**Technical Documentation**

**Project-Portfolio**

**Overview**

This project is a **modular, full-stack, and production-ready developer portfolio system**, composed of:

* A **client-facing frontend** (portfolio-client) for showcasing projects, skills, contact, etc.
* An **admin-facing dashboard** (portfolio-admin) for managing portfolio data.
* A **unified backend** (portfolio-backend) built with Spring Boot, integrated with PostgreSQL and Supabase Storage, exposing REST APIs for both frontends.

**Technologies Used**

**Shared Tech**

|  |  |
| --- | --- |
| **Category** | **Stack/Tools** |
| SCM | Git + GitHub |
| Build Tool | Maven (backend), Vite (frontend) |
| Versioning | SemVer + Git tags |
| Linting/Formatting | ESLint, Prettier |
| CI/CD | GitHub Actions |
| Deployment | Vercel (frontend), Railway (backend) |

**Client Frontend (portfolio-client)**

|  |  |
| --- | --- |
| **Area** | **Stack** |
| Framework | React 19 + Vite |
| Styling | SCSS + Bootstrap 5 |
| State | React Context API |
| Animation | Framer Motion |
| Routing | React Router DOM v7 |
| Translation | i18next |
| HTTP Client | Axios |
| Form Handling | React Bootstrap |

**Admin Frontend (portfolio-admin)**

|  |  |
| --- | --- |
| **Area** | **Stack** |
| Framework | React 19 + Vite |
| Routing | React Router |
| Auth | JWT + Protected Routes |
| UI Library | Bootstrap Admin Dashboard |
| File Upload | Supabase Storage Integration |
| DataGrid | React Table or MUI (optional) |

**Backend (portfolio-backend)**

|  |  |
| --- | --- |
| **Area** | **Stack** |
| Language | Java 17 |
| Framework | Spring Boot 3 |
| ORM | Spring Data JPA (Hibernate) |
| DB Migration | Flyway |
| DB | PostgreSQL (Supabase) |
| REST Docs | Swagger |
| Mapper | MapStruct |
| File Storage | Supabase Buckets |
| Validation | Hibernate Validator |
| Testing | JUnit 5, Mockito |
| Auth (optional) | Spring Security + JWT |

**Deployment Options**

|  |  |  |
| --- | --- | --- |
| **Component** | **Platform** | **Method** |
| Client Frontend | Vercel | Vite + GitHub CI/CD |
| Admin Frontend | Vercel (private) | Auth + protected dashboard |
| Backend API | Railway / Render | Java service |
| Database | Supabase (PostgreSQL) | DB + file uploads |
| File Uploads | Supabase Storage | via API or SDK |

**Testing**

|  |  |  |
| --- | --- | --- |
| **Layer** | **Test Type** | **Tech** |
| Unit | JUnit + Mockito | Services |
| Web | WebMvcTest | Controllers |
| DB | DataJpaTest | Repositories |

**Status**

* Frontend – Completed
* Admin Panel – Under development
* Backend – Under development