

Hospital Management System — Project Report

1. Overview

The Hospital Management System is a web-based application developed using PHP and MySQL. It streamlines hospital operations such as patient appointments, doctor approvals, prescription and treatment management, billing, and online payments. The system is designed to be user-friendly and efficient, helping hospital staff and patients manage processes smoothly.

2. Key Features

- **Patient Appointment Booking:** Patients can schedule appointments with doctors.
 - **Doctor Approval:** Doctors can review and approve or reject appointment requests.
 - **Prescription and Treatment Management:** Doctors can create and update prescriptions and treatments for patients.
 - **Patient Portal:** Patients can log in to view their prescriptions, treatments, and bills.
 - **Admin Controls:** Admin users can manage doctors, patients, and treatments (add, view, delete).
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3. Technologies Used

- **Frontend:** HTML5, CSS3, JavaScript, Bootstrap
 - **Backend:** PHP
 - **Database:** MySQL
 - **Server Environment:** XAMPP (Apache + MySQL)
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4. Setup and Installation

1. Install XAMPP to run Apache and MySQL locally.
2. Download or clone the project files.
3. Place the files inside the htdocs folder of XAMPP.

4. Start Apache and MySQL servers using the XAMPP control panel.
 5. Open <http://localhost/phpmyadmin> in your browser.
 6. Create a database named hospital.
 7. Import the provided SQL file (ohmsphp.sql) to set up all required tables and relationships.
 8. Run the project by visiting <http://localhost/Hospital%20Management> in your browser.
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5. SQL Queries Summary

1. **Patient Visit Trends (by year, gender, age group, and department):**
Analyze visits over the last 3 years grouped by demographics and department activity.
 2. **Medications Used from a Specific Supplier:**
Identify which medications were provided by a specific supplier within a given date range.
 3. **Top 2 Revenue-Generating Departments:**
Identify which departments generated the highest revenue from treatments and services over the past year.
 4. **Top 2 Doctors by Patient Volume:**
Find doctors with the highest number of unique patients treated in the last 5 years.
 5. **Peak Surgery Months:**
Determine in which calendar months surgeries were most frequently performed.
 6. **Longest-Held Inventory by Supplier:**
Evaluate which suppliers' items stayed in inventory the longest based on expiration dates.
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6. Benefits

- Simplifies hospital workflows by centralizing administrative and clinical operations.
- Enhances communication between patients and healthcare providers.
- Improves accessibility with patient login and real-time treatment updates.
- Supports data-driven decisions through tracking, historical records, and analytics.

- Enables efficient and secure billing and insurance handling.
 - Reduces paperwork and manual data errors.
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7. Future Enhancements

- Add SMS and email notifications for appointment reminders and updates.
- Include a visual dashboard for real-time data analytics and KPIs.
- Build a mobile application for Android/iOS users (patients and doctors).
- Integrate AI-based health monitoring and prescription suggestions based on past records.
- Enable telemedicine support (video consultations).