Entity System Documentation

Architecture Documentation

→ View Architecture Documentation

This documentation covers the design and implementation of the entity system, including lifecycle management, validation, and error handling.

Core Components

1. Entity Overview

   - High-level system architecture
   - Component interactions
   - System boundaries
   - Data flow

2. Core Classes

   - Class hierarchy
   - Base interfaces
   - Abstract implementations
   - Common functionality

3. Entity Lifecycle

   - State management
   - Status transitions
   - Validation hooks
   - Event publishing

4. Validation Framework

   - Validation layers
   - Business rules
   - Constraint handling
   - Cross-entity validation

5. Exception Handling

   - Exception hierarchy
   - Error response mapping
   - Transaction management
   - Recovery processes

6. Operation Sequences

   - Operation flows
   - State transitions

  - ○ Data persistence
  - ○ Event processing

Quick Links

Core Concepts

- [Entity Model Interface](#)
- [Status Management](#)
- [Validation Framework](#)
- [Event System](#)
- [Exception Handling](#)

Getting Started

1. Clone the repository

```
git clone https://github.com/your-username/your-repo.git
```

2. Build the project

```
./gradlew clean build
```

3. Run tests

```
./gradlew test
```

Additional Resources

References

- [Spring Framework Documentation](#)
- [Bean Validation](#)
- [JPA Documentation](#)

Tools

- [PlantUML](#) - Diagram generation
- [Spring Boot](#) - Application framework
- [JUnit 5](#) - Testing framework
- [Gradle](#) - Build tool