

## **REQUIREMENT ANALYSIS PHASE**

Team ID	NM2025TMID04832
Project Name	Medical Inventory Management System
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### **Folder Reference:**

Document/Requirement Analysis/

Includes:

- Data Flow Diagrams and User Stories
- Solution Requirements
- Technology Stack Template
- Readme.md

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### **1. Functional Requirements**

- **Inventory Management:** Add, edit, delete medical stock.
  - **Stock Alerts:** Automated email/SMS alerts for low stock.
  - **Expiry Management:** Notify before medicine expiration.
  - **Supplier Management:** Maintain supplier details and purchase records.
  - **User Roles:** Admin, Pharmacist, Nurse, and Manager access levels.
  - **Reporting:** Generated daily/weekly inventory and usage reports.
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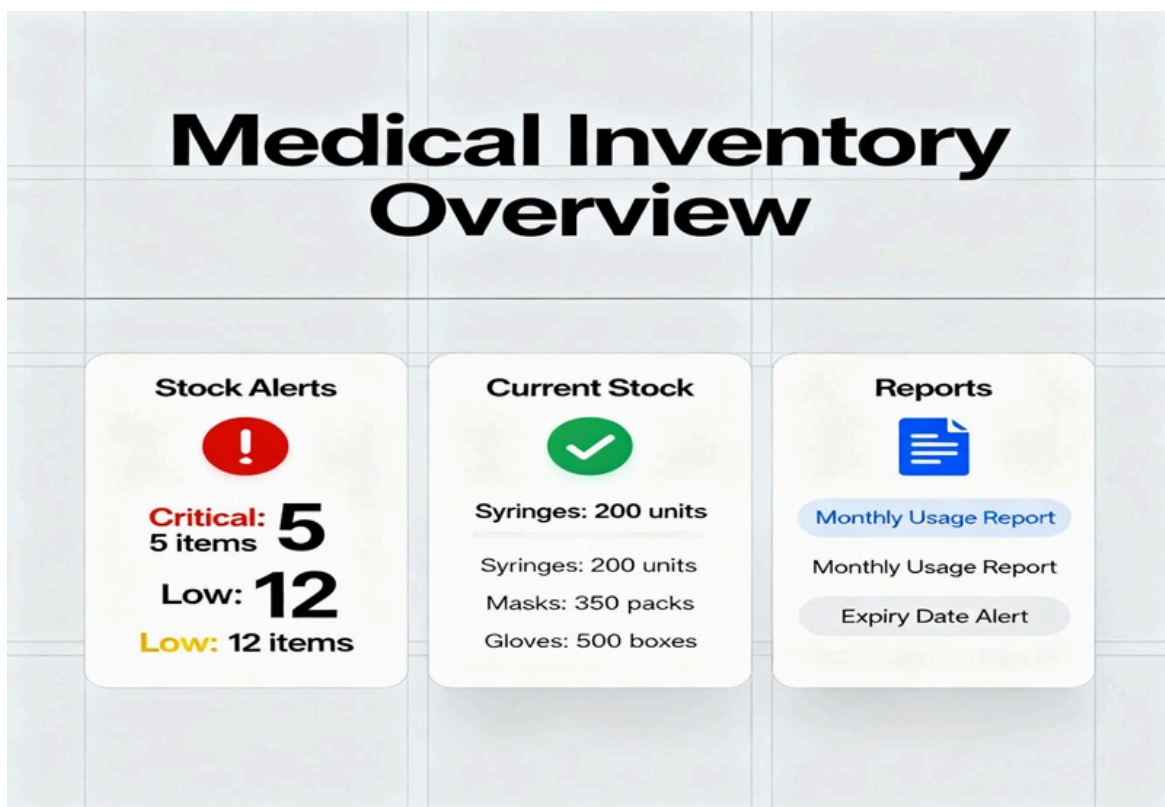
## 2. Non-Functional Requirements

- **Performance:** Real-time updates under heavy usage.
- **Scalability:** Support multiple branches or hospitals.
- **Maintainability:** Easy configuration and modular architecture.
- **Security:** Role-based authentication; encrypted database.
- **Reliability:** 99.9% uptime for hospital-critical operations.

Easy configuration and modular architecture.

## 3. Technology Stack

Layer	Tools & Frameworks
Frontend	HTML5, CSS3, JavaScript, ReactJS
Backend	Node.js, Express.js
Database	MongoDB
Authentication	JWT (JSON Web Token)
Version Control	GitHub
Deployment	AWS / Heroku



#### 4. User Stories

- **As a Pharmacist** , I can update the quantity when stock arrives.
- **As a Nurse**, I can view available medicines and request items.
- **As an Admin** , I can view overall inventory reports.
- **As a Manager** , I can track supplier performance and approve purchases.

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#### 5. Data Flow Diagram (Conceptual Description)

1. **User Login** → Validates credentials.
2. **Dashboard** → Displays inventory overview.
3. **Inventory Module** →CRUDOperationsonitems.
4. **Alerts Module** →Generatesexpiryorlow-stock notifications.
5. **Reports Module** →Aggregatesandvisualizes stock data.

