A company is having manufacturing plants and warehouses in various parts of the country. They manufacture ice-cream and milk products. They want to build software to achieve two goals. - Manage the inventory - Quickest delivery to the customers

## Assignment 1:

1. Please make a BRD which can be presented to the client along with complete development

# Business Requirement Document (Inventory Management and Delivery Application)

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#### **1. Document Revision:**

Date	Version Number	Changes Made
26/12/2024	V1.1	Initial Draft By BA

05/01/2024	V1.2	Changes in the inventory management module as per the discussion with business team in second work shop
10/01/2024	V1.3	Delivery module changes as per the discussion with Business Team

# 2. Approvals:

Role	Name	Title	Signature	Date
Project Sponsor				
Business Owners/Executives				
Project Manager/Product Owner				
System Architect				
Development Lead				
User experience Lead				
Quality Lead				
Content Lead				

## 3. RACSI Chart:

# R-Responsible, A-Accountable, C-Consulted, S-Support, I-Informed, \* in the column – Ultimate signing authority for any changes

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										Reques	
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е	Position	*	Plan	RG	D	X	d)	g	ion	al	k
	Project	Ye									
	Sponsor	s	A	I	I	I	I	I	1	A	I
	Business										
	Owners/Execu	Ye									
	tives	s	A	I	I	I	I	I	С	A	A
	Product										
	Owner/PM	-	R	А	А	А	А	А	S	А	А

Business										
 Analysts	-	R	R	R	R	R	S	S	R	R
 IT Department (Developers, Architects, QA, DevOps)	-	1	I	с	R	R	R	R	С	1
 Warehouse Managers	Ye s	с	S	с	I	1	I	1	1	R
 Manufacturing Managers	Ye s	с	S	с	1	1	1	I	1	R
 Customer Support Team	Ye s	1	S	с	I	1	1	1	1	R
 Marketing & Sales Teams	-	1	S	с	1	1	I	1	1	R
 Operations & Supply Chain Managers	Ye s	С	s	с	1	1	1	1	1	R
 Customers	-	I	R	I	I	I	R	I	I	R
 Logistics & Delivery Partners	-	I	с	l	I	I	I	1	I	
 Regulatory Authorities	_	с	С	1	1	1	1	1	1	I
 Technology Partners (Cloud/Softwa re Vendors)	-		с	1	1	1	1	I	1	1

#### 4. Introduction:

#### 4.1 Business Goals:

Business goals of the company are stated below

- Efficient inventory management- Manage the products inventory
- Optimized delivery for quicker service- Provide fast delivery services to the customers

#### 4.2 Business Objective:

Following business objectives should meet to satisfy the business goals.

- Real-time stock tracking- stocks should be updated real time to track the availability and shortage
- Automated order processing- orders should process automatically for the quicker delivery
- Improved logistics and route optimization- an improved

## 4.3 Business Rule:

- FIFO (First-In-First-Out) stock movement
- Automatic reordering at threshold levels
- Prioritization based on delivery urgency

## 4.4 Background:

The company has multiple manufacturing plants and warehouses across the country, producing ice cream and milk products. The need for a robust system to handle inventory and optimize delivery times has emerged.

## 4.5 Project Objectives:

Develop and implement a software solution for inventory management and quick customer deliveries.

## 4.6 Project Scope:

Project scope is the core functionality to be implemented in CBS. In-scope items cover all the things related to this project. Anything which is not mentioned in the in-scope items are out of scope for this project and will require a different change request to proceed.

#### 4.6.1 In-Scope:

- Real-time inventory tracking
- Automated order fulfillment
- Route optimization for delivery
- Supplier integration

#### 4.6.2 Out-of-Scope:

- Accounting and finance management
- Human resource management

#### 5. Assumptions:

- Internet connectivity is stable across all warehouses.
- Delivery fleets are GPS-enabled.
- Integration with third-party logistics providers is feasible.

#### 6. Constraints:

- Budget limitations
- Compliance with food safety regulations
- Data security and privacy policies

#### 7. Risks:

# **Technological Risk:**

• System integration challenges with existing ERP

#### Skills Risk:

• Training needs for employees

#### **Political Risks:**

• Regulatory compliance changes

#### **Business Risks:**

• Competitor advancements

#### **Requirements Risks:**

• Changing business needs

#### Other Risks:

• Supply chain disruptions

#### 8. Business Process Overview:

Business process for both current and proposed systems are outlines below with visual representation of the flow.

#### 8.1 Legacy System (As-Is):

- Manual tracking of inventory
- Inefficient delivery route planning



#### 8.2 Proposed Recommendations (To-Be):

- Digital inventory management
- AI-based delivery route optimization



#### 9. Business Requirements:

All the high-level business requirements as part of the circular are given below.

Requirement ID	Description	Priority
BR-001	Real-time inventory tracking	High
BR-002	Automated order allocation	High
BR-003	Al-based delivery optimization	Medium

#### **10. Appendices:**

#### 10.1 List of Acronyms:

RG- Requirement Gathering BA- Business Analyst PM- Project Manager ERP: Enterprise Resource Planning GPS: Global Positioning System

#### 10.2 Glossary of Terms:

- Inventory Management: The process of tracking stock levels.
- Route Optimization: Finding the most efficient delivery route

#### **10.3 Related Documents**

- Inventory Management System Specification
- Delivery Optimization System Specification

#### 2. Prepare process flow diagram using your imagination:

Here's a high-level **Process Flow Diagram** for the **Inventory Management and Quick Delivery System** using my imagination:

# **Process Flow Overview**

The system handles two primary goals:

- Inventory Management Tracking stock levels, order processing, and warehouse operations.
- 2. Quick Delivery Optimizing logistics and ensuring timely order fulfillment.

# **Process Flow Steps**

#### 1. Order Placement

Trigger: Customer places an order via an online portal or mobile app.
Process: Order details are captured and sent to the system.

#### 2. Inventory Check & Allocation

Trigger: System verifies stock availability in nearest warehouse.
Process: If stock is available, it is allocated; otherwise, replenishment is requested.

#### 3. Order Processing & Packaging

Trigger: Order is confirmed for fulfillment.

**X Process:** Warehouse staff picks the items, packages them, and updates the system.

#### 4. Delivery Route Optimization

**Trigger:** Order is ready for dispatch.

**X** Process: Al-based route optimization selects the fastest delivery path.

#### 5. Order Dispatch & Tracking

Trigger: Logistics team assigns a vehicle and starts delivery.
Process: Customers receive real-time tracking updates.

#### 6. Order Delivery & Confirmation

Trigger: Order reaches the customer.
Process: Customer confirms receipt, and the system updates the delivery status.

#### 7. Feedback & Continuous Improvement

Trigger: Customer provides feedback.
Process: Insights are analyzed for process enhancements.

# **Creating the Diagram**

I will now generate a **Process Flow Diagram** to visually represent this workflow. Stay tuned!



Here's the **Process Flow Diagram** for the **Inventory Management and Quick Delivery System**. Let me know if you need any modifications or additional elements!