# Business Requirements Document (BRD)

**Project Title**: Inventory and Delivery Management System for Dairy Products
**Client**: Hatsun Agro Product Ltd
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**Date**: 03-04-2025

**1. Executive Summary**

The client, a dairy product manufacturing company with multiple plants and warehouses across the country, seeks to develop a centralized software solution to:

* Efficiently manage inventory of milk and ice-cream products
* Ensure the quickest delivery routes and fulfilment for customer orders

**2. Business Objectives**

* **Inventory Optimization**: Maintain optimal stock levels across all plants and warehouses.
* **Real-Time Tracking**: Enable visibility of product levels, expiry dates, and movement.
* **Delivery Efficiency**: Automate and optimize delivery scheduling to minimize time and cost.
* **Customer Satisfaction**: Ensure timely delivery with accurate order fulfilment.

**3. Scope of Work**

**In Scope**

* Centralized inventory management
* Order processing and fulfilment tracking
* Delivery route optimization (based on location, traffic, and availability)
* Integration with existing ERP or standalone functioning
* Mobile application for delivery staff
* Alerts for low stock, near expiry, delayed orders

**Out of Scope**

* Manufacturing process automation
* Accounting and HR modules (unless explicitly required)

**4. Key Features**

**Inventory Management**

* Stock management per warehouse and plant
* FIFO (First In First Out) handling for perishable products
* Barcode scanning for product tracking
* Expiry and batch management
* Inventory transfer between locations

**Order Management**

* Customer order capture (portal & mobile)
* Auto-allocation to nearest warehouse
* Order tracking & status updates

**Delivery Module**

* Route optimization using maps & real-time traffic
* Delivery personnel tracking
* Proof of delivery capture (digital signature/photo)
* Customer notification (SMS/Email)

**Reports & Dashboards**

* Daily inventory reports
* Delivery performance metrics
* Order fulfilment SLA adherence
* Stock ageing and expiry analysis

**5. Stakeholders**

| **Role** | **Responsibility** |
| --- | --- |
| Client Project Sponsor | Final decision-making, approvals |
| Operations Manager | Defines logistics requirements |
| IT Manager | Coordinates software integration |
| Development Team | Builds the solution |
| QA Team | Ensures quality of the product |

**6. Assumptions**

* Internet connectivity is available at all warehouses/plants.
* Delivery agents will use smartphones for app access.
* Data from existing systems will be available for migration if required.

**7. Constraints**

* Seasonal demand variations (Summer peak for ice-cream)
* Perishability of products requires fast delivery and accurate tracking
* Limited technical expertise in some warehouses

**8. Development Plan**

**Phase 1 – Requirement Gathering & Design (2 Weeks)**

* Stakeholder workshops
* Finalize system architecture and tech stack

**Phase 2 – Development (8 Weeks)**

* Inventory Management Module (3 Weeks)
* Order & Delivery Module (3 Weeks)
* Reporting & Notification System (2 Weeks)

**Phase 3 – Integration & Testing (3 Weeks)**

* ERP/Data migration if needed
* UAT with client teams

**Phase 4 – Deployment & Training (2 Weeks)**

* Production deployment
* Staff training and onboarding

**Phase 5 – Support & Maintenance (Ongoing)**

* 3 months post-deployment support

**9. Resource Plan**

| **Role** | **Count** | **Duration** | **Responsibility** |
| --- | --- | --- | --- |
| Project Manager | 1 | Full Project | Coordination, Reporting |
| Business Analyst | 1 | Phase 1–4 | Requirement gathering, client communication |
| Backend Developer | 2 | Phase 2–3 | API & database development |
| Frontend Developer | 2 | Phase 2–3 | UI for web and mobile |
| QA Engineer | 1 | Phase 3 | Testing and bug tracking |
| DevOps Engineer | 1 | Phase 3–4 | Deployment, CI/CD |
| Trainer | 1 | Phase 4 | Conducts user training |

**10. Estimated Budget**

A detailed cost estimate will be prepared based on technology choices and scope finalization. Initial ballpark:

* Development Cost: $45,000 – $60,000
* Infrastructure/Cloud: $500/month (approx.)
* Maintenance (Post Go-live): $1,000/month

**11. Success Criteria**

* Inventory discrepancy < 5%
* Delivery SLA adherence > 95%
* Uptime of system > 99.5%
* Positive feedback from delivery and warehouse users