

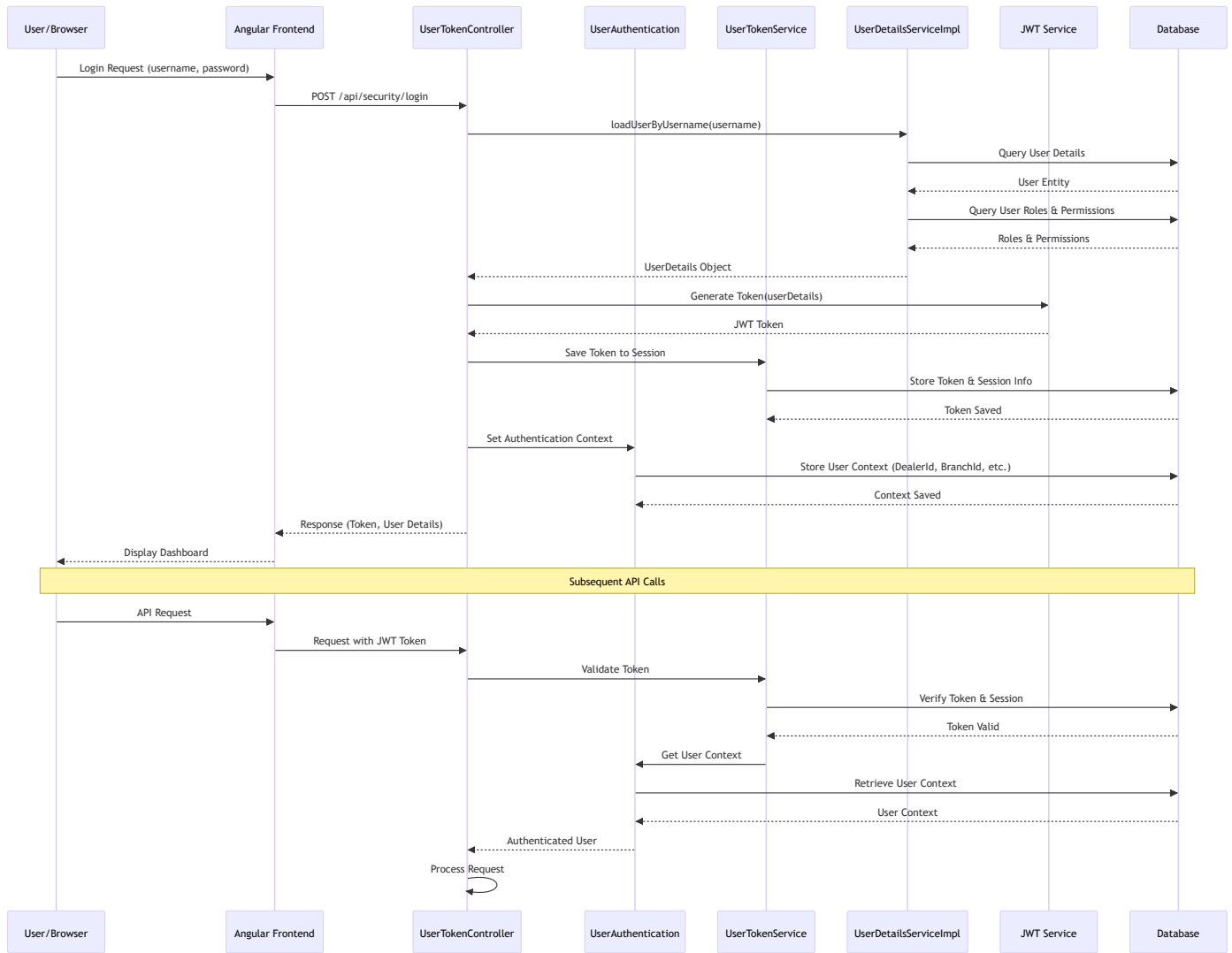
KUBOTA DMS - Detailed Sequence Diagrams

This document contains comprehensive sequence diagrams for the KUBOTA Dealer Management System (DMS), illustrating the main business flows and system interactions.

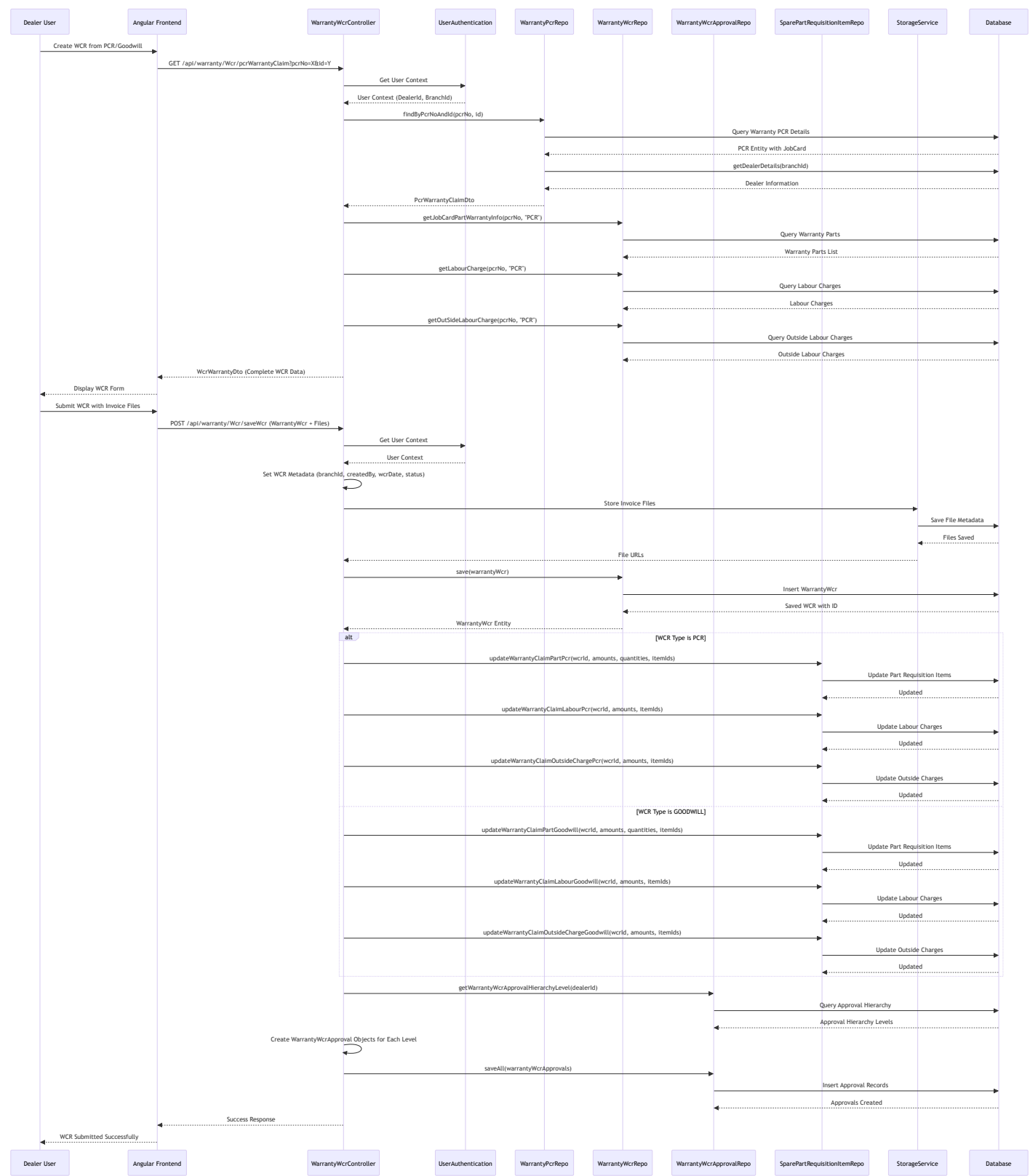
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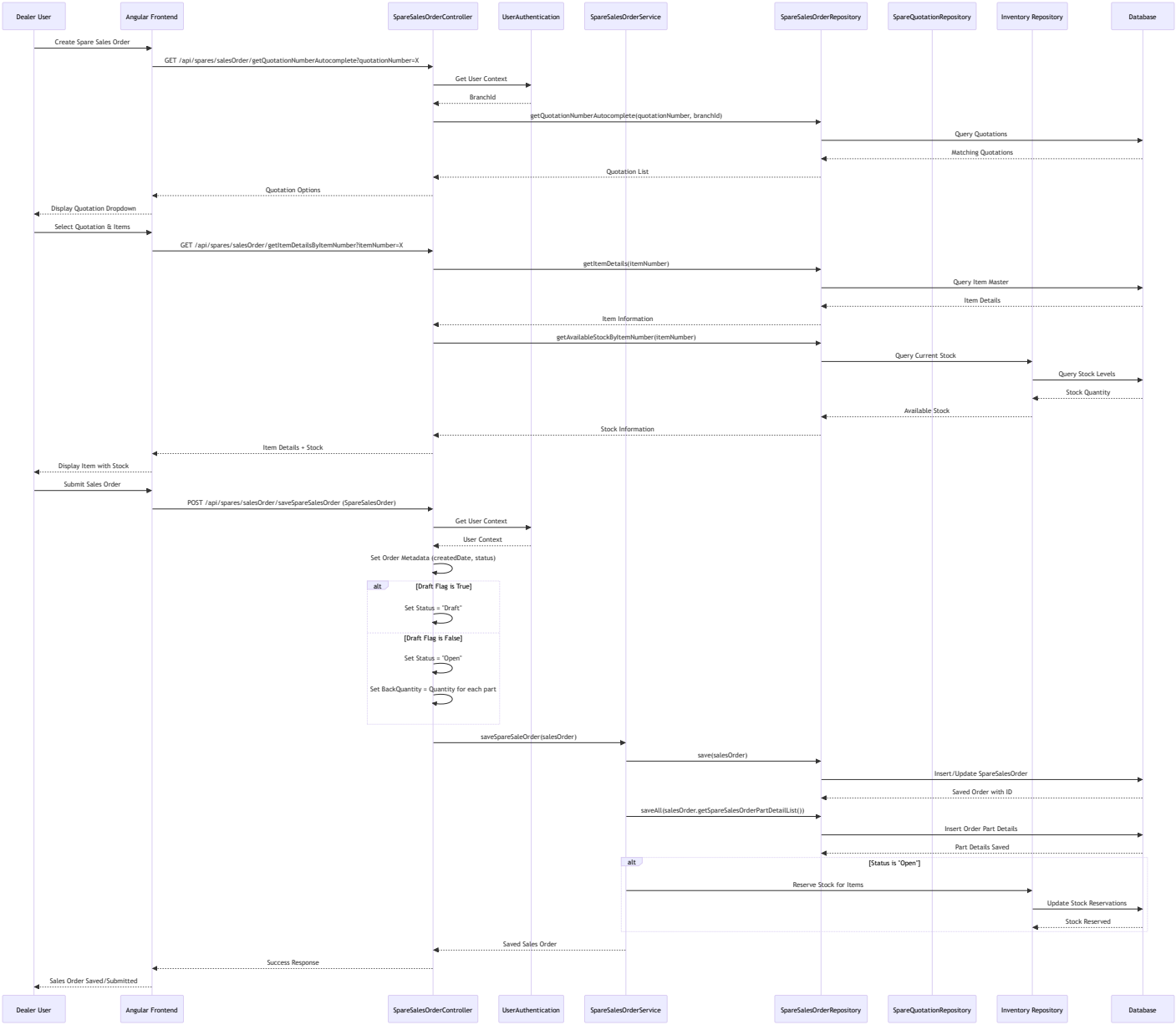
1. User Authentication & Authorization Flow



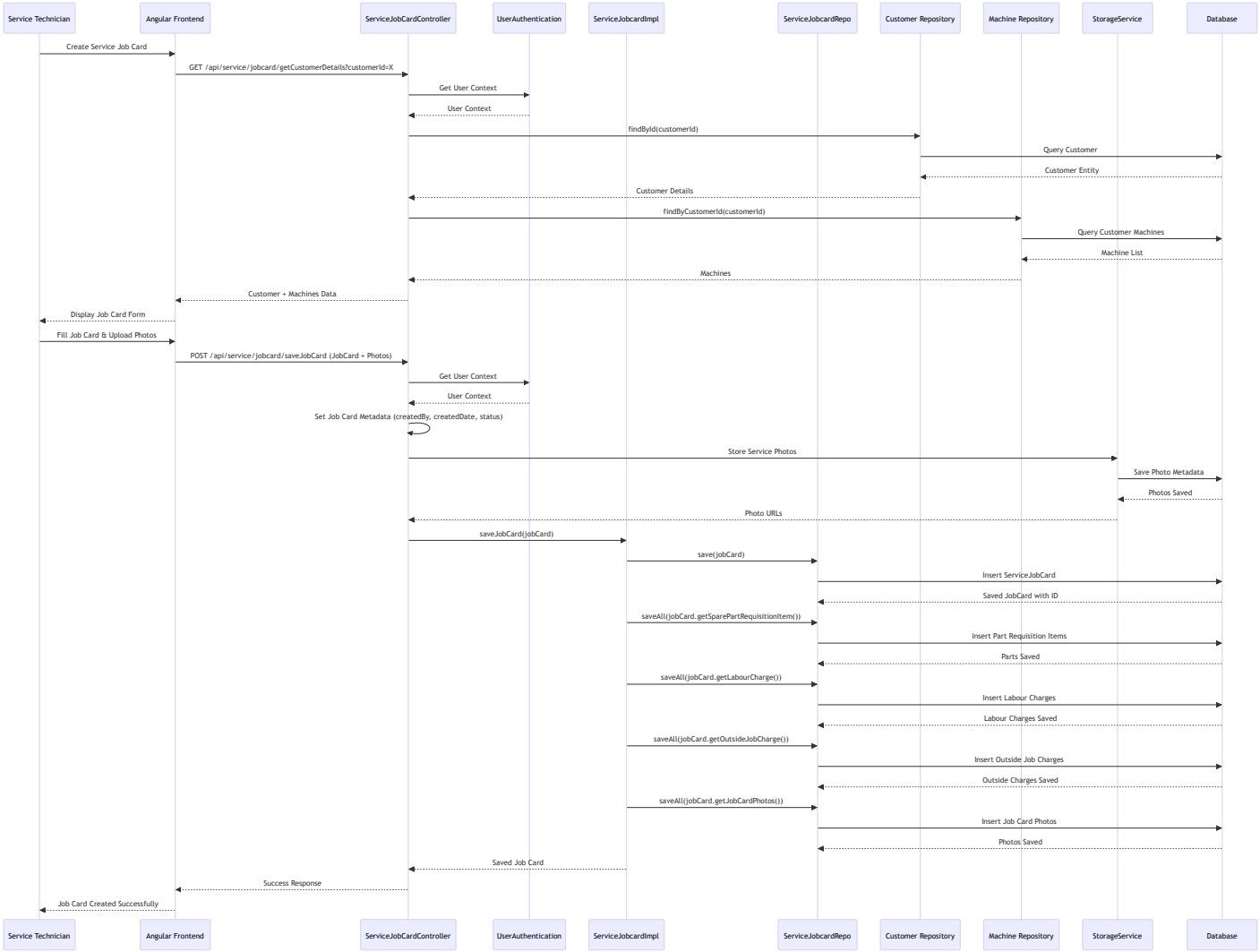
2. Warranty Claim Request (WCR) Flow



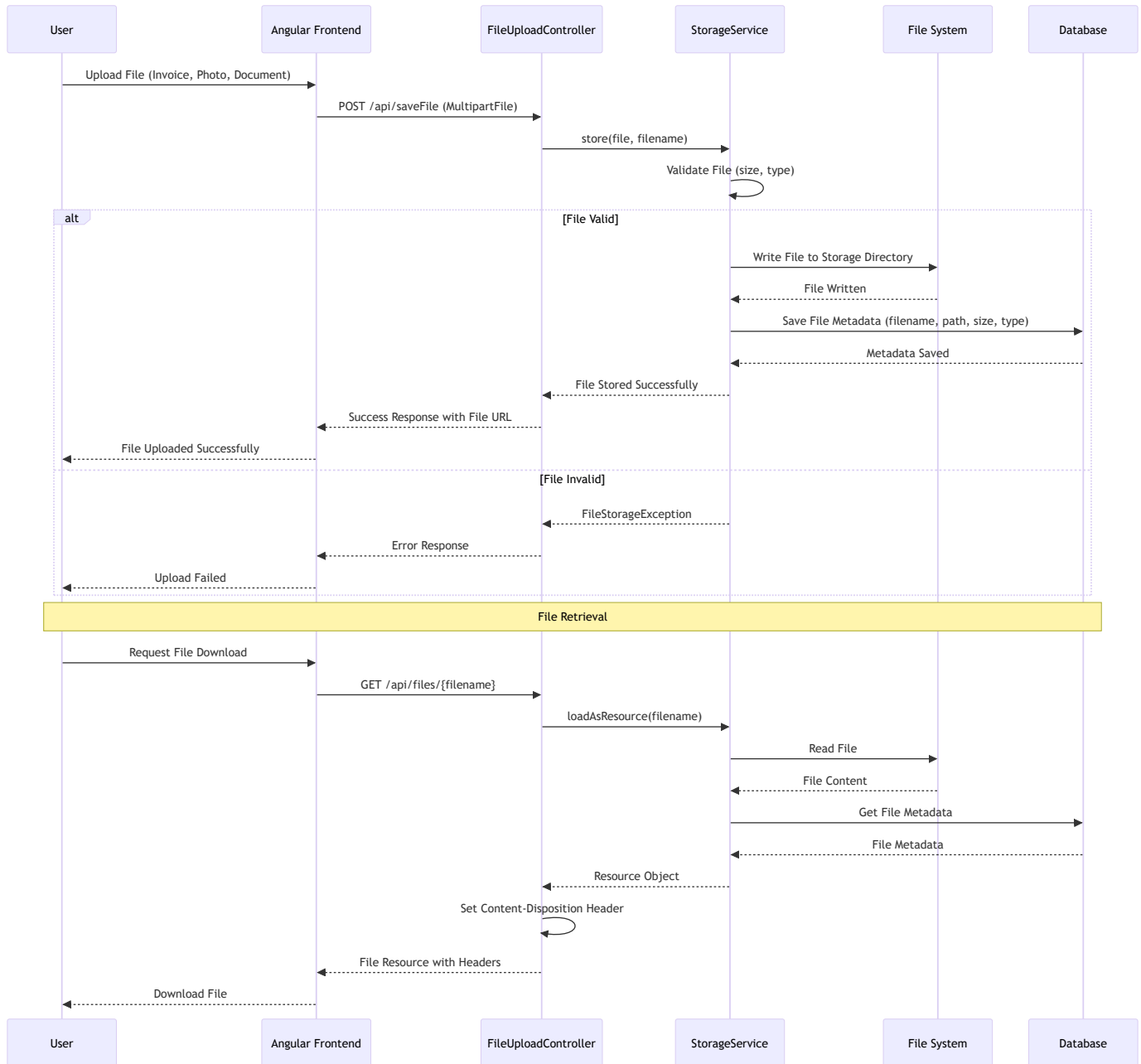
3. Spare Parts Sales Order Flow



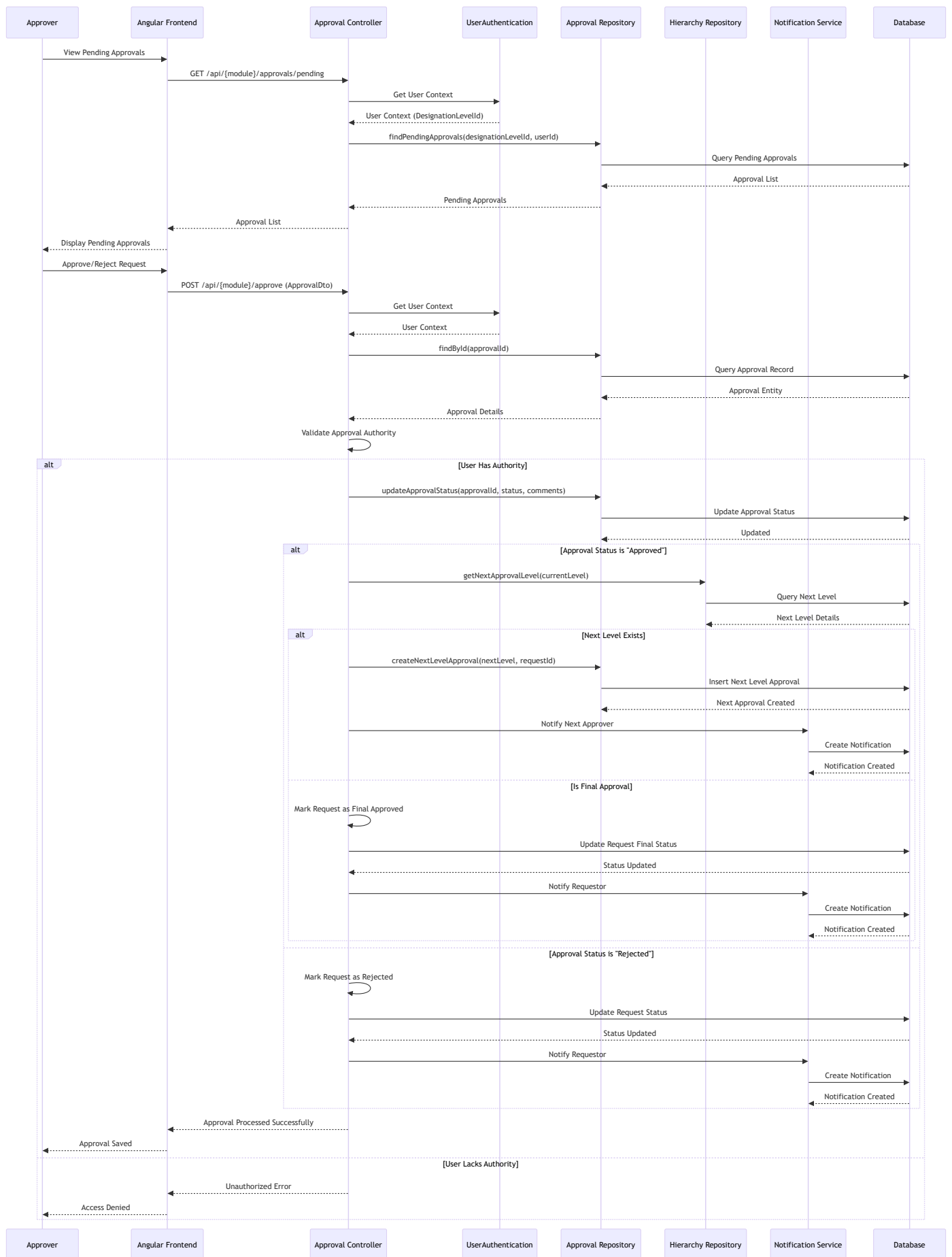
4. Service Job Card Creation Flow



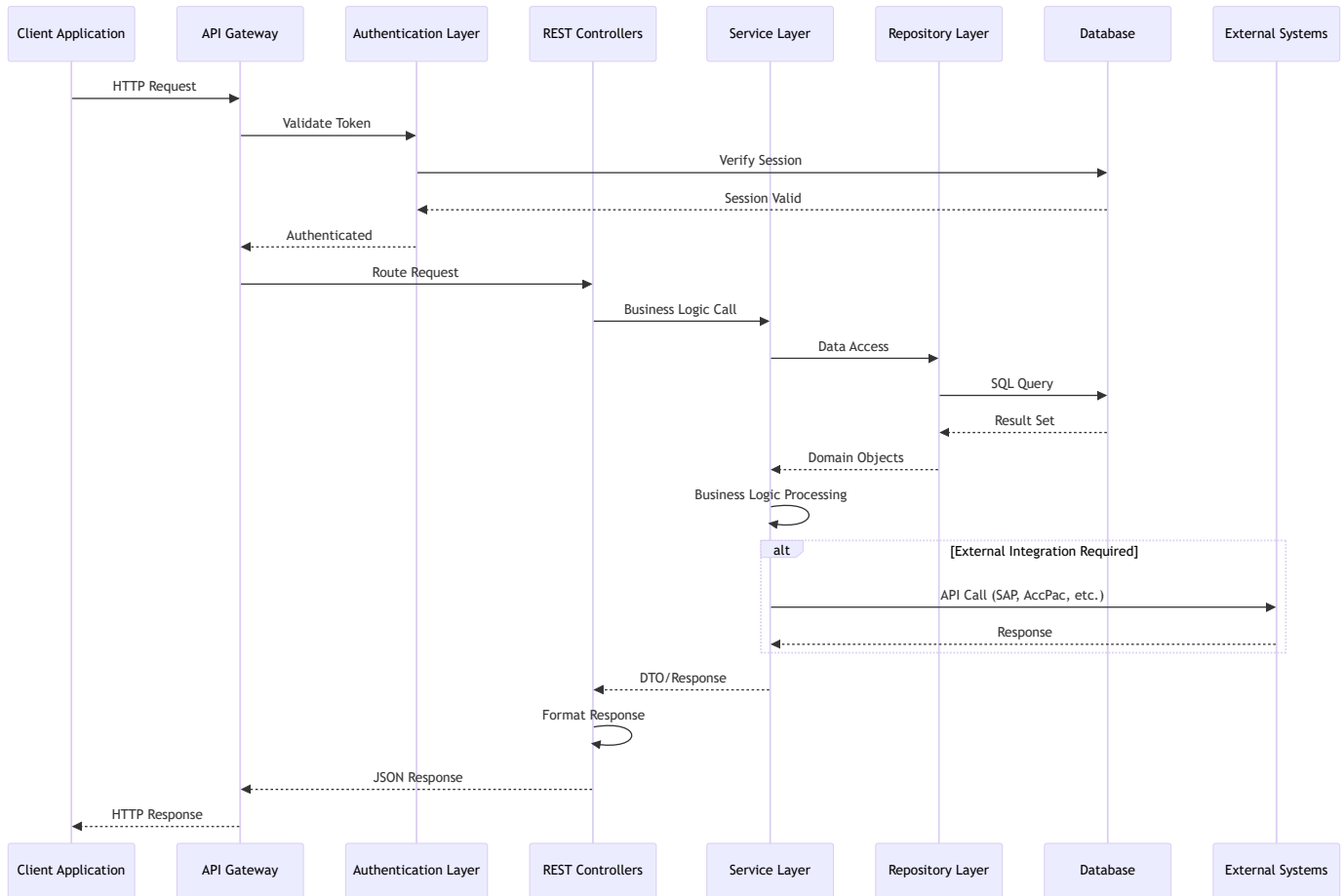
5. File Upload & Storage Flow



6. Approval Workflow Flow



System Architecture Overview



Notes

Key Components:

- **Controllers:** Handle HTTP requests/responses, input validation
- **Services:** Business logic, orchestration, transaction management
- **Repositories:** Data access layer, database operations
- **Authentication:** JWT-based authentication, user context management
- **Storage Service:** File upload/download management
- **Approval System:** Multi-level approval workflow

Common Patterns:

1. All requests go through authentication/authorization

2. User context (DealerId, BranchId) is injected via UserAuthentication
3. File uploads are handled by StorageService
4. Approvals follow hierarchical workflow
5. Database operations use JPA/Hibernate repositories

Error Handling:

- Global exception handler catches all exceptions
- ApiResponse wrapper for consistent response format
- Validation errors returned with appropriate HTTP status codes

Last Updated: December 2025