

Feeding Campaigns Management System - SRS

1. Introduction

This Software Requirements Specification (SRS) document describes the full functional and non-functional requirements for the Feeding Campaigns Management System. The system enables NGOs to manage feeding campaigns, donations, beneficiaries, and food distributions.

1.1 Purpose

The purpose of this document is to provide a complete description of features, constraints, and behaviors of the system from an engineering perspective.

1.2 Scope

The system will allow:

- Managing NGOs, branches, users, and roles.
- Managing campaigns with target meals and progress tracking.
- Handling monetary & food donations.
- Managing beneficiary families and vulnerability scoring.
- Recording meal distribution batches.
- Tracking inventory movements.

2. Overall Description

The system is built using:

- ASP.NET Core 8 Web API
- Entity Framework Core
- SQL Server
- React + Vite + TailwindCSS frontend
- JWT Authentication + Role-based Authorization

3. Functional Requirements

3.1 Authentication

- The system shall allow users to login using email and password.
- The system shall issue JWT tokens for authenticated users.
- Roles include: SystemAdmin, NgoAdmin, BranchManager, Volunteer, Donor.

3.2 Campaign Management

- Create and list campaigns.
- Update campaign status.
- Track meals prepared/distributed.

3.3 Donation Management

- Register monetary donations.
- Register food donations with itemized quantities.
- Create inventory inbound transactions from donations.

3.4 Beneficiary Families

- Register beneficiary families.
- Sort families by vulnerability score.

3.5 Distributions

- Record distribution batches.
- Track meals delivered per beneficiary family.

4. Non-Functional Requirements

- API response time < 2 seconds.
- Passwords stored as salted hashes.
- Responsive UI with TailwindCSS.
- Must support at least 10,000+ donation records efficiently.

5. System Constraints

- SQL Server required.
- HTTPS required for production.

