PROFILE
BOOK

ONLINE SOCIAL MEDIA PLATFORM

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BATCH NAME:WIPRO NGA - .Net Full Stack Angular – FY26WIPRO NGA - .Net Full Stack Angular - FY26 - C2

INSTRUCTOR DETAILS: JYOTI S. PATIL

DATE:8 SEPTEMBER 2025

PROBLEM DEFINITION AND OBJECTIVES

- In today's digital age, there is a growing need for secure and moderated social media platforms that provide meaningful connections while maintaining content quality and user safety. Existing social media platforms often lack proper content moderation, leading to inappropriate content circulation and user safety concerns. Additionally, many platforms don't provide administrators with comprehensive tools to manage users, approve content, and handle user reports effectively.

- The core problem this project addresses is: How to create a social media platform that balances user freedom of expression with administrative oversight and content quality control, while providing real-time communication capabilities and comprehensive user management features.
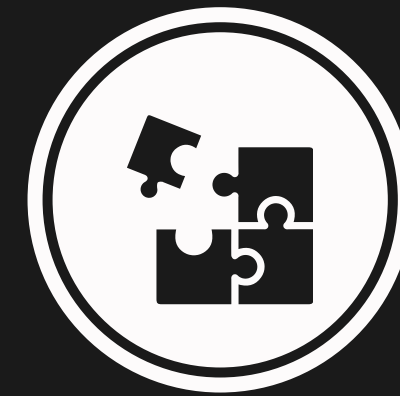
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OBJECTIVES

user experience

- Create an intuitive social media platform where users can seamlessly register, login, and interact with content with likes and comments

content quality

Implement a post approval system where all user-generated content is reviewed by administrators before publication

Administrative Control

- Create a safe environment through proper user management and reporting mechanisms
- Create reporting dashboards for monitoring user activities and reports
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TECHNICAL OBJECTIVES

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1 — SECURITY IMPLEMENTATION

Implement role-based access control (User vs Admin roles)

2 — API DOCUMENTATION AND TESTING

- Integrate Swagger UI for comprehensive API documentation
- Ensure all endpoints are properly documented and testable

3 — FILE MANAGEMENT

- Store images securely in server directories with database references

4 — MODERN FULL-STACK ARCHITECTURE

- Build a responsive Angular frontend for optimal user experience
- Develop a robust ASP.NET Core Web API backend for scalable business logic
- Implement SQL Server database with Entity Framework Core for efficient data management
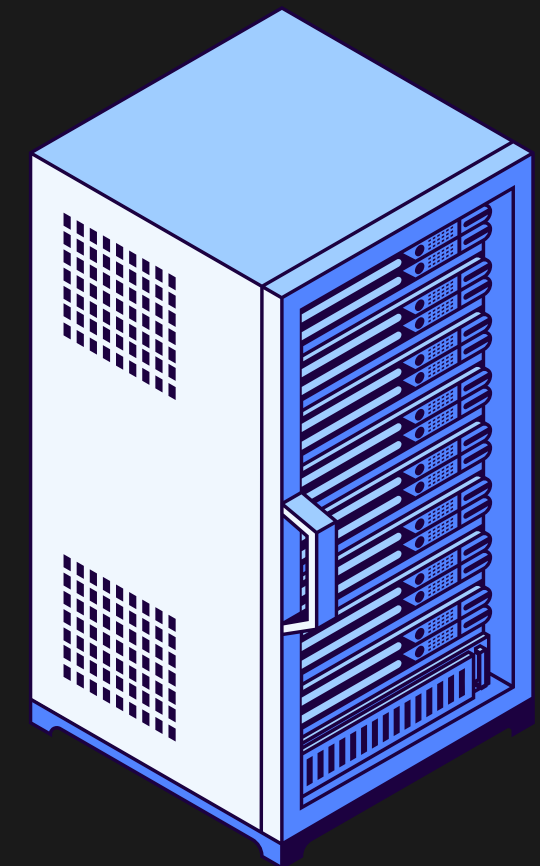
FRONTEND & BACKEND ARCHITECTURE

- Technology Stack Overview
- ProfileBook is built using a modern full-stack web architecture that separates concerns between presentation, business logic, and data layers. The application follows a client-server architecture pattern with RESTful API communication.
- Frontend Technology: Angular
- Framework: Angular (TypeScript-based framework)
- Purpose: Single Page Application (SPA) for responsive user interface
- Key Features:
- Component-based architecture for modular development
- Angular Router for client-side navigation
- Reactive forms for user input handling
- HTTP client for API communication
- State management for user sessions and application data

BACKEND TECHNOLOGY: ASP.NET CORE MVC WITH WEB API

- Framework: ASP.NET Core MVC

- Language: C#

- API: RESTful Web API endpoints

Key Features:
- MVC pattern for organized code structure
- Web API controllers for HTTP request handling
- Dependency injection for loose coupling
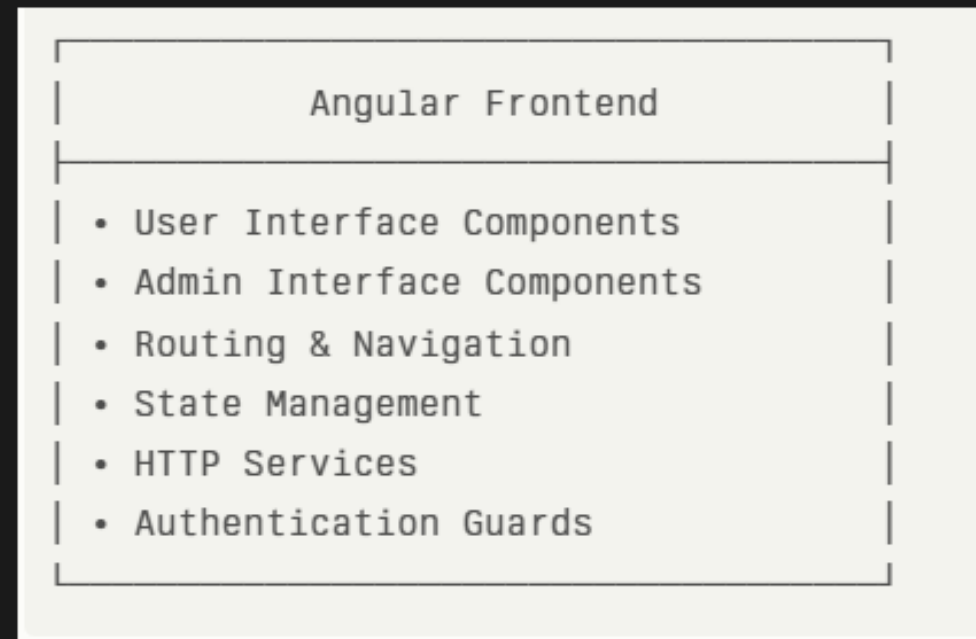- Middleware pipeline for request processing

DATABASE TECHNOLOGY: SQL SERVER WITH ENTITY FRAMEWORK CORE

- Database: Microsoft SQL Server

- ORM: Entity Framework Core (EF Core)

- Purpose: Data persistence and management

Key Features:
- Code-first approach for database schema
- LINQ queries for data access
- Migration support for schema changes
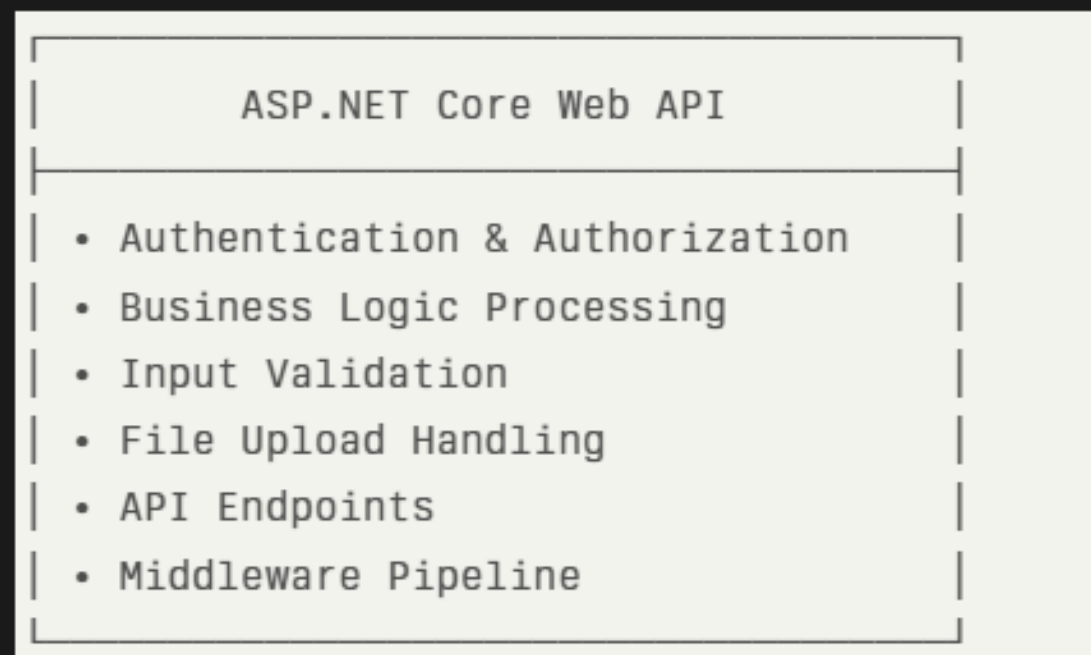- Relationship mapping for complex data structures
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Architecture Layers

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┌─────────────────────────────────────┐
│          Angular Frontend            │
├─────────────────────────────────────┤
│ • User Interface Components          │
│ • Admin Interface Components         │
│ • Routing & Navigation               │
│ • State Management                   │
│ • HTTP Services                      │
│ • Authentication Guards              │
└─────────────────────────────────────┘
```

Components Structure:

- User Components: Login, Register, Profile, Posts, Messaging
- Admin Components: Dashboard, User Management, Post Approval
- Shared Components: Header, Footer, Navigation
- Services: Authentication, HTTP Client, State Management

Business Logic Layer (ASP.NET Core Web API)

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┌─────────────────────────────────────┐
│          ASP.NET Core Web API        │
├─────────────────────────────────────┤
│ • Authentication & Authorization     │
│ • Business Logic Processing          │
│ • Input Validation                   │
│ • File Upload Handling               │
│ • API Endpoints                      │
│ • Middleware Pipeline                │
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API Controllers:

- UserController: User registration, login, profile management
- PostController: Post creation, approval, like/comment functionality
- MessageController: User-to-user messaging
- ReportController: User reporting system
- AdminController: Administrative operations
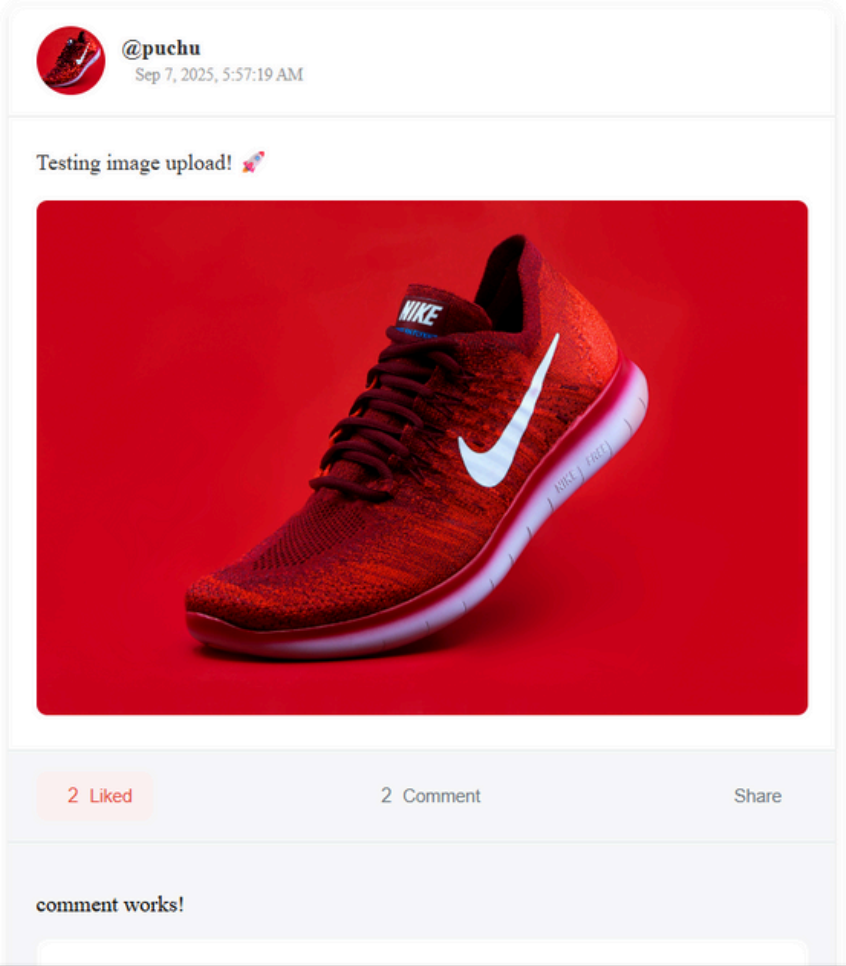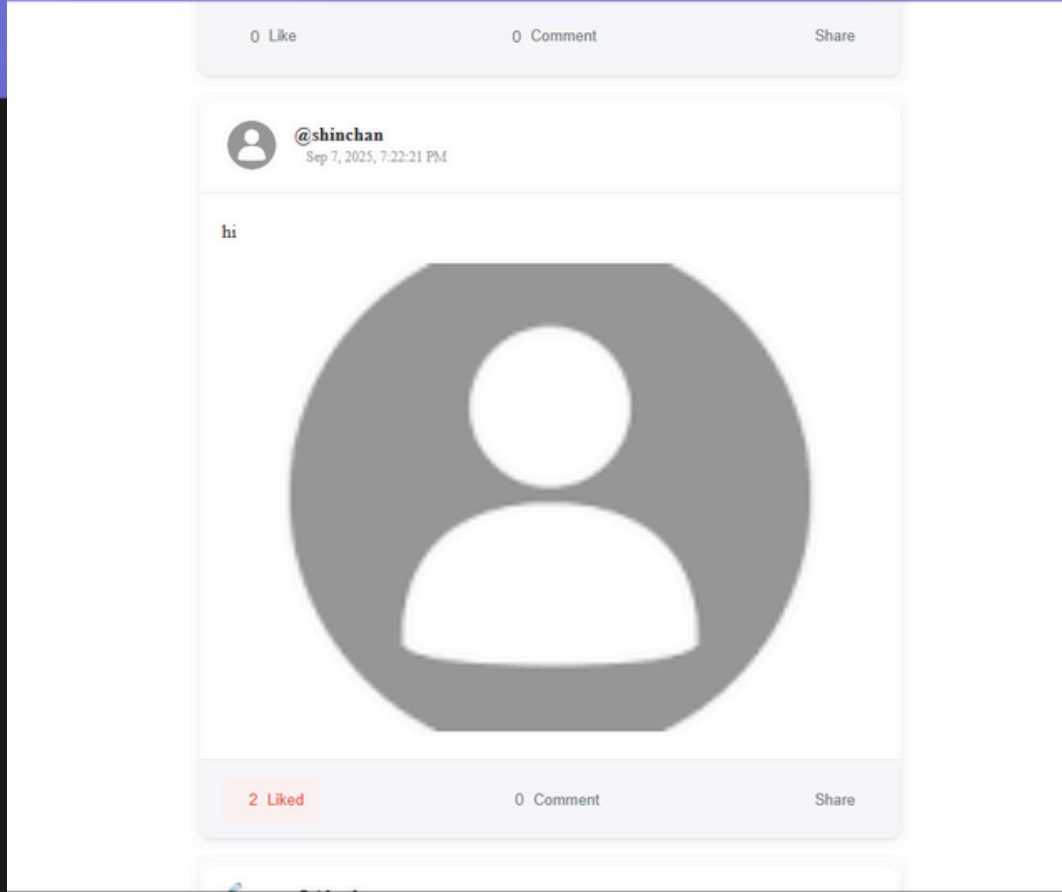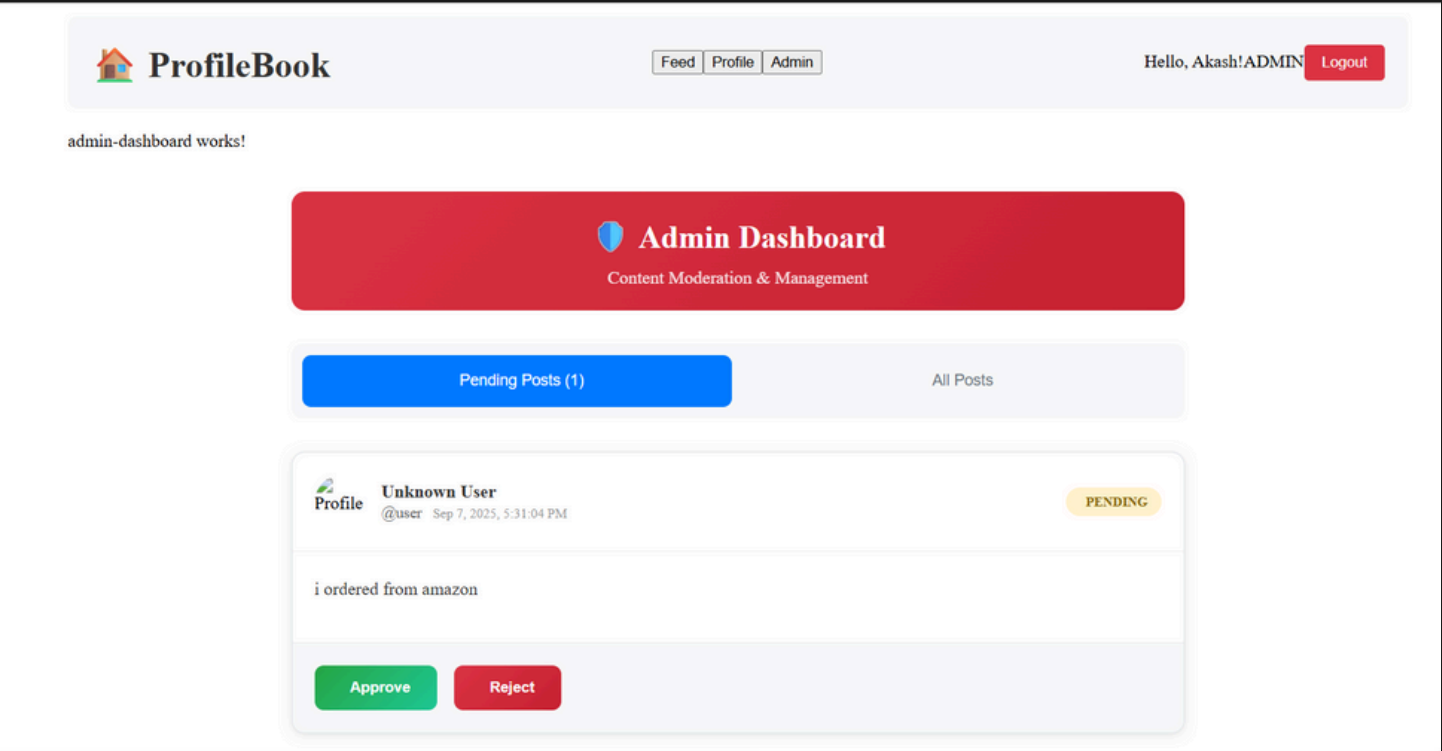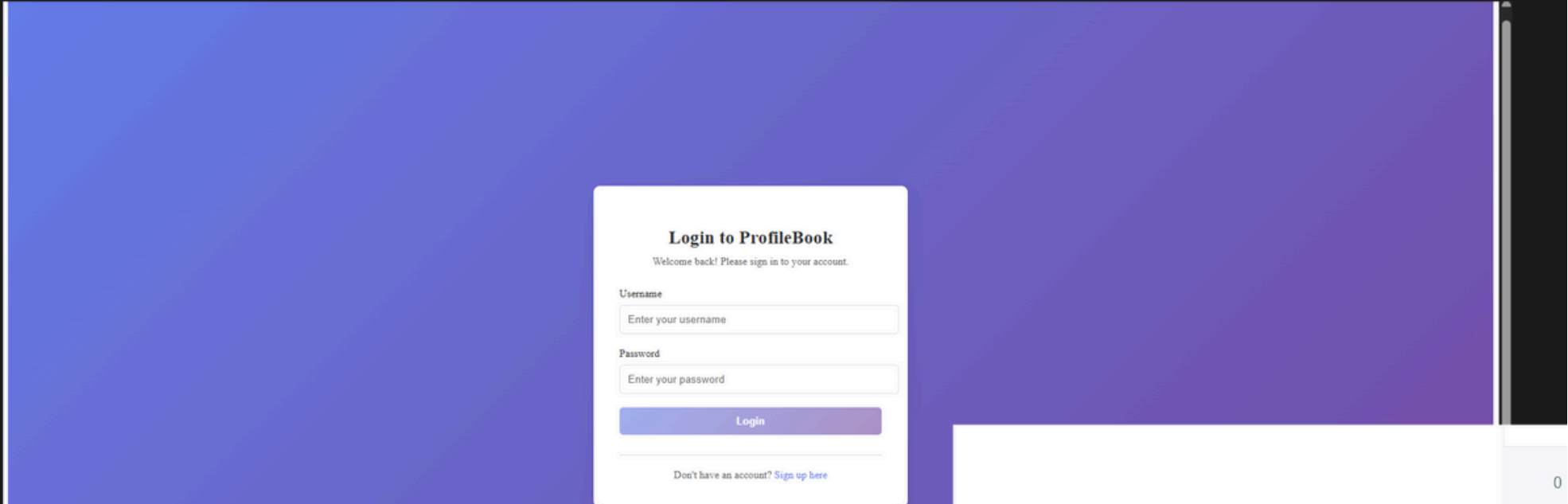
Database Layer (SQL Server)

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┌─────────────────────────────────────┐
│          SQL Server Database         │
├─────────────────────────────────────┤
│  • Users Table                       │
│  • Posts Table                       │
│  • Messages Table                    │
│  • Reports Table                     │
│  • Groups Table                      │
│  • Relationships & Constraints       │
└─────────────────────────────────────┘
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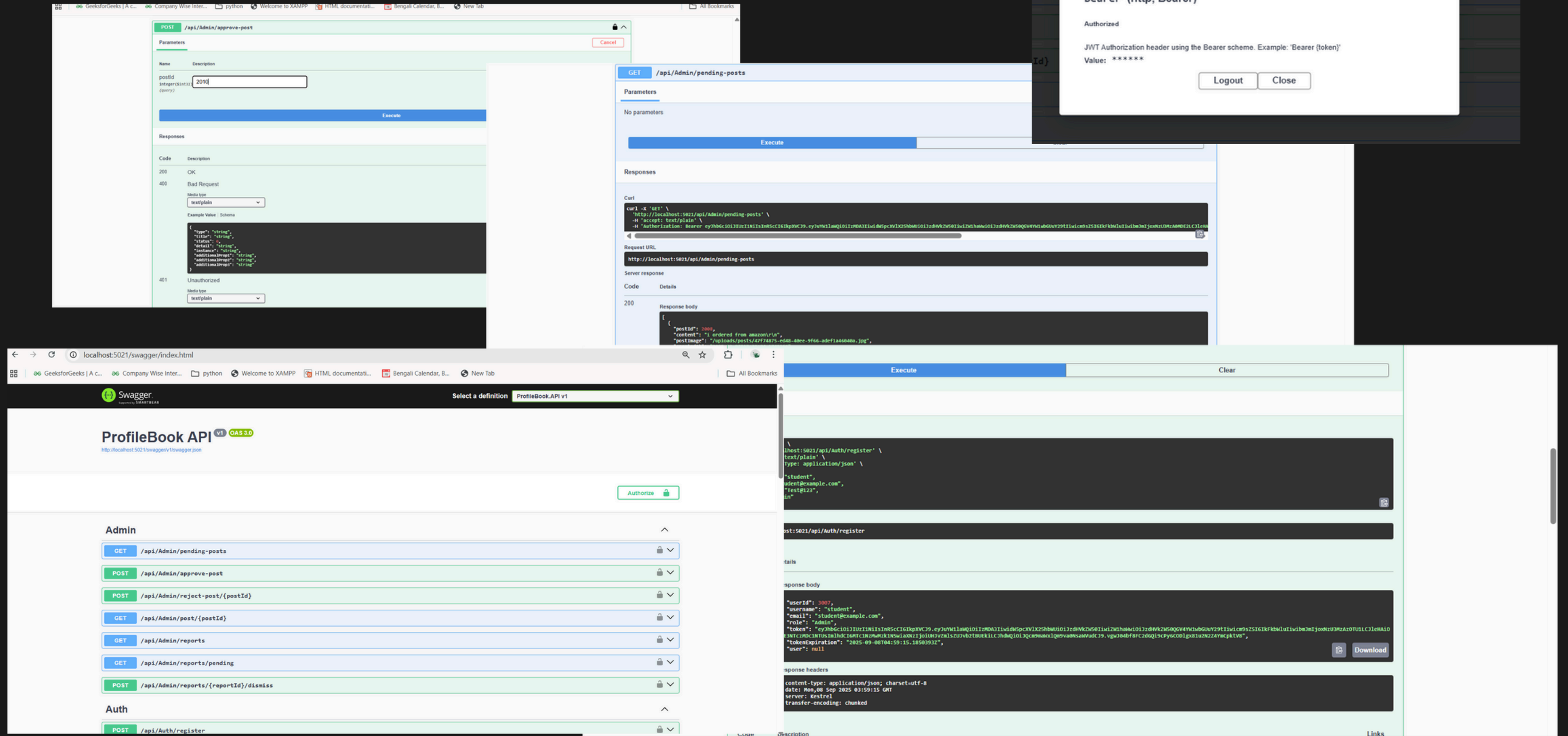
Request Flow:
User Interaction → Angular components capture user actions
HTTP Request → Angular services send API requests
API Processing → ASP.NET Core controllers handle business logic
Data Access → Entity Framework queries SQL Server
Response → Data flows back through the layers

screenshots

screenshots(backend)

THANNK YOU!
THE END!

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