**Project: Hospital Management System**

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**Task 3: Define Project Requirements**

**1. Features and Functionalities:**

1. **User Authentication:**
   * Different access levels for administrators, doctors, nurses, and other staff.
   * Secure login with username and password.
2. **Patient Management:**
   * Record patient details, including personal information, medical history, and contact information.
   * Assign unique identifiers or medical record numbers.
   * Track patient admissions, discharges, and transfers.
3. **Appointment Scheduling:**
   * Allow patients to schedule appointments online.
   * Provide a calendar for doctors to manage their schedules.
   * Send reminders to patients about upcoming appointments.
4. **Billing and Invoicing:**
   * Generate and manage bills for medical services.
   * Integrate with insurance systems for claims processing.
   * Provide financial reports for administrators.
5. **Pharmacy Management:**
   * Maintain a database of medicines and their availability.
   * Enable prescription management and tracking of medication dispensing.
   * Integrate with inventory management to track stock levels.
6. **Laboratory Integration:**
   * Support ordering and tracking of laboratory tests.
   * Display results electronically within the system.
   * Ensure the confidentiality and security of test results.
7. **Reporting and Analytics:**
   * Provide customizable reports for administrators and department heads.
   * Analyze hospital performance and key metrics.
   * Ensure compliance with regulatory reporting requirements.

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**2. Technical Constraints or Considerations:**

1. **Security:**
   * Implement robust security measures to protect patient data.
   * Comply with healthcare data protection standards.
2. **Scalability:**
   * Design the system to handle a growing number of users, patients, and data.
3. **Integration:**
   * Ensure compatibility with existing hospital systems and third-party services.
   * Support interoperability standards for healthcare information exchange.
4. **User-Friendly Interface:**
   * Design an intuitive and user-friendly interface for easy navigation.
   * Consider accessibility standards for users with disabilities..
5. **Regulatory Compliance:**
   * Stay updated on healthcare regulations and comply with relevant standards.
   * Regularly audit the system to ensure adherence to compliance requirements.
6. **Mobile Responsiveness:**
   * Ensure the system is accessible and usable on various devices, including mobile phones and tablets.

**Conclusion:**

By addressing these features and considerations, the Hospital Management System can enhance the efficiency of healthcare operations, improve patient care, and ensure compliance with industry standards and regulations.

**Phase 2 Part 4**

**User Stories for Hospital Management System:**

**1. User Authentication:**

* As a hospital administrator, I want to be able to create and manage user accounts for different roles, such as doctors, nurses, and administrative staff, to ensure secure access to the system.

**2. Patient Management:**

* As a receptionist, I want to be able to add new patients to the system by capturing their personal information, medical history, and contact details.
* As a nurse, I want to view a patient's medical records and update their information, including admissions, discharges, and transfers.

**3. Appointment Scheduling:**

* As a patient, I want to schedule an appointment with a specific doctor on a convenient date and time.
* As a doctor, I want to view my schedule and manage appointments to avoid conflicts.

**4. Billing and Invoicing:**

* As a billing clerk, I want to generate accurate bills for medical services rendered to patients.
* As an administrator, I want to view financial reports and track revenue generated by the hospital.

**5. Pharmacy Management:**

* As a pharmacist, I want to manage the inventory of medicines, update stock levels, and generate alerts for low stock.
* As a doctor, I want to prescribe medications electronically, with the prescription details integrated into the pharmacy system.

**6. Laboratory Integration:**

* As a doctor, I want to order laboratory tests for my patients and receive the results electronically.
* As a lab technician, I want to enter and update test results in the system.

**7. Reporting and Analytics:** - As an administrator, I want to generate customized reports on hospital performance, including patient outcomes and resource utilization. - As a department head, I want access to analytics to identify trends and areas for improvement.

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**Conclusion:**

By breaking down the project requirements into these user stories, development teams can better understand and prioritize the features needed for the Hospital Management System, leading to more effective and focused development iterations.

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