Construction Company Management System

# 1. Introduction

## 1.1 Project Overview

This project is a Construction Company Management System that includes an admin dashboard to manage dynamic content like projects, blogs, testimonials, and image galleries. The frontend website will present this data to visitors with a modern, responsive, and user-friendly UI/UX design.

## 1.2 Purpose

To streamline content management for the construction company and create an engaging public-facing website.

## 1.3 Scope

- Admin Panel: CRUD operations for projects, blogs, testimonials, and images.  
- Frontend Website: Display content dynamically, responsive and engaging UI.  
- Technologies: Spring Boot (Backend), HTML/CSS/JS (Frontend), MySQL (DB)

# 2. Requirements Gathering

## 2.1 Stakeholders

- Admin (Company Staff)  
- Visitors (Clients and General Public)

## 2.2 Functional Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Feature | Role | Description |
| FR1 | Admin Login | Admin | Secure login for dashboard access |
| FR2 | Dashboard Overview | Admin | Summary of all managed entities |
| FR3 | Manage Projects | Admin | Create/edit/delete projects |
| FR4 | Manage Blogs | Admin | CRUD operations on blogs |
| FR5 | Manage Testimonials | Admin | CRUD operations for testimonials |
| FR6 | Manage Image Gallery | Admin | Upload/manage project images |
| FR7 | View Home Page | Visitor | View intro, highlights, call-to-action |
| FR8 | View Projects Page | Visitor | Browse and read project details |
| FR9 | View Blogs Page | Visitor | Read blog articles |
| FR10 | View Testimonials Page | Visitor | See client feedback |
| FR11 | View Image Gallery | Visitor | Browse portfolio images |
| FR12 | Contact Page & Form | Visitor | Submit inquiry form |

## 2.3 Non-Functional Requirements

|  |  |
| --- | --- |
| ID | Requirement |
| NFR1 | Mobile responsive design |
| NFR2 | Secure authentication |
| NFR3 | Validated input forms |
| NFR4 | Fast page load times |
| NFR5 | SEO-friendly URL structure |

# 3. UI/UX Design Summary

## 3.1 Frontend Pages

- Home  
- Projects  
- Blogs  
- Testimonials  
- Gallery  
- Contact

## 3.2 Admin Dashboard

- Login  
- Dashboard  
- Manage Projects  
- Manage Blogs  
- Manage Testimonials  
- Manage Gallery

# 4. Technical Documentation

## 4.1 Technology Stack

- Frontend: HTML, CSS, JavaScript (Bootstrap/Tailwind)  
- Backend: Spring Boot (REST APIs)  
- Database: MySQL  
- Tools: Eclipse/VS Code, Postman, Git

## 4.2 Backend API Endpoints (Examples)

|  |  |  |
| --- | --- | --- |
| Method | Endpoint | Description |
| POST | /api/login | Admin login |
| GET | /api/projects | List all projects |
| POST | /api/projects | Create new project |
| PUT | /api/projects/{id} | Update project |
| DELETE | /api/projects/{id} | Delete project |
| GET | /api/blogs | List all blogs |
| POST | /api/blogs | Create blog post |

## 4.3 Database Tables

- Users: id, username, password, role  
- Projects: id, title, description, location, images  
- Blogs: id, title, content, date  
- Testimonials: id, name, role, feedback  
- Gallery: id, image\_url, project\_id (FK)

# 5. Agile Plan

|  |  |
| --- | --- |
| Sprint | Tasks |
| Sprint 1 | Setup Spring Boot + MySQL, create base entities |
| Sprint 2 | Implement CRUD for Projects & Blogs |
| Sprint 3 | Frontend UI for Home, Projects, Blogs |
| Sprint 4 | Admin dashboard UI + Integration |
| Sprint 5 | Gallery, Testimonials, Contact Page |
| Sprint 6 | Final testing + deployment |

# 6. Future Enhancements

- Admin Role Management  
- Project Filtering by Category  
- Live Chat or WhatsApp Integration  
- Blog Comments Section

# 7. Conclusion

This project will provide a centralized system for managing company content with a rich, engaging frontend to improve visibility and client engagement.