Financial Control - Architecture Document

This document provides an overview of the architecture and design decisions for the Financial Control system. The solution is built using .NET 8, C#, and follows Domain-Driven Design (DDD), Test-Driven Development (TDD), and SOLID principles. The main technologies used are MongoDB, Redis for caching, and AWS SQS for message queueing.

1. Solution Architecture

The solution consists of the following layers:

- API: Handles HTTP requests and routes them to the application layer.

- Application: Contains business logic, DTOs, and service handlers.

- Domain: Includes entities, repositories, and aggregates.

- Infrastructure: Implements repositories, caching, and external services.

2. Technologies Used

- .NET 8 and C#

- Docker and Docker Compose

- MongoDB for database storage

- Redis for caching

- AWS SQS for messaging

- xUnit for unit testing

3. System Diagram

System Architecture

Client

API Layer | Application Layer | Domain Layer | Infrastructure Layer

AWS SQS | MongoDB | Redis