**Data Requirements**

* **Medical Records:** The system should maintain electronic health records (EHR) containing details of a patient's diagnoses, treatments, medications, laboratory results, radiology reports, and other medical information.

* **Personal Information:** The system should capture and store patient,doctor,administrators data such as name, age, gender, contact information, medical history, and any relevant personal details.
* **Appointments and Scheduling:** The system should manage appointments and scheduling for patients, doctors, nurses, and other staff members. This includes recording appointment details, availability of healthcare professionals, and facilitating appointment booking and rescheduling.
* **Billing and Financial Information:** The system should handle billing and financial aspects of the hospital, including patient billing information, insurance details, payment records, and invoicing.
* **Inventory Management:** If the hospital manages its inventory internally, the system should track and manage inventory items such as medical supplies, equipment, medications, and their availability.
* **Staff and User Management:** The system should maintain a database of staff members, including doctors, nurses, administrators, and their relevant details like names, roles, contact information, and access privileges.
* **Reporting and Analytics:** The system should provide reporting and analytics capabilities, allowing administrators to generate various reports, such as patient statistics, financial summaries, operational metrics, and performance indicators.
* **Security and Privacy:** The document should specify the security and privacy requirements for protecting patient data.
* **Data Backup and Recovery:** The system should have provisions for regular data backups and a plan for data recovery in case of system failures or disasters.

**External Requirements**

* **Laboratory Information Systems (LIS):** System needs to interface with a laboratory information system, it specifies the requirements for exchanging lab orders, test results, and other relevant data between the two systems.
* **Pharmacy Systems:** System outline the requirements for managing medication orders, dispensing information, medication inventory updates, and drug-drug interaction checks.
* **Electronic Health Record (EHR) Systems:** System specifies the requirements for interoperability, including the ability to import/export patient demographics, medical history, and other relevant data.
* **Billing and Insurance Systems:** System defines the requirements for submitting claims, receiving payment information, managing insurance eligibility verification, and generating accurate financial reports.