

Project Planning Phase

Project Planning

Date	06 November 2025
Team ID	F529277D47452DB9E7447BD087E08E5E
Project Name	Medical Inventory Management
Maximum Marks	5 Marks

1. Project Overview

The Medical Inventory Management System (MIMS) aims to automate the tracking, ordering, and management of medical supplies, equipment, and medicines in healthcare facilities. It ensures real-time visibility of stock levels, reduces manual errors, and prevents shortages or overstocking.

2. Project Objectives

- To efficiently manage medical stock (add, update, delete, and monitor inventory).
- To generate automatic alerts for low-stock items.
- To track expiry dates and ensure timely disposal of expired medicines.
- To maintain supplier and purchase records digitally.
- To streamline purchase orders, billing, and distribution processes.

3. Project Scope

In-Scope

- Inventory tracking for medical equipment, medicines, and consumables.
- User roles: Admin, Pharmacist, Nurse, and Supplier.
- Barcode integration for easy scanning.
- Reports and dashboards (stock level, purchase history, expiry report).
- Integration with hospital database.

Out-of-Scope

- Integration with external ERP or accounting software (Phase 2).
- Patient prescription management.

4. Project Deliverables

Deliverable	Description	Expected Date
Project Charter	Project goals, stakeholders, and approval	Week 1
Requirement Specification (SRS)	Functional & Non-functional requirements	Week 2
System Design	Architecture diagrams, ERD, and UI mockups	Week 3
Development	Backend & Frontend coding	Week 4–8
Testing	Unit, Integration, and UAT testing	Week 9–10
Deployment	Production deployment & documentation	Week 11
Maintenance	Continuous updates & feedback cycle	Ongoing

5. Project Timeline (Gantt Overview)

Phase	Duration	Key Activities
Planning	Week 1	Define scope, objectives, resources
Analysis	Week 2	Collect requirements, prepare SRS
Design	Week 3	Create system architecture and UI design
Development	Week 4–8	Build and integrate modules
Testing	Week 9–10	Perform QA and fix bugs
Deployment	Week 11	Launch the system
Maintenance	Week 12+	Provide support and updates

6. Roles and Responsibilities

Role	Responsibility
Project Manager	Oversees project execution and milestones
System Analyst	Gathers and documents requirements
Developer	Builds frontend and backend features
Tester	Ensures quality and reliability of the system
Database Admin	Manages and secures the database
End Users	Provide feedback and validate usability

7. Resource Requirements

Hardware:

- Server or cloud hosting environment
- Computers with barcode scanners

Software:

- Frontend: HTML/CSS, JavaScript, React/Angular
- Backend: Java / Python / Node.js
- Database: MySQL / PostgreSQL
- Tools: GitHub, Jira, Postman

8. Risk Management

Risk	Impact	Mitigation Strategy
Data loss	High	Regular backups & cloud storage
System downtime	Medium	Use reliable hosting & monitoring
Expiry tracking failure	High	Automated alert system
Security breach	High	Role-based access & encryption

9. Testing Plan

- **Unit Testing:** Verify each module's functionality.
- **Integration Testing:** Test module interactions.
- **User Acceptance Testing (UAT):** Validate system usability with real users.
- **Performance Testing:** Check speed under heavy load.

10. Success Metrics

- 100% accuracy in inventory count.
- 80% reduction in manual stock entry errors.
- 50% faster restocking time.
- Timely alerts before expiry or low stock.

11. Project Closure

Upon successful deployment and validation, project closure will include:

- Final documentation submission
- Client handover & training
- Sign-off approval from stakeholders