

# Hospital Management System - SQL Project

## Introduction

This project presents a Hospital Management System using SQL to manage patient records, doctor consultations, visit details, and billing information. It demonstrates the use of relational database concepts, procedures, and automation using triggers.

## Abstract

The Hospital Management Database Project is designed to efficiently handle key hospital operations including patient data management, appointments, and billing. Using SQL, this system implements relational tables, joins, triggers, and stored procedures to enable real-time hospital activity tracking and reporting.

## Tools Used

1. MySQL / MySQL Workbench
2. SQL (Structured Query Language)
3. FPDF (for PDF report generation)
4. Any SQL GUI or CLI (optional for execution)

## Steps Involved in Building the Project

1. Designed a normalized schema with tables for Patients, Doctors, Visits, and Bills.
2. Inserted sample data to simulate real hospital activity.
3. Wrote SQL queries to view appointments and payment status.
4. Created stored procedures to automate billing generation.
5. Implemented triggers to update patient status on discharge.
6. Generated billing and visit summary reports for patient-level insights.

## Conclusion

This project illustrates the application of SQL for building a functional hospital database system. It provides hands-on experience with schema design, data manipulation, and automation using stored procedures and triggers, making it a practical solution for small- to mid-sized healthcare setups.