

*Dexter*

|                                  |   |
|----------------------------------|---|
| NAME                             | <b>DEXTER B. RAMOS</b>  |
| PROJECT TITLE                    | <b>RDB-ClinixDocs: A Web-Based Clinic Patient Document Management System</b>  |
| SUBJECT:                         | IT15/L Integrative Programming and Technologies   |
| CODE:                            | 8441  |
| TIME:                            | 10:00 AM – 12:00 PM   |
| TOPIC (Type of Business Process) | #17 Document Management System  |
| Products/Services                | Medical Clinic  |
| Agile Model - SDLC               | <p><b>Requirements and Planning Phase</b></p> <p><b>1. Requirements Identification</b></p> <p>The Requirements and Planning phase focuses on identifying the core needs of the RDB-ClinixDocs system based on the daily document management activities of small medical clinics. The primary goal of this phase is to define system functionalities that ensure secure, organized, and efficient handling of patient documents.</p> <p>Requirements were identified by analyzing clinic workflows related to document storage, retrieval, version tracking, and access control. These requirements serve as the foundation for planning development tasks in subsequent Agile sprints.</p> <p><b>2. Functional Requirements</b></p> <ul style="list-style-type: none"><li>• The system shall allow clinic administrators and authorized clinic staff to upload patient documents such as medical records, lab results, and prescriptions.</li><li>• The system shall store patient documents in a centralized and secure digital repository.</li><li>• The system shall support document version control to maintain previous versions and track document changes.</li><li>• The system shall enable users to retrieve patient documents using search filters such as patient name, document type, and upload date.</li><li>• The system shall implement role-based access control to ensure that only authorized users can access specific system features.</li><li>• The system shall allow authorized users to archive inactive or outdated patient documents.</li><li>• The system shall automatically manage document retention based on predefined clinic policies.</li><li>• The system shall record user activities through an audit trail for monitoring and security purposes.</li></ul> <p><b>3. Non-Functional Requirements</b></p> <ul style="list-style-type: none"><li>• The system shall ensure data security and patient confidentiality through authentication and authorization mechanisms.</li><li>• The system shall provide secure file upload handling to prevent unauthorized or malicious file access.</li></ul> |

- The system shall be user-friendly and easy to use for clinic staff with minimal technical knowledge.
- The system shall be scalable to support future enhancements and increased document storage needs.
- The system shall provide reliable system performance with minimal downtime.

#### **4. User Roles and Access Planning**

##### **Super Admin**

- Full access to all system modules
- Manages user accounts, roles, and permissions
- Oversees document archiving, retention policies, and audit logs

##### **Clinic Administrator**

- Manages clinic staff accounts and access permissions
- Uploads, edits, retrieves, and archives patient documents
- Monitors document versions and activity logs

##### **Authorized Clinic Staff**

- Uploads and edits patient documents
- Searches and retrieves patient records
- Views document version history
- Archives documents when permitted

#### **5. Product Backlog Planning**

##### **Initial Product Backlog Items:**

- User authentication and role-based authorization
- Patient Document API for document upload and retrieval
- Document storage and management module
- Version control module for patient documents
- Document retrieval and search module
- Archiving and retention management module
- Activity logs and audit trail module

#### **6. Sprint Planning Strategy**

- Early sprints focus on system setup, database design, and core document upload and retrieval features.
- Later sprints focus on advanced functionalities such as version control, archiving, retention policies, and audit logging.

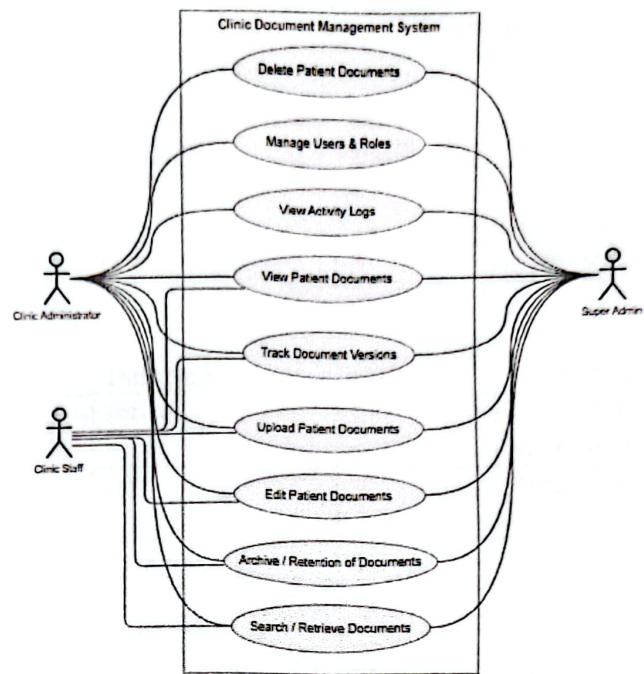
#### **7. Planning Outcome**

The Requirements and Planning phase establishes a clear understanding of system objectives, user roles, and prioritized features for RDB-ClinixDocs. By applying the Agile SDLC, the project ensures that development remains flexible, secure, and aligned with the operational needs of small medical clinics.

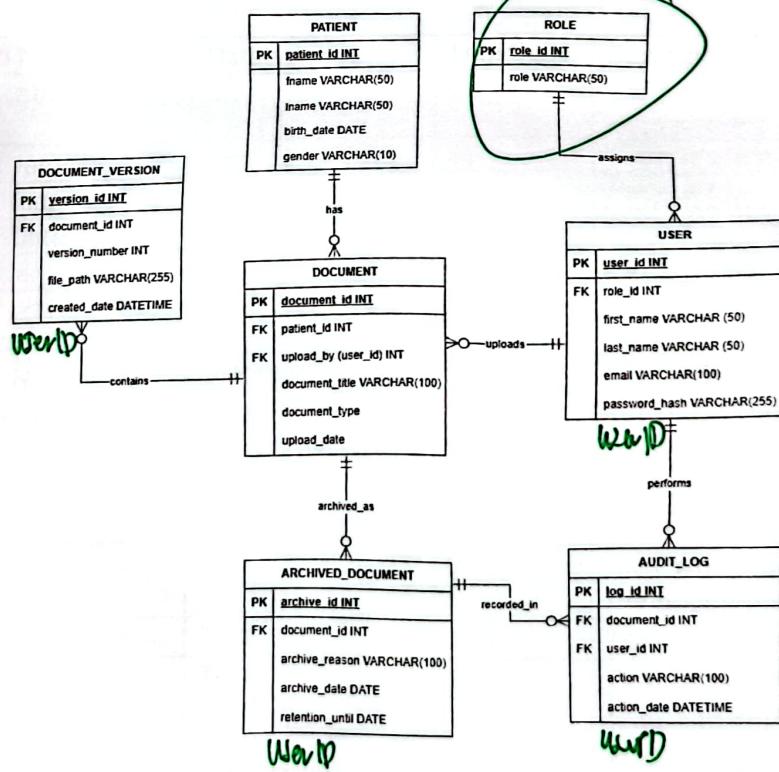
This phase provides a structured yet adaptable roadmap for building a secure and efficient Web-Based Clinic Patient Document Management System.

## Use Case Diagram

(Diagram Only)



## Entity Relational Diagram



**Data Dictionary****RDB-ClinixDocs: A Web-Based Clinic Patient Document Management System****Role table**

| Field Names | Datatype | Length | Description                     |
|-------------|----------|--------|---------------------------------|
| RoleID-PK   | Int-AI   | 9      | Unique identifier for each role |
| Role        | Text     | 50     | Name of the role                |

**User table**

| Field Names  | Datatype | Length | Description                     |
|--------------|----------|--------|---------------------------------|
| UserID-PK    | Int-AI   | 9      | Unique identifier for each user |
| RoleID-FK    | Int      | 9      | Role assigned to the user       |
| FirstName    | Text     | 50     | User's first name               |
| LastName     | Text     | 50     | User's last name                |
| Email        | Text     | 100    | User's email address            |
| PasswordHash | Text     | 255    | Encrypted password of the user  |

**Patient table**

| Field Names  | Datatype | Length | Description                        |
|--------------|----------|--------|------------------------------------|
| PatientID-PK | Int-AI   | 9      | Unique identifier for each patient |
| FirstName    | Text     | 50     | Patient's first name               |
| LastName     | Text     | 50     | Patient's last name                |
| BirthDate    | Date     | —      | Patient's date of birth            |
| Gender       | Text     | 10     | Patient's gender                   |

**UserID -PK****Document table**

| Field Names   | Datatype | Length | Description                                       |
|---------------|----------|--------|---|
| DocumentID-PK | Int-AI   | 9      | Unique identifier for each document               |
| PatientID-FK  | Int      | 9      | Patient associated with the document              |
| UploadBy      | Int      | 9      | User who uploaded the document                    |
| DocumentTitle | Text     | 100    | Title of the document                             |
| DocumentType  | Text     | 50     | Type of document (e.g., Lab Report, Prescription) |

**UserID PK**

|            |      |   |                                |
|------------|------|---|--------------------------------|
| UploadDate | Date | — | Date the document was uploaded |
|------------|------|---|--------------------------------|

#### DocumentVersion table

| Field Names   | Datatype | Length | Description                                 |
|---------------|----------|--------|---|
| VersionID-PK  | Int-AI   | 9      | Unique identifier for each document version |
| DocumentID-FK | Int      | 9      | Associated document                         |
| VersionNumber | Int      | 9      | Version number of the document              |
| FilePath      | Text     | 255    | File Storage Path                           |
| CreatedDate   | DateTime | —      | Patient's gender                            |

#### ArchiveDocument Table

| Field Names    | Datatype | Length | Description                                  |
|----------------|----------|--------|--|
| ArchiveID-PK   | Int-AI   | 9      | Unique identifier for each archived document |
| DocumentID-FK  | Int      | 9      | Document being archived                      |
| ArchiveReason  | Text     | 100    | Reason for archiving                         |
| ArchiveDate    | Date     | —      | Date the document was archived               |
| RetentionUntil | Date     | —      | Retention expiration date                    |

#### ~~LogID~~-PK AuditLog table

| Field Names   | Datatype | Length | Description   |
|---------------|----------|--------|---|
| LogID-PK      | Int-AI   | 9      | Unique identifier for audit log entry               |
| DocumentID-FK | Int      | 9      | Document involved in the action                     |
| UserID-FK     | Int      | 9      | User who performed the action                       |
| Action        | Text     | 100    | Action performed e.g., (viewed, uploaded, archived) |
| ActionDate    | DateTime | —      | Date and time of the action                         |

|                    |   |
|--------------------|---|
| Date Submitted:    | February 4, 2026  |
| Teacher's Feedback | <p>- Observe the database</p> <p>- Check for ERD and Data dictating</p>   |
|                    | <p>Student's Signature (after feedbacking)</p> <p>Teacher's Signature</p> |
|                    |   |

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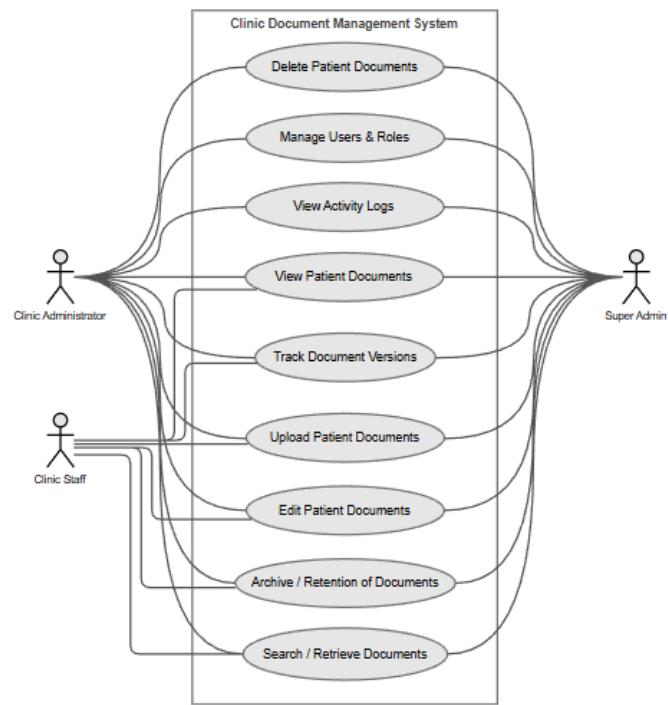
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#### **7. Planning Outcome**

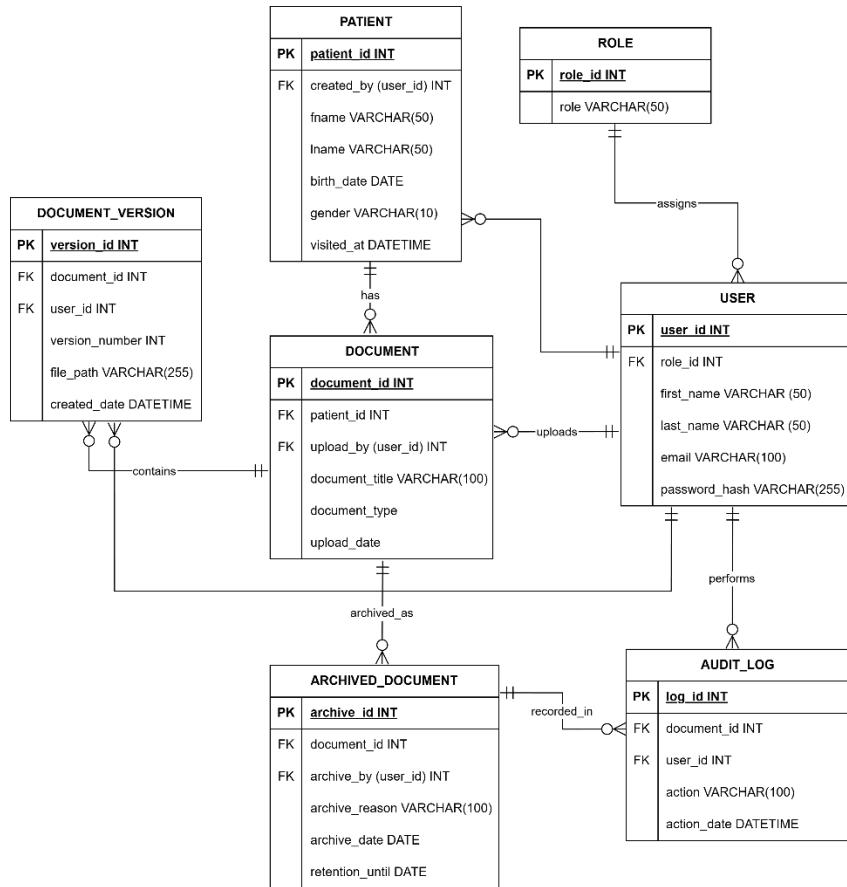
The Requirements and Planning phase establishes a clear understanding of system objectives, user roles, and prioritized features for RDB-ClinixDocs. By applying the Agile SDLC, the project ensures that development remains flexible, secure, and aligned with the operational needs of small medical clinics.

This phase provides a structured yet adaptable roadmap for building a secure and efficient Web-Based Clinic Patient Document Management System.

## Use Case Diagram (Diagram Only)



## Entity Relational Diagram



| Data Dictionary       |  | RDB-ClinixDocs: A Web-Based Clinic Patient Document Management System |        |                                      |  |  |  |  |  |
|-----------------------|--|---|--------|--------------------------------------|--|--|--|--|--|
| <b>Role table</b>     |  |   |        |                                      |  |  |  |  |  |
|                       |  |   |        |                                      |  |  |  |  |  |
| Field Names           |  | Datatype  | Length | Description                          |  |  |  |  |  |
| RoleID-PK             |  | Int-AI  | 9      | Unique identifier for each role      |  |  |  |  |  |
| Role                  |  | Varchar   | 50     | Name of the role                     |  |  |  |  |  |
| <b>User table</b>     |  |   |        |                                      |  |  |  |  |  |
|                       |  |   |        |                                      |  |  |  |  |  |
| Field Names           |  | Datatype  | Length | Description                          |  |  |  |  |  |
| UserID-PK             |  | Int-AI  | 9      | Unique identifier for each user      |  |  |  |  |  |
| RoleID-FK             |  | Int   | 9      | Role assigned to the user            |  |  |  |  |  |
| FirstName             |  | Varchar   | 50     | User's first name                    |  |  |  |  |  |
| LastName              |  | Varchar   | 50     | User's last name                     |  |  |  |  |  |
| Email                 |  | Varchar   | 100    | User's email address                 |  |  |  |  |  |
| PasswordHash          |  | Text  | 255    | Encrypted password of the user       |  |  |  |  |  |
| <b>Patient table</b>  |  |   |        |                                      |  |  |  |  |  |
|                       |  |   |        |                                      |  |  |  |  |  |
| Field Names           |  | Datatype  | Length | Description                          |  |  |  |  |  |
| PatientID-PK          |  | Int-AI  | 9      | Unique identifier for each patient   |  |  |  |  |  |
| UserID-FK             |  | Int   | 9      | User who created the patient record. |  |  |  |  |  |
| FirstName             |  | Varchar   | 50     | Patient's first name                 |  |  |  |  |  |
| LastName              |  | Varchar   | 50     | Patient's last name                  |  |  |  |  |  |
| BirthDate             |  | Date  | —      | Patient's date of birth              |  |  |  |  |  |
| Gender                |  | Varchar   | 10     | Patient's gender                     |  |  |  |  |  |
| <b>Document table</b> |  |   |        |                                      |  |  |  |  |  |
|                       |  |   |        |                                      |  |  |  |  |  |
| Field Names           |  | Datatype  | Length | Description                          |  |  |  |  |  |
| DocumentID-PK         |  | Int-AI  | 9      | Unique identifier for each document  |  |  |  |  |  |
| PatientID-FK          |  | Int   | 9      | Patient associated with the document |  |  |  |  |  |
| UserID-FK             |  | Int   | 9      | User who uploaded the document       |  |  |  |  |  |
| DocumentTitle         |  | Varchar   | 100    | Title of the document                |  |  |  |  |  |

|  |              |         |    |   |
|--|--------------|---------|----|---|
|  | DocumentType | Varchar | 50 | Type of document (e.g., Lab Report, Prescription) |
|  | UploadDate   | Date    | —  | Date the document was uploaded                    |

**DocumentVersion table**

| Field Names   | Datatype | Length | Description                                 |
|---------------|----------|--------|---|
| VersionID-PK  | Int-AI   | 9      | Unique identifier for each document version |
| DocumentID-FK | Int      | 9      | Associated document                         |
| UserID-FK     | Int      | 9      | User who updated the version of document.   |
| VersionNumber | Int      | 9      | Version number of the document              |
| FilePath      | Text     | 255    | File Storage Path                           |
| CreatedDate   | DateTime | —      | Patient's gender                            |

**ArchiveDocument Table**

| Field Names    | Datatype | Length | Description                                  |
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| ArchiveID-PK   | Int-AI   | 9      | Unique identifier for each archived document |
| DocumentID-FK  | Int      | 9      | Document being archived                      |
| UserID-FK      | Int      | 9      | User who archive the document                |
| ArchiveReason  | Varchar  | 100    | Reason for archiving                         |
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**AuditLog table**

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|                               |   |          |                     |   |
|-------------------------------|---|----------|---------------------|---|
|                               | Action  | Varchar  | 100                 | Action performed e.g.,<br>(viewed, uploaded,<br>archived) |
|                               | ActionDate  | Datetime | —                   | Date and time of the<br>action                            |
| <b>Date Submitted:</b>        | <b>February 16, 2026</b>  |          |                     |   |
| <b>Teacher's<br/>Feedback</b> | <hr/> |          |                     |   |
|                               | Student's Signature (after feedbacking)                           |          | Teacher's Signature |   |
|                               |   |          |                     |   |