

PHASE 1 — Planning & Design **(DONE)**

- ✓ Problem statement
- ✓ Feature list
- ✓ ER Diagram
- ✓ Tech stack decision (.NET + EF + MSSQL)

 **Status:** Completed

PHASE 2 — Database Layer (EF Core) **(DONE)**

- ✓ Models (Entities)
- ✓ DbContext
- ✓ Relationships
- ✓ Migrations
- ✓ Database creation

 **Status:** Completed
⚠ Do NOT touch unless schema changes

PHASE 3 — Architecture Setup

 Goal: Clean separation of responsibilities

What to create:

- ✓ Repositories
- ✓ Services
- ✓ DTOs
- ✓ Dependency Injection

📁 Structure:

Core

```
├── Interfaces  
├── DTOs  
└── Services
```

Infrastructure

```
├── Repositories  
└── FileStorage
```

👉 You are here now



PHASE 4 — Controllers (API Layer)

🎯 Goal: Expose backend functionality

Controllers:

- ✓ UsersController
- ✓ DocumentsController
- ✓ CommentsController

Responsibilities:

- Input validation
- Call Services

- Return HTTP responses

🚫 No DB logic allowed here

📁 PHASE 5 — File Upload & Storage

🎯 Goal: Real document handling

- ✓ Upload using `IFormFile`
- ✓ Store file in `wwwroot/uploads`
- ✓ Save metadata in DB
- ✓ Secure file access

Bonus:

- File size validation
- File type validation

💬 PHASE 6 — Inline Comments System

🎯 Goal: Core project feature

- ✓ Add comment on document
- ✓ Store text + position
- ✓ Fetch comments per document
- ✓ Edit / delete comments

(Optional: highlight text ranges)



PHASE 7 — Authentication & Authorization

🎯 Goal: Secure the app

- ✓ User registration
- ✓ Login / Logout
- ✓ Password hashing
- ✓ Role-based access

Options:

- ASP.NET Identity (recommended)
- JWT (if API-only)



PHASE 8 — Frontend Integration (MVC / Razor)

🎯 Goal: Usable UI

- ✓ Login / Register pages
- ✓ Upload document page
- ✓ Document list
- ✓ Document viewer
- ✓ Comment panel

Use:

- Razor Pages / MVC
- AJAX / Fetch API

PHASE 9 — Advanced Features (Optional)

⌚ Goal: Stand out in evaluation

- ✓ Search documents
- ✓ Version history
- ✓ Permissions (owner/collaborator)
- ✓ Notifications
- ✓ Activity logs