

North East University Bangladesh



Department of CSE

Project Proposal of Software Engineering (CSE - 334)

Submitted By :

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Submitted To :

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Project Name : Hospital Management System (HMS)

Project Details :

The Hospital Management System (HMS) is a comprehensive web-based solution designed to automate and streamline hospital operations. Built using PHP, MySQL, HTML, JavaScript, and jQuery, this system enhances efficiency in patient management, appointment scheduling, and medical record-keeping while ensuring data security and user-friendly access for administrators, doctors, and patients.

Key Features :

1. Admin Module

- Dashboard : Real-time overview of patients, doctors, appointments, and queries.
- Doctor Management : Add/update doctor profiles, specializations, and schedules.
- Patient Records : Comprehensive patient database with medical history.
- Reporting Tools : Generate analytical reports for decision-making.
- System Monitoring : Track user activities and session logs.

2. Doctor Module

- Appointment Dashboard : View and manage daily consultations.
- Patient Profiles : Access complete medical histories.
- Prescription Management : Digital record of treatments and medications.
- Search Functionality : Quick patient lookup by name or contact.

3. Patient Module

- Online Booking : Self-service appointment scheduling.
- Medical Portal : Access personal health records and prescriptions.
- Profile Customization : Update contact details and preferences.
- Appointment History : View past and upcoming consultations.

4. System-Wide Features

- Multi-Device Compatibility : Fully responsive interface.
- Role-Based Security : Encrypted login and data protection.
- Communication Hub : Integrated messaging system.
- Automated Notifications : Email/SMS reminders for appointments.

Technology Stack

- Frontend : HTML5, CSS3, JavaScript (jQuery, AJAX)
- Backend : PHP 7.x (PDO for database operations)
- Database : MySQL 5.x (Normalized relational structure)
- Server : Cross-platform (XAMPP/WAMP/MAMP/LAMP)
- Security : Password hashing, SQL injection prevention

Expected Benefits

- Operational Efficiency : 60% reduction in administrative workload.
- Improved Accuracy : Minimized data entry errors.
- Enhanced Accessibility : 24/7 system availability.
- Patient Satisfaction : Streamlined appointment processes.
- Data-Driven Decisions : Comprehensive reporting tools.

Conclusion

This HMS solution transforms traditional hospital workflows into a modern, digital ecosystem. By centralizing operations and improving data management, we aim to elevate healthcare service quality while reducing costs. We welcome the opportunity to discuss how this system can be tailored to your institution's specific needs.

Thank you for your consideration.

Best regards,

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