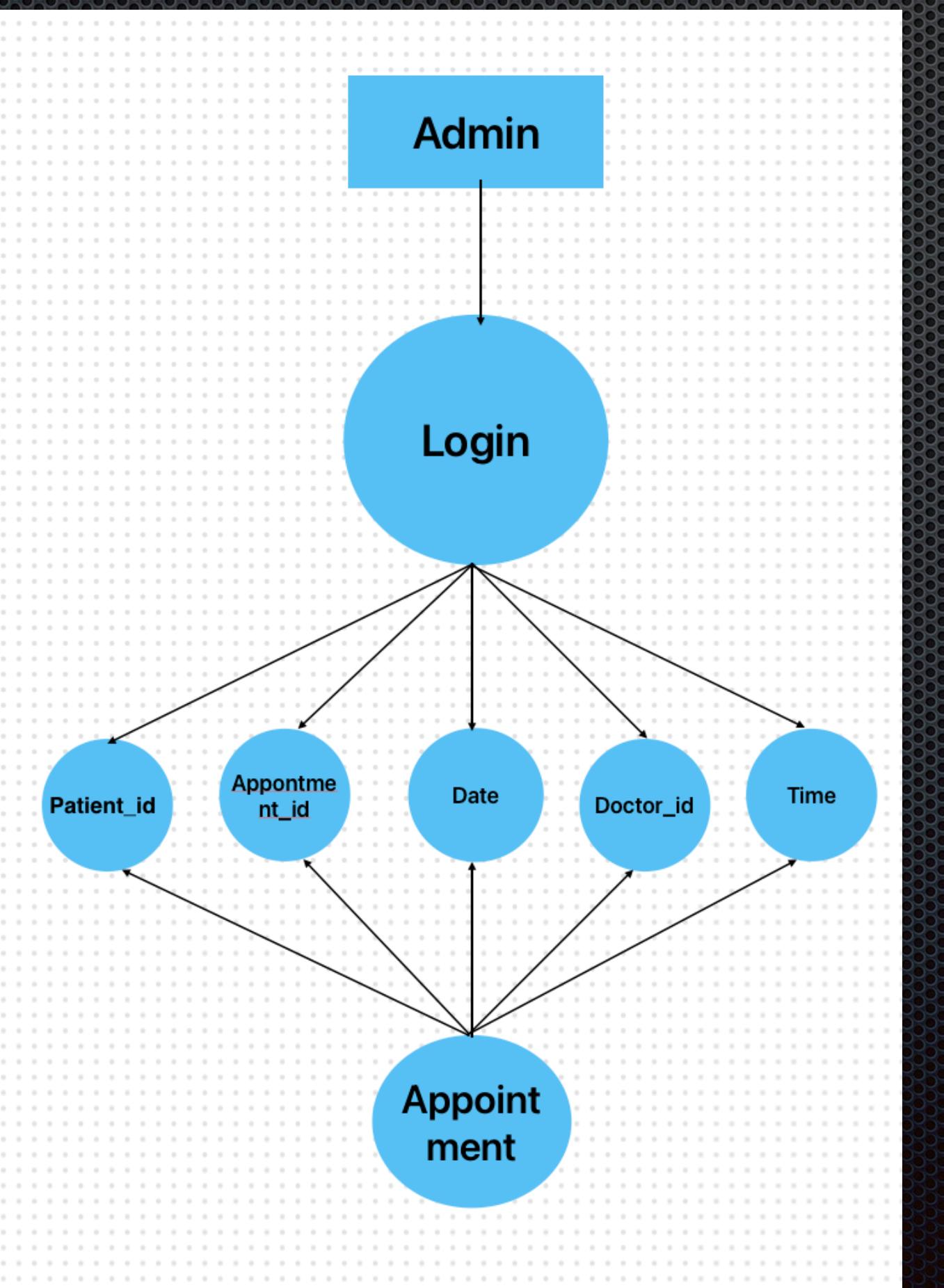
Data Flow Diagram

LEVEL2 DFD

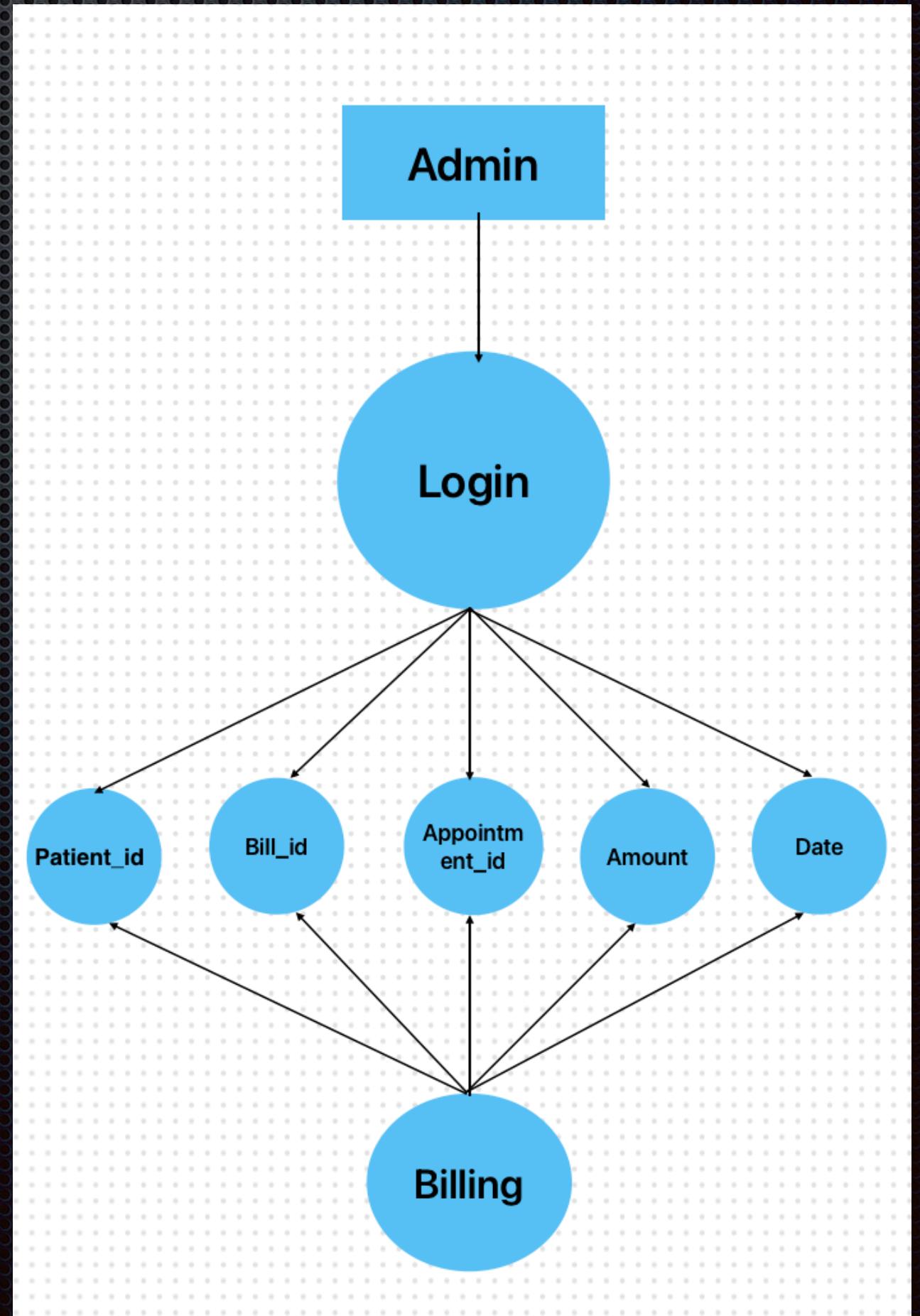
Patient



Appointment



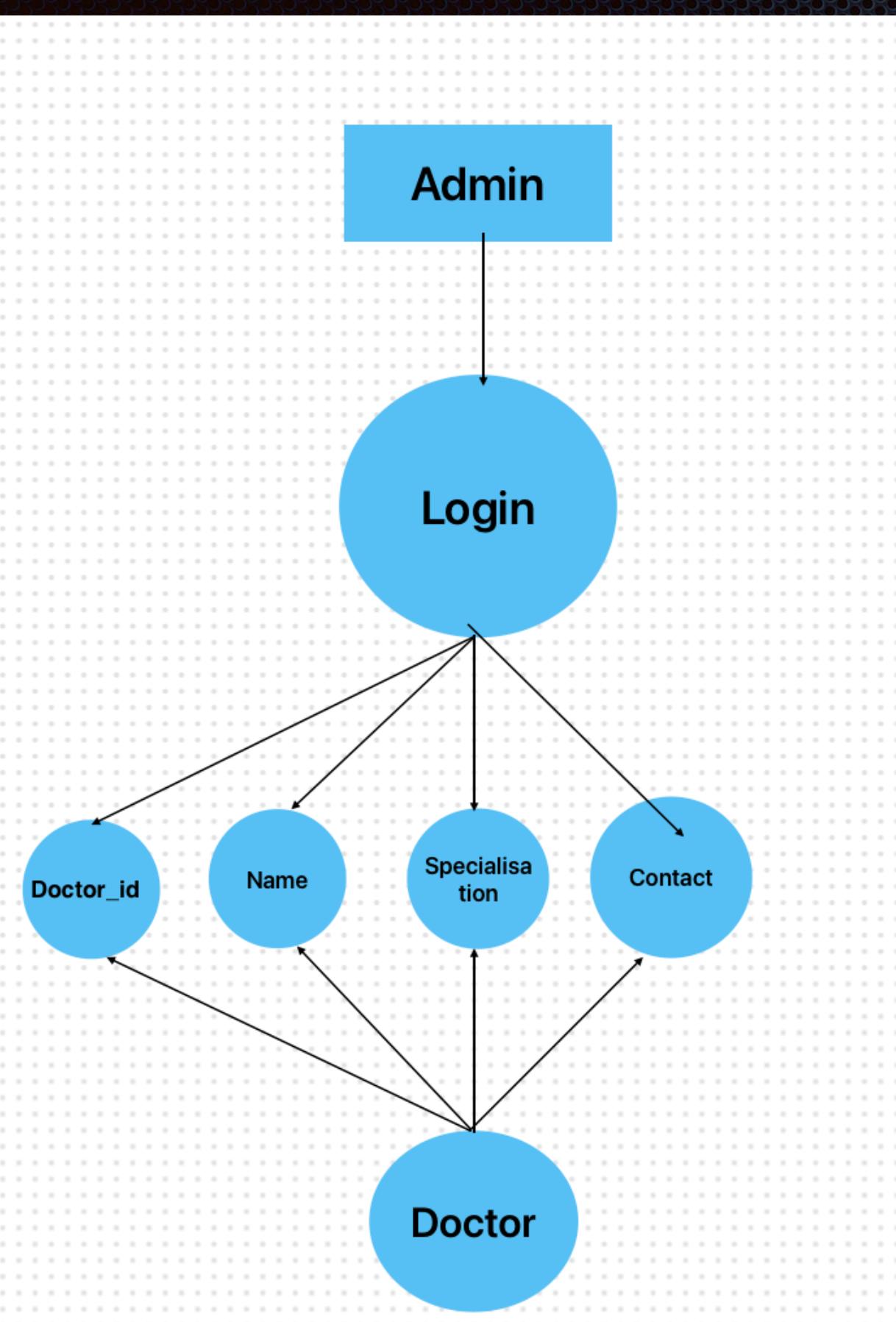
Billing



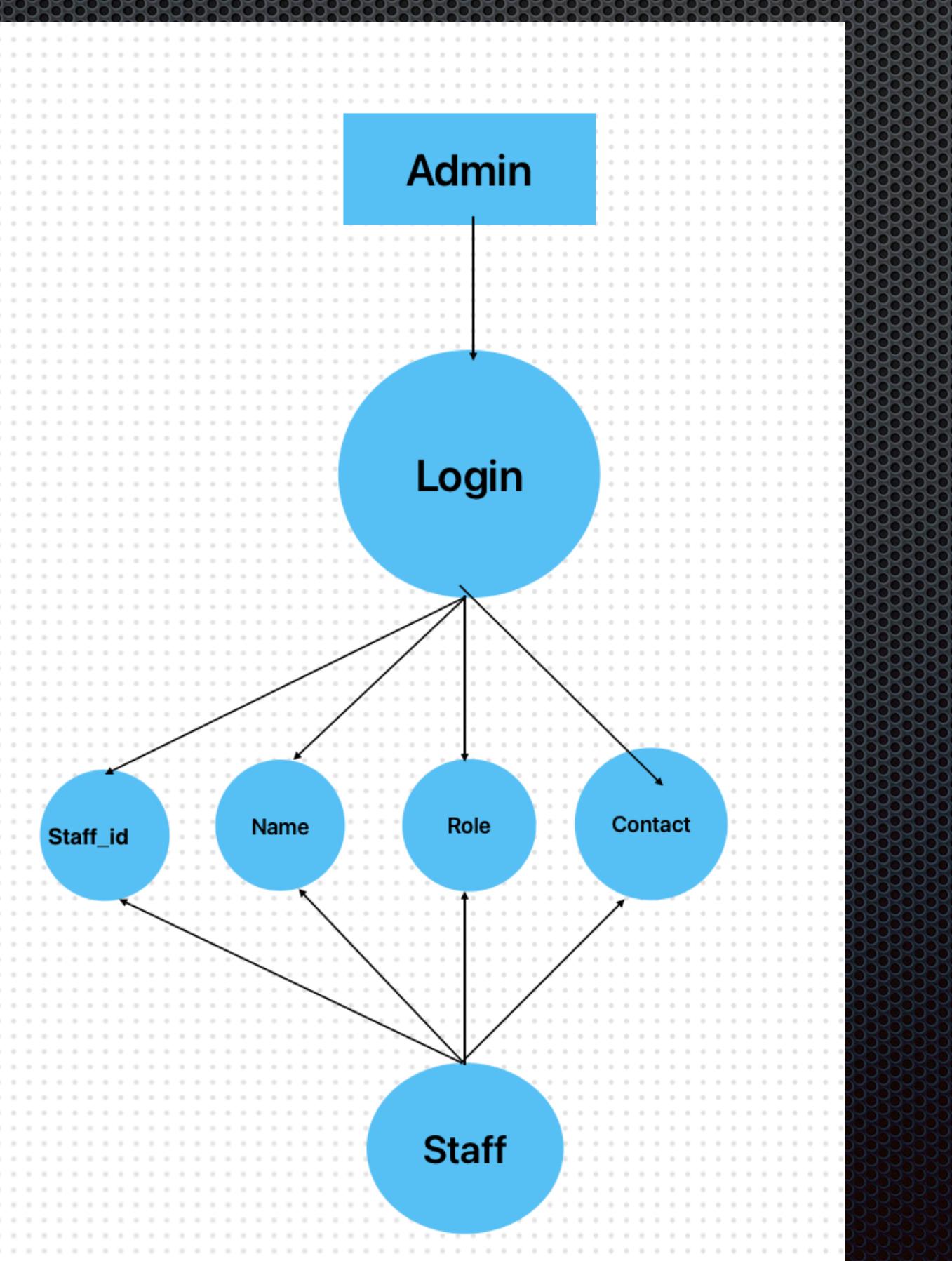
Data Flow Diagram

LEVEL 2 DFD

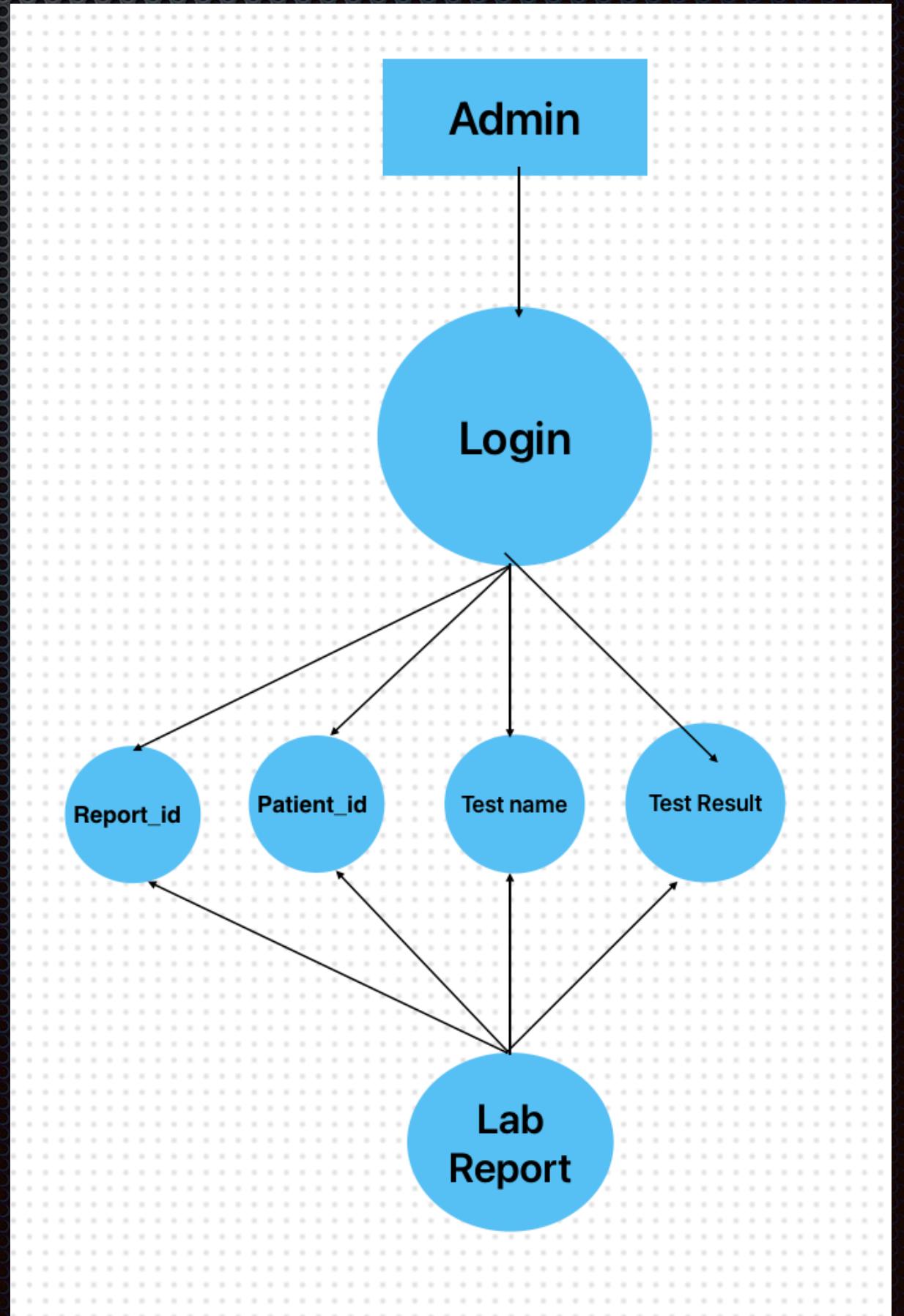
Doctor



Staff



Lab Report



7. Platform Used

Hardware Requirements:

- PC with minimum 4GB RAM
- 500MB storage

Software Requirements:

- Java JDK
- Eclipse IDE
- MySQL Server
- JDBC Driver

8. Future Scope

- Can be upgraded to include pharmacy management.
- Can integrate cloud-based storage.
- Can implement patient monitoring dashboard.

9. Bibliography

- Java Complete Reference
- MySQL Documentation
- JDBC Official Guide