

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 and resource plan.
2. Prepare process flow diagram using your imagination.

Business Requirement Document (BRD)

Project Name – ICE CREAM and MILK PRODUCTS Manufacturing Management System

Prepared for – Country Delight

Prepared By- Sayali N. Sahare

Date - 09-10-2025

1] Document Revisions

Date	Version Number	Document Change
09-October 2025	0.1	Initial Draft
09-October 2025	0.2	Added business objective and problem statement
09-October 2025	0.3	Included stakeholder list and RACI matrix
09-October 2025	1.0	Drafted BRD and FRS sections
09-October 2025	1.1	Updated requirement list and added use case diagrams
09-October 2025	1.2	Added SRS and validation rules
09-October 2025	1.3	Included UI wireframes and screen mockups

2] Approvals

Role	Name	Title	Signature	Date
Project Sponsor	Ramesh Mehta	VP - Corporate Finance	R Mehta	09-October 2025
Business Owner	Sunita Agarwal	Head Tax & Compliance	S Agarwal	09-October 2025
Project Manager	Nikhil Sharma	Sr. IT Project Manager	N Sharma	09-October 2025
System Architect	Priya Iyer	Solution Architect	P Iyer	09-October 2025
Development Lead	Manish Raut	Tech Lead - Web Development	M Raut	09-October 2025

User Experience Lead	Anjali Verma	UX Designer	A Verma	09-October 2025
Quality Lead	Deepak Joshi	QA Manager	D Joshi	09-October 2025
Content Lead	Shweta Kulkarni	Documentation Specialist	S Kulkarni	09-October 2025

3] RACI Chart for this Document

Role	Responsible	Accountable	Consulted	Informed
Business Analyst	✓			
Project Manager		✓		✓
Developers	✓			
QA Team	✓			
Finance Team			✓	
Tax/Compliance Team			✓	
IT Support				✓

4] Introduction

This document describes the needs and development strategy for creating software that will manage inventory efficiently and enable the fastest distribution of ice cream and milk products across the company's production units and storage facilities.

4.1 – Business Goal

- Achieve 100% stock availability with minimal overstock or wastage.
- Reduce delivery turnaround time by a targeted percentage (e.g., 20%) within the first year.
- Implement a centralized system for end-to-end inventory and logistics visibility.
- Increase on-time delivery rate to improve customer trust and repeat orders.

- Reduce operational costs related to transportation and storage.
- Automate manual inventory tracking processes to improve accuracy and efficiency.
- Strengthen decision-making through data-driven reports and analytics.
- Ensure compliance and traceability of all food products from production to delivery.

4.2 – Business Objective

- Streamline inventory management processes across all manufacturing units and warehouse locations.
- Enhance delivery efficiency by optimizing routes and reducing transit time.
- Enable real-time visibility and tracking of stock levels and logistics activities.
- Boost customer satisfaction by ensuring fast and reliable deliveries.
- Lower operational expenses through smart route planning and inventory optimization.
- Maintain strict adherence to food safety protocols and quality standards throughout storage and distribution.

4.3 – Business Rule

- Inventory levels must trigger automatic alerts when stock reaches the minimum reorder threshold.
- Deliveries must be assigned to the nearest warehouse or plant to minimize travel time.
- Perishable items like ice cream and milk must be dispatched within a defined time window to maintain quality.
- Only authorized personnel can update stock quantities or modify delivery schedules.
- Delivery routes must be auto-optimized based on distance, traffic, and delivery priority.
- Quality check approval is mandatory before dispatching any product from the warehouse.
- System should prevent duplicate delivery scheduling for the same order.
- Any temperature breach during storage or transit must generate an immediate alert.
- Expired or damaged stock must not be counted as available inventory and should be flagged for disposal.

4.4-Bckground

- The company operates multiple manufacturing plants and warehouses for ice cream and milk products.
- There is a growing demand for faster delivery due to the perishable nature of dairy and frozen products.
- The company aims to enhance customer satisfaction by ensuring timely product availability and dispatch.
- Lack of real-time monitoring results in stockouts, overstocking, and product wastage.
- There is a need to comply with food safety standards, ensuring proper handling and timely distribution.

4.5-Project Objective

- Develop a centralized software system to automate inventory tracking across all plants and warehouses.
- Enable real-time visibility of stock levels and product movement to prevent shortages and wastage.
- Implement a smart logistics module to optimize delivery routes and reduce transportation time.
- Integrate quality and compliance checks to ensure safe and timely delivery of perishable products.
- Provide analytical dashboards and reporting tools to support data-driven decision-making.

4.6 – Project Scope

4.6.1 – In-scope Functionality

- Track and manage inventory in real-time across all plants and warehouses.
- Send automatic alerts when stock levels go below the set limit.
- Plan and optimize delivery routes using GPS and traffic data.
- Provide live delivery tracking for customers and administrators.
- Send order updates to customers via SMS and email.
- Allow secure access based on user roles and permissions.
- Monitor system performance and display data through dashboards.
- Protect data using encryption and regular backups.

4.6.2 -Out scope functionality

- Buying or setting up any hardware or IoT devices.
- Managing third-party logistics providers' operations.
- Connecting with external systems that are not listed in the project requirements.
- Developing a mobile app (unless later requested).
- Handling customer complaints or grievance portal.
- Managing detailed financial auditing or accounting processes.
- Tracking or evaluating employee performance.

5] Assumption

- All manufacturing plants and warehouses will have stable internet connectivity for real-time updates.
- Users will have basic technical knowledge to operate the system after training.
- Required data like stock levels, product categories, and delivery locations will be provided accurately by stakeholders.
- Existing ERP system has the necessary APIs or integration support.
- All users will follow the defined process for stock entry and dispatch updates to maintain data accuracy.
- GPS and traffic data services will be available and reliable for route optimization.
- Stakeholders will provide timely feedback and approvals during development phases.
- The organization will ensure compliance with food safety guidelines which the system will support, not enforce.

6]Constraints

1. Budget and resource limitations must be adhered to.
2. Project deadlines must be strictly followed.
3. The system must integrate seamlessly with existing ERP and third-party tools.
4. Data privacy and security standards must comply with regulatory laws.
5. Any significant changes in requirements post-approval may impact timelines and costs.
6. Hardware dependencies must be managed externally by the client.
7. Real-time system performance is dependent on stable internet and hardware support.

7]Risks

- **Technological Risks** – Risks related to system compatibility, tools, or technology failures.
- **Skills Risks** – Risks due to lack of required skills or training among users or team members.
- **Political Risks** – Risks from internal management decisions or stakeholder influence.
- **Business Risks** – Risks affecting business operations, customer satisfaction, or market value.
- **Requirements Risks** – Risks due to unclear, changing, or misunderstood requirements.
- **Other Risks** – Any additional risks not covered in the above categories.

8]Business Process Overview

8.1] Legacy System(AS-IS)

The current process involves partially manual tracking of stock levels and deliveries across multiple plants and warehouses. There is limited visibility into real-time stock, leading to delays, overstocking, stockouts, and inefficient route planning. Communication is decentralized, resulting in delayed decision-making and longer delivery times.

8.2]Proposed Recommendation (TO-BE)

The new system will centralize inventory data and introduce real-time tracking, automated alerts, and optimized delivery routing. Customer updates, role-based access, and analytics dashboards will be integrated to ensure timely deliveries, accurate stock visibility, and improved operational efficiency.

9]Business Requirement

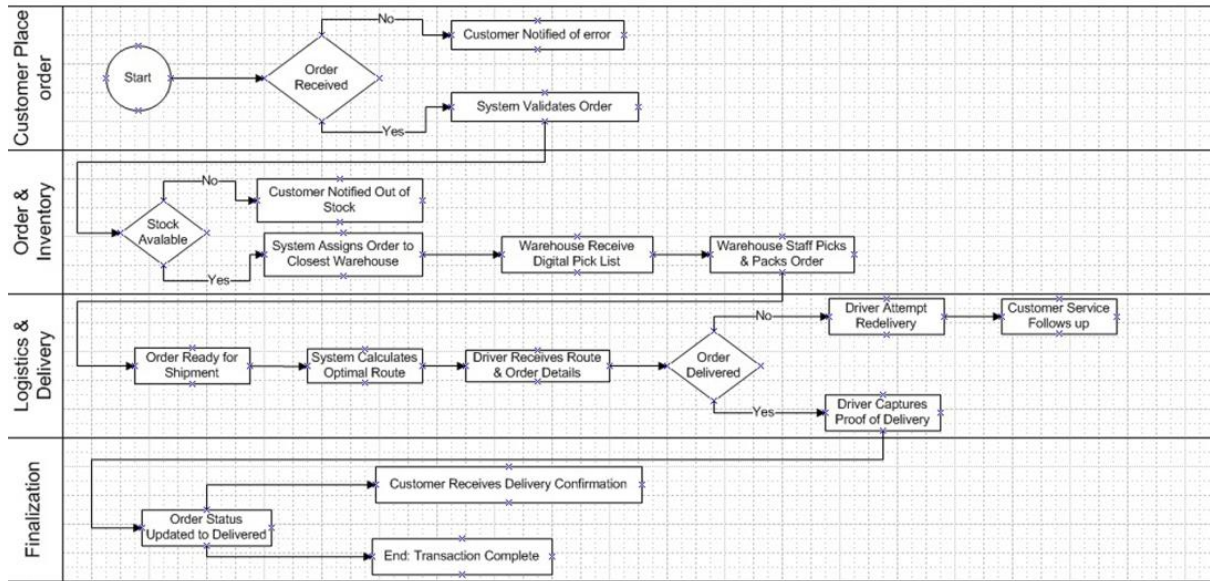
This section defines the system capabilities needed to support the business goals. It includes features such as real-time inventory monitoring, automated restocking alerts, GPS-enabled route optimization, live delivery tracking, secure access control, customer notifications, system reporting tools, and integration with ERP systems. These requirements ensure that the solution aligns with business needs and enhances delivery efficiency and customer satisfaction.

Sr. No.	Business Requirement	Functionality	Description	Priority
BR-01	Real-time Inventory Tracking	Inventory Management System	Track inventory levels in real-time across all warehouses and manufacturing plants.	High
BR-02	Automated Restocking Alerts	Inventory Alerts	Trigger notifications when stock reaches predefined thresholds.	High
BR-03	Multi-Warehouse View	Inventory Dashboard	Display all warehouse stock levels on a consolidated view.	Medium
BR-04	Dynamic Route Optimization	Delivery Optimization Engine	Optimize delivery routes using GPS, live traffic, and weather data.	High
BR-05	Live Order Status Updates	Customer Order Tracking	Provide customers with real-time order status updates via email/SMS.	High
BR-06	Delivery Tracking System	GPS-based Delivery Tracking	Track live location of deliveries for customers and admin users.	High
BR-07	Actionable Analytics and Reporting	Data Analytics Dashboard	Generate visual dashboards for stock levels, order status, delivery time, and overall performance.	Medium

BR-08	User Role Management	Role-Based Access Control	Manage user roles and permissions for Admin, Warehouse Managers, Delivery Agents, and Customers.	High
BR-09	System Alerts for Delays and Anomalies	Alert System	Automated alerts for delayed deliveries or system errors.	Medium
BR-10	Performance Metrics Reporting	Performance Reporting	Generate reports for management review of key metrics, including fulfillment time and order accuracy.	Medium
BR-11	Data Security	Encryption and Role-Based Access	Ensure all sensitive data is encrypted and accessible only to authorized users.	High
BR-12	Customer Notifications	Notification System	Automated customer notifications for order confirmations and estimated delivery times.	High
BR-13	Stock Transfer Management	Stock Transfer Module	Manage stock transfers between warehouses efficiently.	Medium
BR-14	Compliance with Regulatory Standards	Compliance Engine	Ensure that the system adheres to food safety	High

			and industry standards.	
BR-15	Disaster Recovery	Backup and Disaster Recovery System	Implement daily data backups and a disaster recovery plan for business continuity.	Medium
BR-16	Seamless ERP Integration	Integration with Existing ERP Systems	Facilitate data synchronization with the client's existing ERP solutions.	High
BR-17	Order Processing Verification	Order Management System	Prevent processing of orders when inventory is insufficient.	High
BR-18	Delivery Feedback Collection	Feedback and Rating System	Allow customers to provide feedback and ratings after delivery completion.	Low

PROCESS FLOW DIAGRAM



Assignment 2:

1] Write an introduction letter to a client introducing yourself as a business analyst in charge of working with the client and his team to start the business understanding process.

Subject: Introduction – Business Analyst Assigned to Your Project

Dear [Client Name],

I hope you are doing well.

My name is **Sayali Sahare** , and I have been assigned as the **Business Analyst** for your eCommerce platform enhancement project. I will be working closely with you and your team to understand your business processes, gather requirements, and ensure that the solution aligns with your goals of improving customer experience, streamlining operations, and boosting overall efficiency.

As part of the **business understanding phase**, I will be conducting detailed discussions to understand your current process (AS-IS), identify challenges, and work with you to define the desired future process (TO-BE). This will include user journey mapping, identifying key user roles such as customers, store admins, logistics teams, and analyzing important features like product browsing, cart management, order tracking, promotions, customer support, and mobile shopping experience.

My role will be to ensure clear communication between your team and the development team, translate business needs into functional requirements, and support you throughout the requirement validation and implementation phases.

I look forward to collaborating with you and ensuring a smooth and productive engagement.

Please feel free to share your availability so we can schedule our first discussion.

Warm regards,

Sayali Sahare

Business Analyst

LearningMate Solutions

8180074862

2. Prepare a brief BRD and SRS for a project- Horoscope or Ticketing system or online store.

BRD – Business Requirement Document (Ticketing System)

1] Project Overview

The purpose of this project is to build an online ticket booking system where users can browse available events/trips/movies, book tickets, make payments, and receive digital confirmations. Admins can manage ticket availability, pricing, schedules, and monitor bookings.

2] Business Objectives

- Allow users to view available shows/events/trips with schedule and seat availability.
- Provide a smooth ticket booking process with secure digital payments.
- Reduce manual booking efforts and errors.
- Enable admins to manage bookings, availability, and pricing from a dashboard.
- Improve customer satisfaction with real-time booking confirmation and notifications.

3] Scope (In-Scope)

- User registration and login.
- Display of events/shows/movies with date, time, price, and seat availability.
- Seat selection (if applicable) and ticket booking.
- Secure online payment and digital ticket generation.
- Email/SMS confirmation and ticket download.
- Admin module for managing listings, pricing, and bookings.

- Booking history and ticket cancellation option (if allowed by policy).

4. Out of Scope

- Offline booking desk operations.
- Third-party travel or event management integrations (unless specified).
- Advanced CRM and complaint handling.
- Physical ticket printing logistics.

5. Business Rules

- Tickets cannot be booked without payment confirmation.
- Each booking generates a unique ticket/booking ID.
- Booking cannot exceed available seat count.
- Cancellation and refund follow predefined policy.

4] Business Process Overview

4.1 Current Process (AS-IS)

Currently, ticket bookings may be done manually or through physical counters, which leads to delays, human errors, and limited accessibility.

4.2 Challenges

- Manual dependency and time delays.
- Lack of real-time seat updates.
- Risk of overbooking or double booking.
- No centralized booking management.

4.3 Proposed Process (TO-BE)

The new system will allow users to browse and book tickets online in real-time. Once payment is confirmed, the user receives a digital ticket instantly. Admins can view and manage all bookings from a single dashboard.

Example Flow:

User → Login → Browse Event → Select Seat → Make Payment → Receive Confirmation → View Booking History.

5]. Business Requirements

5.1 Functional Requirements – User Side

- User login, registration, and profile management.
- View events, schedules, and seat availability.
- Select event, seats, and make payment.
- Receive email/SMS confirmation with booking ID.
- Option to view booking history and cancel (if allowed).

5.2 Functional Requirements – Admin Side

- Add, edit, and delete event/show details.
- Set or update ticket pricing and availability.
- Manage bookings, cancellations, and refunds.
- Generate daily/weekly/monthly reports.
- Dashboard with key booking statistics.

5.3 Notification & Confirmation

- Automatic email/SMS for booking confirmation, cancellation, and refund updates.
- Admin notifications for new bookings and cancellations.

5.4 Reporting Requirements

- Total tickets booked per event.
- Revenue reports.
- Daily/weekly booking summary.
- Cancellation statistics.

6]. Business Rules

- Tickets cannot be booked without payment confirmation.
 - Each booking generates a unique ticket/booking ID.
 - Bookings cannot exceed available seat capacity.
 - Cancellation and refund follow predefined company policy.
 - Users must log in to access booking history.
 - Admin approval required for any refund initiation.
-

7. Assumptions and Dependencies

7.1 Assumptions

- Users have internet access and valid payment methods.
- Payment gateway integration will be functional.
- Admins have valid login credentials.

7.2 Dependencies

- Payment Gateway (e.g., Razorpay/Paytm).
 - SMS and Email APIs.
 - Hosting Server & Database availability.
 - Web browser compatibility.
-

8]. Risks

Technological Risks

- Server downtime or slow loading during high booking traffic may affect user experience.
- Integration issues with third-party payment gateway or messaging services.
- Risk of cyber-attacks or unauthorized access to user data and transactions.

Skills Risks

- Admin users or staff may not be fully trained to manage the dashboard or update listings.
- Lack of technical expertise may delay issue resolution or configuration updates.
- Delays may occur if the development team is not experienced with secure transaction systems.

Political Risks

- New government regulations on online transactions or digital taxation may impact operations.
- Legal rules around refund policies and consumer rights may change.
- Data privacy laws (like GDPR/Indian IT Act) may require additional compliance changes.

Business Risks

- Lower user adoption if the platform is not user-friendly or competitive.
- Financial loss due to failed bookings or refunds.
- Reputation risk if users face frequent payment failures or booking errors.

Requirements Risks

- Changes in business needs during development may impact timelines and deliverables.
- Misunderstanding between stakeholders and development team may cause rework.
- Scope creep due to unplanned feature requests might delay launch.

Other Risks

- Delay in receiving approval from higher management or stakeholders.
 - Unexpected dependency delays like late SMS/email API activation.
 - Customer dissatisfaction due to delayed customer support response.
-

9]. Project Constraints

9.1 Time Constraints

- Project delivery expected within 3–4 months.

9.2 Budget Constraints

- Limited budget; external integrations must be cost-effective.

9.3 Compliance Constraints

- Must comply with data privacy and payment security (PCI-DSS) standards.
-

SRS – Software Requirement Specification (Ticketing System)

1. Functional Requirements

User Features --

- Register, log in, and manage profile.
- Browse and filter available events/trips by date, category, location, etc.
- View schedule, pricing, and available seats.
- Select seat(s) or quantity and proceed to booking.
- Make secure payment and download ticket.
- Receive confirmation via SMS/email.
- View booking history and cancel if allowed.

Admin Features --

- Add/edit/delete event/show/trip listings.
- Set pricing, schedule, and seat availability.
- View and manage bookings.
- Download or view booking reports.
- Update booking status (confirmed/cancelled/completed).

2. Non-Functional Requirements

- System should be accessible 24/7 with at least 99% uptime.
- Ticket booking process should complete within 3–5 seconds.
- Payment process must be encrypted and secure.
- System must support peak traffic during special event releases.

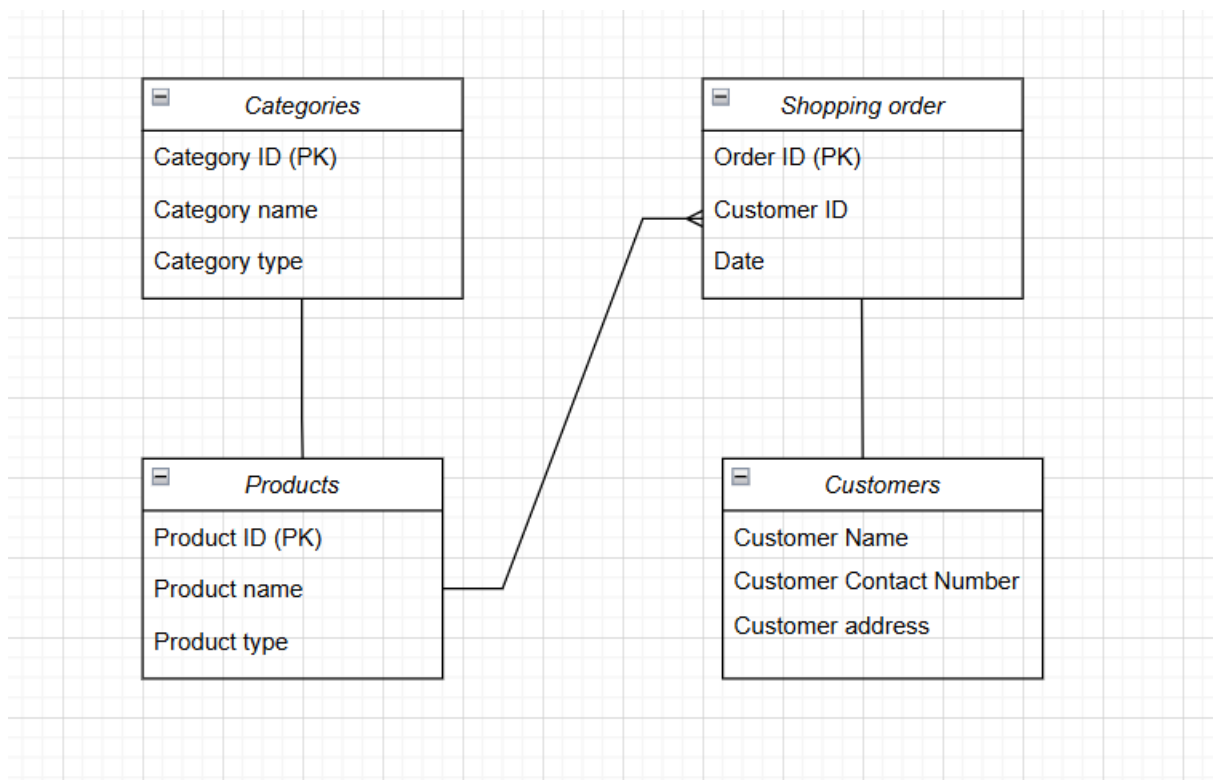
3. Assumptions

- Payment gateway API will be available and functional.
- Users must have internet access to book tickets.
- Event or travel schedule details will be provided by the client/admin.

4. Dependencies

- Payment gateway integration.
- SMS/Email service for notifications.
- Server hosting and database setup.

ERD



4. User story of shopping from ecommerce

Browsing and Finding Products

- As a new user, I want a clean and attractive homepage with popular products so I can explore easily.
 - As a returning user, I want to quickly see the products I viewed earlier for easy access.
 - As a user, I want filters like price, brand, size, color, etc., so I can find the right product faster.
 - As a user, I want clear product details, good images, and reviews so I can decide whether to buy.
 - As a user, I want a fast search bar with suggestions so I can find specific products quickly.
-

Adding to Cart and Checkout

- As a user, I want to add products to my cart with one click and see my total amount.
 - As a user, I want to change the quantity of items in my cart before buying.
 - As a guest user, I want to place an order without creating an account.
 - As a registered user, I want to use my saved addresses and payment details to checkout faster.
 - As a user, I want to clearly see shipping charges before confirming my order.
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Payment and Order Tracking

- As a user, I want multiple secure payment options to complete my purchase.
 - As a user, I want an instant confirmation email with order details after payment.
 - As a user, I want to track my order status from purchase to delivery.
 - As a user, I want to view my past orders and their details whenever needed.
-

Account Management

- As a user, I want to create an account to save my delivery and payment details.
 - As a user, I want to update my personal details anytime from my profile.
 - As a user, I want to subscribe to newsletters for sales and product updates.
 - As a user, I want to add products to a wishlist to buy them later.
-

Customer Support

- As a user, I want a live chat option to get quick help.
 - As a user, I want to raise a support request and get a response soon.
 - As a user, I want to find FAQs and product details easily to get answers myself.
-

Offers and Recommendations

- As a user, I want to see clear banners about discounts and offers.
 - As a user, I want to apply promo codes during checkout.
 - As a user, I want product suggestions based on what I browsed earlier.
-

Mobile Experience

- As a user, I want the online store to work smoothly on my mobile phone.
 - As a user, I want to browse, add to cart, and checkout easily from mobile.
 - As a user, I want a simple process to return or exchange products.
 - As a user, I want to write reviews and give ratings to products.
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Store Owner Needs

- As a store owner, I want to update product stock and pricing easily.
- As a store owner, I want to get reports about sales and customer behavior.

