Project Planning Phase

Date	**01 NOV 2025**
Team ID	**NM2025TMID02942**
Title	**Medical Inventory System**
Maximum Marks	**5 marks**

Purpose:
To develop a digital system that automates and centralizes the management of medical inventory across hospitals or clinics — ensuring real-time tracking, minimizing wastage, and improving supply chain efficiency.

Project Manager: [Your Name]
Project Duration: [e.g., 12 weeks]
Project Team: Developers, UI/UX Designers, Database Administrators, Testers, and Hospital IT Staff.

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2. Project Objectives

1. Develop a **real-time medical inventory tracking system** to ensure availability of essential supplies.
2. Automate **reorder alerts and expiry notifications** to reduce human error.
3. Provide **analytics and reporting tools** for decision-making and compliance.
4. Improve **communication between departments** (pharmacy, procurement, and administration).
5. Ensure **security, accuracy, and scalability** in managing medical inventory data.

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3. Project Scope

In-Scope:

- Design and development of an inventory management web application.

- Modules for stock management, suppliers, orders, and expiry tracking.
- Integration with email/SMS for notification alerts.
- Role-based access control (Admin, Pharmacist, Nurse, etc.).
- Dashboard and report generation.

Out-of-Scope:

- Integration with billing or patient management systems (future phase).
- Hardware-level barcode or RFID integration (optional).
- Third-party procurement automation (optional).

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4. Deliverables

Deliverable	**Description**	**Expected Output**
Requirement Specification Document	Functional & non-functional requirements	Approved SRS
System Design Document	Architecture, database, and UI/UX design	Design diagrams
Prototype / MVP	Initial working version	Tested web app
Final Application	Fully functional system	Deployed solution
User Manual	Documentation for staff training	Training guide
Testing Report	Test results and fixes	QA report

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5. Work Breakdown Structure (WBS)

Phase	**Key Tasks**	**Duration**
1. Requirement Analysis	Collect requirements, stakeholder interviews	2 weeks

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2. System Design	Architecture design, UI mockups, database schema	3 weeks
3. Development	Frontend and backend coding, module integration	5 weeks
4. Testing	Unit, integration, and user acceptance testing	2 weeks
5. Deployment	System installation and configuration	1 week
6. Training & Handover	Train staff, deliver manuals	1 week
7. Maintenance	Ongoing bug fixes and updates	Continuous

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6. Resource Plan

Human Resources

Role	Responsibility
Project Manager	Oversees execution and communication
System Analyst	Defines requirements and design specifications
Developer(s)	Build and integrate system modules
Database Administrator	Manages database design and performance
Tester	Conducts testing and quality assurance
UI/UX Designer	Designs user interface and experience
IT Support	Handles deployment and maintenance

Technical Resources

- Development Tools: VS Code, GitHub
- Database Server: MySQL / PostgreSQL
- Web Server: Apache / Nginx

- Cloud Platform: AWS / Azure (optional)
- Communication Tools: Slack, Teams, Trello

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7. Timeline (Gantt Chart Summary)

Week	Phase	Milestone
Week 1–2	Requirement Analysis	Approval of SRS
Week 3–5	System Design	Finalized architecture & UI design
Week 6–10	Development	Completed main modules
Week 11–12	Testing & Deployment	User Acceptance Testing & go-live