System Analysis Documentation

System Analysis Documentation

This document provides a comprehensive overview of system components and their interactions with the environment.

It serves as a foundation for technical discussions and reviews prior to the development phase.

Language and Terminology

- All documentation must be written in English.
- Key business terms will be translated during the business analysis phase to ensure consistent terminology across the ecosystem.

Documentation Versioning and Delivery

- Documentation will be maintained and published on Confluence.
- Confluence's built-in versioning system will be used to track changes.
  - If needed: Additional revision table in page content (date, description of changes) with major milestones.

Component Description

Each microservice must include the following details:

- **Component Name**
- **Component Functional Description**
- **Business Module**
- **Required Infrastructure:**
  - Database (MSSQL)
  - Distributed Cache (Redis)
  - File Storage (Azure Storage Account)
- **Business Entities:**
  - Entity Name
  - Data Owner (Yes/No)
  - Persisted (Yes/No)

Note: Component definitions and descriptions may evolve during the analysis phase or due to development constraints.

System Behavior and Integration Flows

- **System Context Diagram**: Illustrates interactions between services.
- **Interactions Scope**:
  - **Exposing Falcon APIs to Bank Systems**:
    - API contract documentation (e.g., Swagger or tabular format) – provided by VSoft
    - Integration requirements (based on Business Requirements):
      - Frequency – defined by Bank
      - Volumetry – defined by VSoft
      - Latency – defined by VSoft
    - Reference to existing flow documentation
  - **Calling Bank Systems from Falcon**:
    - API contract documentation – provided by Bank
    - Integration requirements (based on Business Requirements):
      - Frequency – defined by VSoft
      - Volumetry – defined by Bank
      - Latency – defined by Bank
    - Reference to existing flow documentation
  - **Internal Falcon Component Interactions**:
    - Description of flows and related business entities
- **For Key, Complex Cross-Module (Cross-System) Use-Cases**:
  - Conceptual explanation or illustration (e.g., Diagrams)

Analysis Process and Review

- System analysis will be conducted iteratively and incrementally.
- Documentation will be updated continuously throughout the analysis phase.
- Regular meetings will be held to review architectural decisions and analysis progress.
- Feedback on analysis results should include the priority and criticality of proposed changes to support effective task prioritization.

Low-Level Design Documentation

This document details the internal workings of the system. It extends the system analysis documentation and is delivered alongside the source code.

Language and Terminology

- All documentation must be written in English

Documentation Versioning and Delivery

- Documentation will be delivered via GitHub
- Versioning will be applied using section headers
- Links to GitHub will be added to Confluence

System Behavior and Flows

- **Flow List:**
    - Includes interactions between Falcon components
    - Includes microservices and the UI
    - Includes references to contract documentation (e.g., Swagger)
- **For Key Multi-Service Flows**:
    - Sequence Diagrams
    - Activity Diagrams showing data flow between components

Data Model

- Database structure descriptions
- Database index maintenance
- Implemented mechanisms for:
    - Data retention
    - Data archiving