PHASE II : PROJECT PLANNING

Date	06 November 2025
Team ID	7DDB99C3AFBFD678BC14B32342A420F8
Project name	Medical Inventory Management
Maximum Marks	4 Marks

Title: Brainstorming for "Medical Inventory Management"

1.Objectives :

The objective of the planning phase is to define the **system requirements**, **identify key entities**, **allocate roles** and **responsibilities**, and establish the technical and organizational foundation needed for successful project implementation.

This phase ensures clarity, feasibility, and smooth execution in the later stages.

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2. Overview of the Planning Process :

- The planning process included:
- Understanding user requirements and workflows
- Identifying core data entities and their relationships
- Planning security roles and user access levels
- Selecting tools and technologies
- Scheduling tasks and allocating resources

- Preparing the environment for development and testing

- This phase ensures alignment between the project goals and implementation approach.

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3. Core Entity Identification :

- Key entities identified in the system (example):

- Users

- Items / Products / Food Donations / Medicines

- Requests / Orders / Transactions

- Notifications

- Reports

- Each entity was analyzed for its attributes, interactions, and database structure.

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4. Relationship Strategy :

- Relationships between entities were mapped using ER diagrams.
- One-to-many and many-to-many relationships were defined.
- Reference keys and data linkage rules were planned.
- Data normalization was ensured to avoid redundancy.
- This step ensures accurate data flow and efficient database performance.

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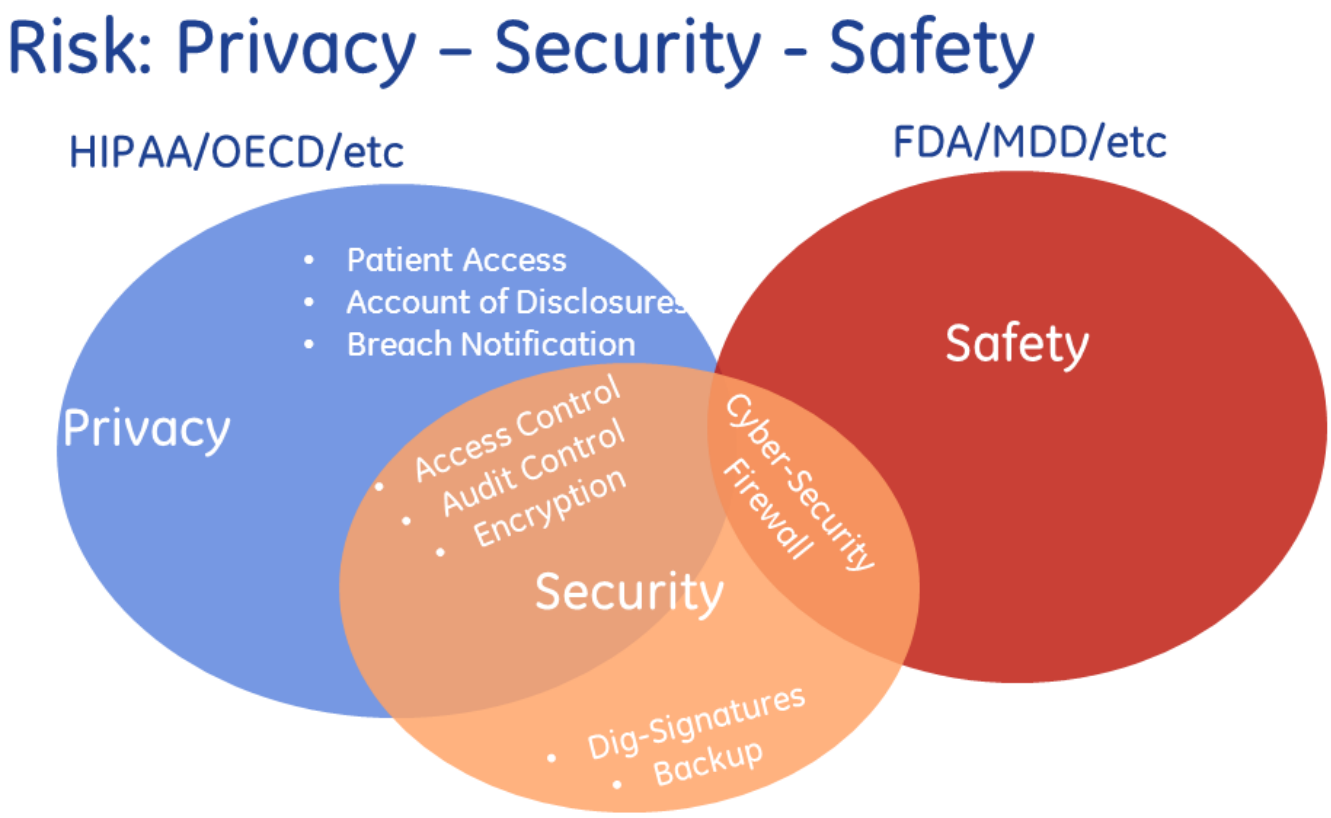
5. Security and Profile Planning:

- Role-Based Access Control (RBAC) strategy adopted.
- User profiles created based on job function (Admin, Staff, Volunteer, etc.).
- Authentication and authorization methods planned.
- Sensitive data protection and permission levels defined.



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6. Data Access and Sharing Rules :

- Data access rules ensure users see only the information relevant to their role.
- Restricted edit/delete privileges to prevent unauthorized changes.
- Database views and controlled query access used for secure data retrieval.
- Sharing rules ensure smooth collaboration while maintaining privacy.

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7. User Creation and Role Assignment :

- Different user accounts were defined with specific role permissions.

- Onboarding process established for adding new users in future.

- Training support planned for ensuring easy adoption of the system.

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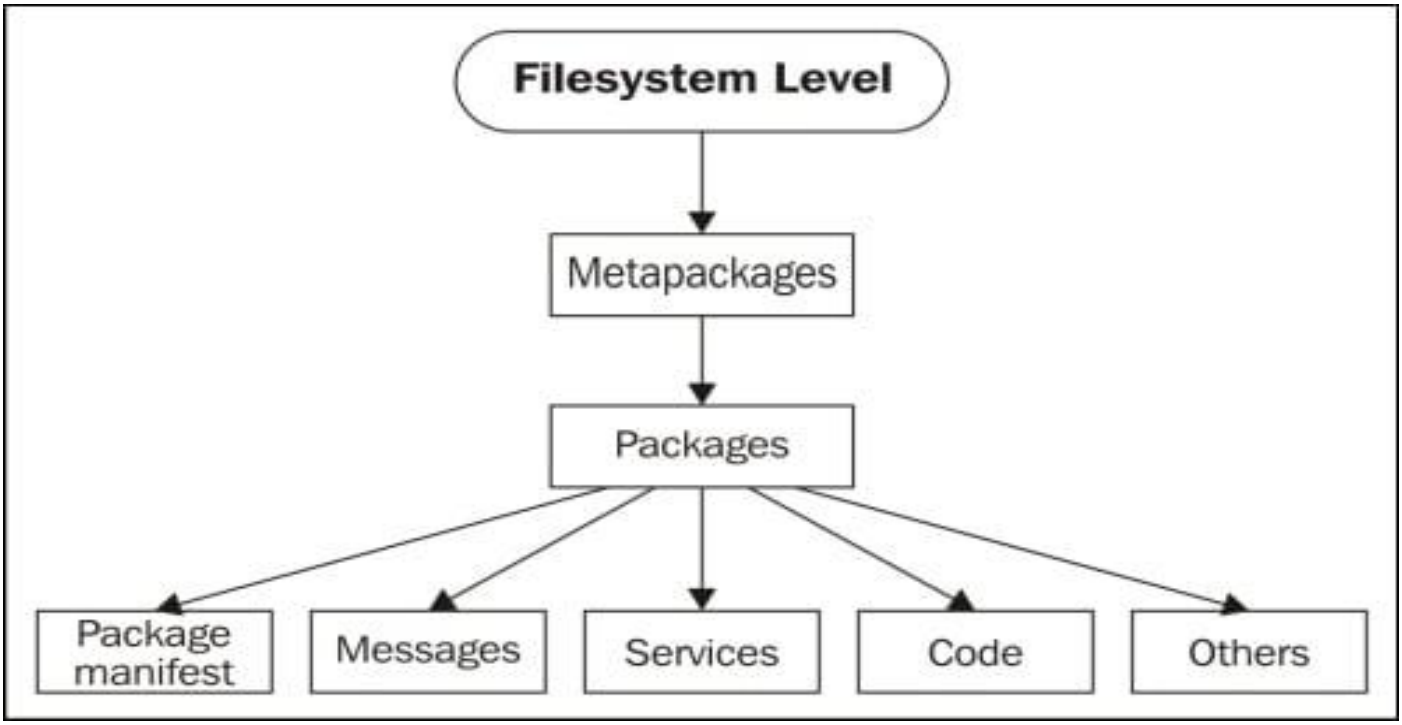
8. Environment Setup and Configuration :

- Development environment configured (software, libraries, frameworks).

- Database setup initialized with table structures.

- Test environment prepared for debugging and validation.

- Backup and version control system (e.g., Git) set up.



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9. Project Timeline and Resource Plan

Phase	Duration	Resources Involved
Requirement Analysis	1 Week	Team Lead + Client

Design & Planning	1 Week	Analyst + Developer
Development	2–4 Weeks	Developer Team
Testing	1–2 Weeks	QA Tester + Developer
Deployment & Training	1 Week	Admin + Users

This timeline may vary depending on project size.

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10. Tools and Resources Used :

- Software: VS Code / Eclipse / IntelliJ, Database (MySQL / PostgreSQL), Web Framework (e.g., React, Angular, Django).
- Collaboration: Git, Trello / Jira, Google Drive / OneDrive.
- Hardware: Standard computer systems/servers for hosting and testing.

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11. Expected Outcome of the Planning Phase :

- Clear understanding of system requirements and workflow.
- Well-defined roles, security structure, and data models.
- Ready development environment with planned architecture.
- Smooth development process with reduced risks and confusion.

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12. Summary :

The planning phase created a strong foundation for the project by clearly defining goals, entity relationships, access controls, timelines, and resource needs.

This ensures structured development, reduces errors, and improves coordination throughout the project lifecycle.