PROBLEM STATEMENT

Version-1.0

MediKlaud - a hospital services management system for doctors, patients and pharmacists.

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Introduction

JMI Hospital, a leading healthcare institution, is seeking a comprehensive software solution to streamline its operations and enhance patient care. As a Lead Software Engineer, I am assigned for this tasked with designing and developing a web-based platform to manage various aspects of the hospital's services, catering to doctors, patients, pharmacists, and hospital staff.

Doctor Management

The system aims to facilitate efficient management of doctors affiliated with the hospital. The Chief Medical Officer (CMO) or designated personnel should be able to register doctors joining the hospital network. Each doctor is assigned a unique identifier, and their personal information such as name, contact details, specialty, and qualifications are recorded in the system. Doctors should be able to access the system to view their schedules, patient appointments, and relevant patient information.

Patient Management

The system should provide a seamless experience for patients seeking medical services at JMI Hospital. Front desk staff or registration clerks will use the system to enroll new patients, capturing essential details including name, contact information, address, and date of birth. Patients should have the ability to schedule appointments both online and through phone calls. Upon booking, patients should receive confirmation notifications via email or SMS. Patients should also be able to view their upcoming appointments, request changes or cancellations, and access their medical records securely through the system.

Pharmacy Management

The system should integrate pharmacy services to ensure smooth coordination between medical prescriptions and dispensing medications. Pharmacists should have access to the system to manage inventory, process prescriptions, track medication dispensation, and generate reports as required. The system should also enable pharmacists to verify patient information, monitor drug interactions, and provide necessary counselling to patients.

Billing and Payment Management

The system should integrate billing and payment functionalities to streamline financial transactions related to medical services. It should generate accurate invoices for patients based on the services rendered, including consultations, procedures, and medications. Patients should be able to view and settle their bills securely through the platform. Moreover, the system should flag any outstanding bills to prevent patients from scheduling new appointments until previous dues are cleared.

Regulatory Compliance and Data Security

Ensuring compliance with healthcare regulations and safeguarding sensitive patient information is paramount. The system should adhere to industry standards for data security and privacy, implementing robust authentication mechanisms, encryption protocols, and access controls. It should also facilitate compliance with HIPAA regulations, ensuring the confidentiality and integrity of patient records at all times.

Conclusion

In summary, the Hospital Services Management System aims to revolutionize the way JMI Hospital delivers healthcare services by providing a unified platform for doctors, patients, and pharmacists. By streamlining operations, enhancing communication, and prioritizing patient care, the system will empower JMI Hospital to achieve its mission of providing high-quality healthcare services to the community.