

# REQUIREMENT ANALYSIS PHASE

Team ID	NM2025TMID04832
Project Name	Medical Inventory Management System
Team Members	Mohamedfaizal(Reg.No:910322104029) Jeyakanth.R(Reg.No:910322104022) Rakesh.R(Reg.No: 910322104037) Nagarajan.R (Reg.No:910322104030)

## **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:** Generate daily/weekly inventory and usage reports.
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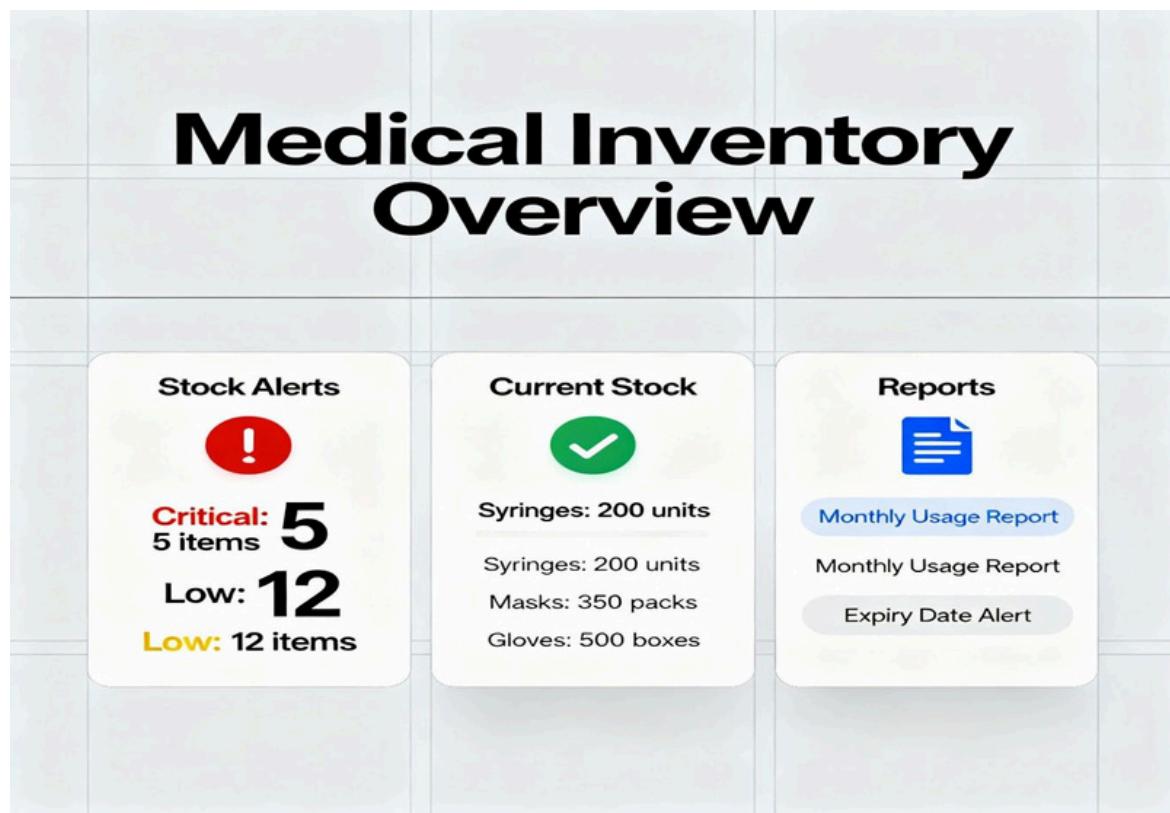
## 2. Non-Functional Requirements

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

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## 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.

## 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.

