**Requirement Gathering and Analysis Questions for a Medication Inventory System Database**

When gathering requirements for a database project focused on managing a **Medication Inventory System**, it is essential to ask questions that will help in understanding the scope, data structure, usage, and functional requirements. Below are the key questions to consider during the requirement-gathering process:

1. **What types of medication data will be stored?**
   * Will the database track details such as medication name, dosage, type (tablet, injection), and batch number?
   * Should expiration dates and reorder levels be included?
   * Will supplier details be linked to the medications?
2. **What metadata needs to be associated with each medication entry?**
   * Examples: medication ID, supplier ID, stock levels, reorder threshold, and unit cost.
   * Should additional attributes like storage conditions or special handling instructions be tracked?
   * Are there any regulatory compliance data requirements?
3. **How will data be collected and entered into the system?**
   * Will data be entered manually by pharmacy staff, via API integrations with existing systems, or through automated stock tracking tools?
   * Should the system support barcode/QR code scanning for quick data entry?
4. **What are the expected data volume and growth rate?**
   * How many medication records and transactions are expected initially?
   * What is the projected increase in stock transactions (e.g., daily, monthly)?
   * How should the database scale to accommodate business growth?
5. **What are the reporting and query requirements?**
   * Should the system support reports on low-stock medications, expired items, and supplier performance?
   * Will filtering by medication type, supplier, or dispensing date be required?
   * Are there any dashboard requirements for visualization?
6. **What are the access and security requirements?**
   * Who will access the system (e.g., pharmacists, administrators, suppliers)?
   * Should role-based access control (RBAC) be implemented?
   * Does the system need to comply with regulations such as HIPAA for patient-related data?
7. **What are the data retention and archival policies?**
   * How long should medication data and transaction history be retained?
   * Are there requirements for automatic archiving or deletion of old records?
   * Should backup data be kept for compliance or auditing purposes?
8. **What are the performance expectations?**
   * What is the acceptable response time for querying stock levels and generating reports?
   * Are there requirements for concurrent users and transaction loads?
   * Should the system provide real-time inventory updates?
9. **Will any integration with external systems be required?**
   * Should the system integrate with point-of-sale (POS) systems for seamless medication dispensing?
   * Is integration with electronic health records (EHR) or supplier databases necessary?
   * Will API support be needed for third-party logistics or suppliers?
10. **What are the backup and disaster recovery requirements?**

* How frequently should backups be performed?
* What is the required recovery time objective (RTO) and recovery point objective (RPO)?
* Are there specific failover and data redundancy measures needed?