

Database Design Document (DBDD)

Development Team

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1. Scope

1.1 Identification

DBDD-001: Document Identification - The document **shall** be identified by the following information: - **Document Name:** [Document Name] - **Document Identifier:** [DBDD-001] - **Version:** 1.0 - **Classification:** [Unclassified/Classified Level]

1.2 Document Overview

DBDD-002: Document Purpose - The document **shall** describe the database design and structure - The document **shall** define data models and relationships - The document **shall** specify database schema and constraints

2. Referenced Documents

DBDD-003: Referenced Standards - MIL-STD-498: Software Development and Documentation - [Other applicable standards]

3. Database Overview

DBDD-004: System Description - The document **shall** provide an overview of the database system - The document **shall** describe the database management system (DBMS) - The document **shall** specify database version and configuration

4. Data Model

4.1 Conceptual Data Model

DBDD-005: Conceptual Design - The document **shall** describe the conceptual data model - The document **shall** define entities and their relationships - The document **shall** include entity-relationship diagrams

4.2 Logical Data Model

DBDD-006: Logical Design - The document **shall** describe the logical data model - The document **shall** define tables, columns, and data types - The document **shall** specify primary and foreign keys

4.3 Physical Data Model

DBDD-007: Physical Design - The document **shall** describe the physical data model - The document **shall** specify storage and indexing strategies - The document **shall** define partitioning and clustering

5. Database Schema

DBDD-008: Schema Definition - The document **shall** provide complete database schema - The document **shall** include table definitions and constraints - The document **shall** specify data validation rules

6. Data Dictionary

DBDD-009: Data Definitions - The document **shall** provide a comprehensive data dictionary - The document **shall** define all data elements and their meanings - The document **shall** specify data formats and constraints

7. Security and Access Control

DBDD-010: Security Measures - The document **shall** describe database security measures - The document **shall** define user roles and permissions - The document **shall** specify data encryption requirements

8. Performance Considerations

DBDD-011: Performance Optimization - The document **shall** describe performance optimization strategies - The document **shall** specify indexing requirements - The document **shall** include query optimization guidelines

9. Notes

- **DBDD:** Database Design Document
- **DBMS:** Database Management System