<h1 style="text-align:center">MOCK – 4</h1>

**A Company is having Manufacturing Plants and Warehouse in various parts of the country .
they manufacture Ice-cream & 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 .

DOCUMENT REVISIONS

DATE	VERSION NUMBER	DOCUMENT CHANGES
01/03/25	1.0	Initial Draft
7/03/25	1.2	Updates per Review
13/03/25	1.3	Finalized Version

APPROVALS

ROLE	NAME	SIGNATURE	DATE
Project sponsor	Sanjana	Signature	01/03/25
Project owner	Jessica	Signature	03/03/25
IT Director	Sridhar	Signature	06/03/25
Business Analyst	Ashwadeepa	Signature	08/03/25

RACI MATRIX

TASKS	RESPONSIBLE (R)	ACCOUNTABLE (A)	CONSULTED (C)	INFORMED (I)
Requirement Gathering & Analysis	Business Analyst	Project Manager	Stakeholder	IT team
Development	Development team	IT Director	Business Analyst	Stakeholder
Testing	QA team	QA lead	Business Analyst	IT Director
Deployment	DevOps team	IT Director	Project Manager	End users

4. INTRODUCTION

4.1 BUSINESS GOALS

- Efficiently manage inventory across multiple locations.
- Ensure the quickest delivery of ice cream and milk products to customers.

4.2 BUSINESS OBJECTIVES

- Implement an automated inventory management system.

- Develop an intelligent delivery system optimizing routes and schedules.
- Integrate real-time tracking and reporting features.

4.3 BUSINESS RULES

- Inventory updates must be real-time.
- Orders should be fulfilled based on priority and delivery feasibility.
- Route optimization should consider weather, traffic, and product shelf life.

4.4 BACKGROUND

The company operates multiple manufacturing plants and warehouses across the country. Managing inventory and ensuring timely deliveries remain key challenges that need an advanced technological solution.

4.5 PROJECT OBJECTIVE

To develop a software solution that enables seamless inventory management and optimizes delivery processes to improve efficiency and customer satisfaction.

4.6 PROJECT SCOPE

4.6.1 IN SCOPE FUNCTIONALITY

- Real-time inventory tracking.
- Automated stock replenishment.
- Order management and fulfillment
- Delivery route optimization.
- Real-time tracking for customers.

4.6.2 OUT SCOPE FUNCTIONALITY

- Financial accounting.
- Customer service chatbot.
- Marketing automation.

5. ASSUMPTIONS

- All warehouses and plants will have internet connectivity.
- Users will be trained to use the new system.
- The system will integrate with existing ERP solutions.

6. CONSTRAINTS

- Budget limitations.
- Implementation within six months.
- Integration with legacy systems.

7. RISKS

- Resistance to change from staff.
- Potential system downtime during transition.
- Cost overruns due to unforeseen challenges.

8. BUSINESS PROCESS OVERVIEW

8.1 LEGACY SYSTEM (AS-IS)

- Manual inventory tracking.
- Paper-based order management.
- No real-time delivery tracking.

8.2 PROPOSED RECOMMENDATION (TO-BE)

- Automated inventory updates.
- AI-driven delivery scheduling.
- Real-time order tracking.

9. BUSINESS REQUIREMENTS

- The system must update inventory levels automatically.
- The system must provide real-time delivery tracking.
- The system should integrate with existing ERP solutions.
- The system must generate reports on stock levels, deliveries, and performance metrics.

10. APPENDICES

10.1 LIST OF ACRONYMS

- ERP: Enterprise Resource Planning
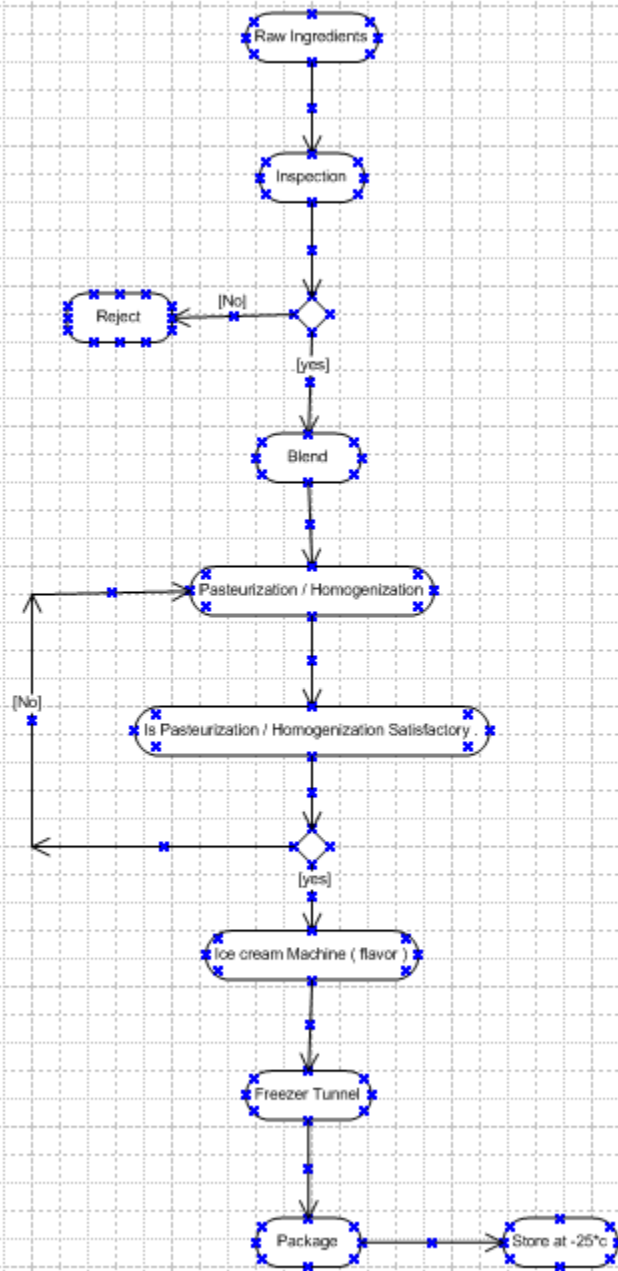- AI: Artificial Intelligence
- QA: Quality Assurance

10.2 GLOSSARY OF TERMS

- Inventory Management: The process of overseeing stock levels and movement.
- Route Optimization: The process of determining the most efficient delivery paths.

10.3 RELATED DOCUMENTS

- Company Operations Manual
- IT Infrastructure Document
- ERP Integration Guidelines

2. Prepare a Process flow diagram using your Imagination

Raw Ingredients

Inspection

[No] → Reject

[yes]

Blend

Pasteurization / Homogenization

[No]

Is Pasteurization / Homogenization Satisfactory .

[yes]

Ice cream Machine (flavor)

Freezer Tunnel

Package → Store at -25°c

1. Write an Introduction Letter to client Introducing yourself as Business Analyst in change of working with the client and his team to start the understanding process .

Ashwadeepa
Business Analyst
Buy Nest
01/03/25
Shakeeb
Vijaya Dairy

Subject: Introduction as Business Analyst for Inventory & Delivery Management Software

Dear Shakeeb,

I hope this email finds you well. My name is Ashwadeepa, and I am pleased to introduce myself as the Business Analyst assigned to collaborate with you and your team on the development of your Inventory Management and Quick Delivery Optimization Software.
We understand that your company operates multiple manufacturing plants and warehouses across the country, specializing in ice cream and milk products. Our primary goal is to work closely with you to design and implement a solution that enhances inventory management efficiency and ensures the fastest possible delivery to customers.
To kick-start this process, I would like to schedule an initial discussion where we can gather detailed requirements, understand your current operations, and align on project expectations. Please let me know a convenient time for this meeting.
I look forward to working with you and your team to deliver a solution that meets your business needs. Should you have any questions or specific points you would like to address before our meeting, please feel free to reach out.
Looking forward to a successful collaboration.

Best regards,
Ashwadeepa
Business Analyst
Buy Nest

2. Prepare a Brief BRD & SRS for Project - Online store

BRD – Business Requirement Document

DOCUMENT REVISIONS

DATE	VERSION NUMBER	DOCUMENT CHANGES
01/03/25	1.0	Initial Draft
7/03/25	1.2	Updates per Review
13/03/25	1.3	Finalized Version

APPROVALS

ROLE	NAME	SIGNATURE	DATE
Project sponsor	Sanjana	Signature	01/03/25
Project owner	Jessica	Signature	03/03/25
IT Director	Sridhar	Signature	06/03/25
Business Analyst	Ashwadeepa	Signature	08/03/25

RACI MATRIX

TASKS	RESPONSIBLE (R)	ACCOUNTABLE (A)	CONSULTED (C)	INFORMED (I)
Requirement Gathering & Analysis	Business Analyst	Project Manager	Stakeholder	IT team
Development	Development team	IT Director	Business Analyst	Stakeholder
Testing	QA team	QA lead	Business Analyst	IT Director
Deployment	DevOps team	IT Director	Project Manager	End users

4. Introduction

4.1 Business Goals
- Efficiently manage inventory across multiple warehouses and manufacturing plants.
- Ensure the quickest delivery of ice cream and milk products to customers.

4.2 Business Objectives
- Real-time tracking of inventory across locations.
- Automated demand forecasting and restocking suggestions.
- Optimization of delivery routes for minimal transit time.
- Integration of customer ordering and fulfillment process.

4.3 Business Rules
- Inventory updates must be in real-time.
- Customer orders should be fulfilled from the nearest warehouse.

- Expiry date tracking for perishable items is mandatory.
- System should support bulk and individual orders.

4.4 Background
The company operates manufacturing plants and warehouses across the country. Currently, inventory management and delivery are done manually, leading to inefficiencies in stock handling and delayed deliveries. The new system aims to streamline these processes through automation and smart tracking.

4.5 Project Objective
To develop an online software platform that will manage inventory efficiently and ensure the quickest product delivery.

4.6 Project Scope

4.6.1 In-Scope Functionality
- Warehouse and inventory management.
- Order processing and fulfillment.
- Automated delivery routing and tracking.
- Real-time stock updates.
- Customer order tracking.
- Reporting and analytics.

4.6.2 Out of Scope Functionality
- Financial accounting and invoicing.
- Third-party logistics integration (Phase 2).
- Direct customer engagement modules.

5. Assumptions
- All warehouses and manufacturing plants will integrate with the new system.
- Internet connectivity is available at all locations.
- Employees will receive necessary training.

6. Constraints
- Budget limitations may affect scope.
- Legacy system integration challenges.
- Compliance with food safety regulations.

7. Risks
- System downtime affecting deliveries.
- Resistance to change from employees.
- Data accuracy issues.
- Regulatory compliance challenges.

8. Business Process Overview

8.1 Legacy System (As-Is)
- Manual inventory tracking.

- Paper-based order processing.
- Phone-based dispatch coordination.
- Delayed stock updates.

8.2 Proposed Recommendation (To-Be)
- Centralized digital inventory management.
- Automated order processing and fulfillment.
- AI-powered delivery route optimization.
- Real-time stock updates and notifications.

9. Business Requirements
- Ability to track inventory levels in real-time.
- Automated order allocation based on nearest warehouse availability.
- Route optimization for delivery vehicles.
- Expiry tracking and alerts for perishable items.
- Dashboard for order, stock, and delivery status monitoring.

10. Appendices

10.1 List of Acronyms
- ERP - Enterprise Resource Planning
- WMS- Warehouse Management System
- AI - Artificial Intelligence

10.2 Glossary of Terms
- Inventory Management: The process of tracking stock levels, orders, and deliveries.
- Order Fulfillment: The complete process of receiving, processing, and delivering orders.
- Route Optimization: The process of finding the most efficient delivery paths.

10.3 Related Documents
- Company Business Strategy Report
- IT Infrastructure Plan
- Logistics Optimization Study

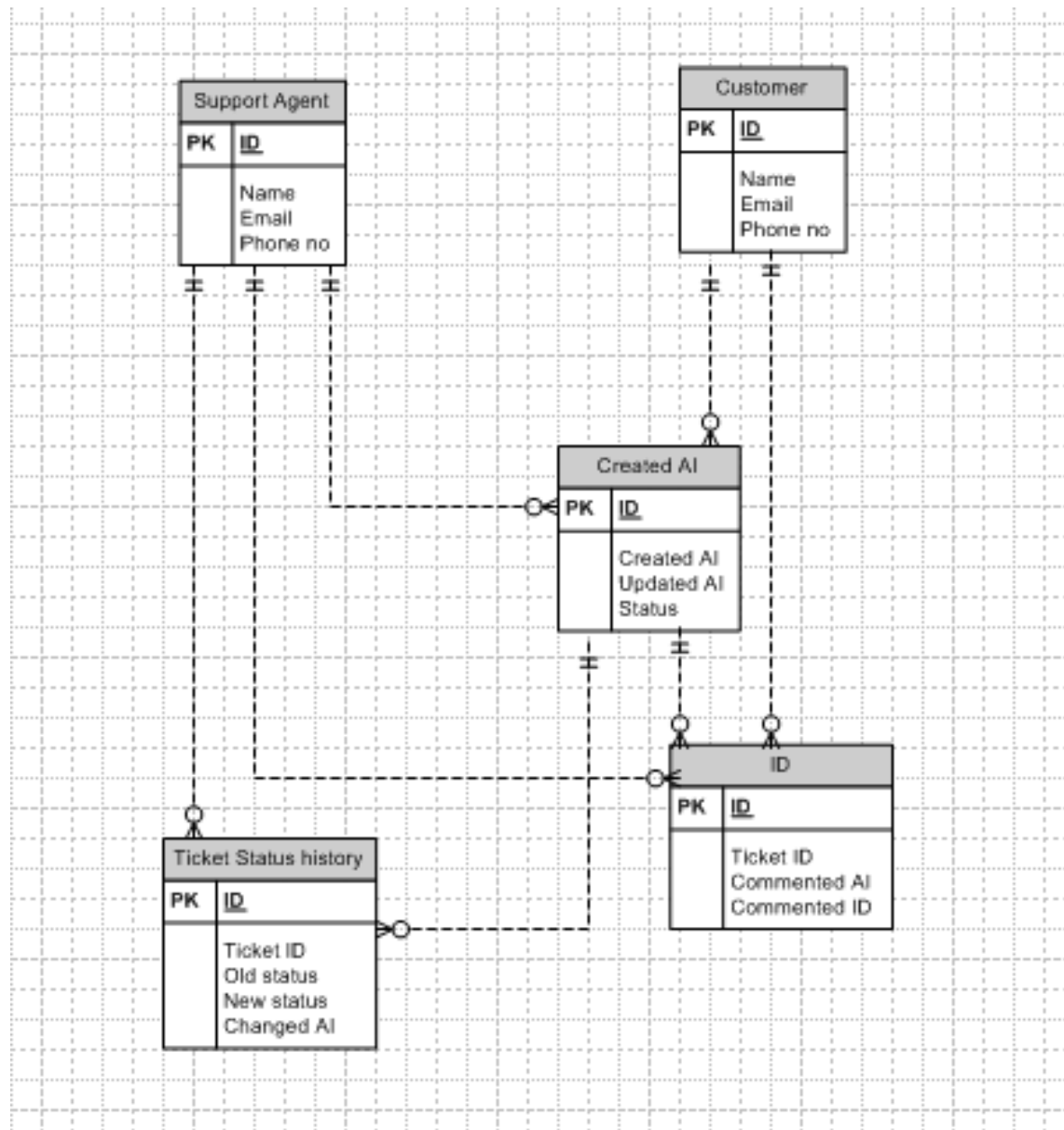**SRS – Solution Requirement Document**

FUNCTINAL REQUIREMENTS

Req ID	Req Name	Req Description	Priority
FR001	User Registration	Customers and staff should be able to register and log in.	High
FR002	Role-Based Access Control	Different access levels for admins, warehouse staff, and customers.	High
FR003	Product Catalog Management	List, update, and remove products with details.	High
FR004	Inventory Tracking	Real-time tracking of stock levels across warehouses.	High
FR005	Warehouse Management	Assign and manage inventory based on locations.	High
FR006	Order Management	Process customer orders with order tracking.	High
FR007	Automated Stock Replenishment	System should alert when stock is low and recommend restocking.	High
FR008	Expiry Date Tracking	Track perishable products and alert before expiry.	High
FR009	Search & Filter Products	Customers can search and filter products based on criteria.	Medium
FR010	Shopping Cart	Customers can add/remove items and checkout.	High
FR011	Multiple Payment Methods	Support for credit card, UPI, wallet, and cash on delivery.	High
FR012	Delivery Tracking	Real-time GPS tracking of delivery vehicles.	High
FR013	Delivery Route Optimization	Optimize delivery routes based on customer location.	High
FR014	Delivery Scheduling	Customers can choose preferred delivery slots.	Medium
FR015	Customer Support Chat	Provide live chat or chatbot for support.	Medium
FR016	Return & Refund Management	Customers can request returns and refunds with tracking.	Medium
FR017	Promotions & Discounts	Allow discounts, coupons, and promotions.	Medium
FR018	Reviews & Ratings	Customers can leave feedback on products.	Medium
FR019	Supplier Management	Manage suppliers for raw materials and inventory.	Low
FR020	Sales Reporting	Generate sales, order, and revenue reports.	High

FR021	Temperature Monitoring	Monitor temperature of storage units for perishable goods	High
FR022	Multi-Language Support	Provide language options for diverse customers	Low
FR023	GST & Tax Calculation	Automatic tax calculations based on region	High
FR024	Audit Logs	Track all transactions and activities	High
FR025	API Integration	Enable third-party logistics and ERP integration	Medium
FR026	Order Cancellation	Customers can cancel orders before dispatch	Medium
FR027	User Analytics	Track customer behavior for insights	Medium
FR028	Wishlist	Customers can save items for later purchase	Low
FR029	SMS & Email Notifications	Alerts for orders, deliveries, and promotions	High
FR030	Mobile App Compatibility	System should work seamlessly on mobile devices	High

NON - FUNCTINAL REQUIREMENTS

Req ID	Req Name	Req Description	Priority
NFR001	Performance Efficiency	System should handle 1000+ concurrent users	High
NFR002	System Availability	System should have 99.9% uptime	High
NFR003	Data Security	Secure data encryption and compliance with industry standards	High
NFR004	Response Time	Page loads should be within 2 seconds	High
NFR005	Scalability	System should scale as business grows	High
NFR006	Disaster Recovery	Automated backups and disaster recovery mechanisms	High
NFR007	Compliance	Must comply with food safety and digital commerce regulations	High
NFR008	Cross-Platform Support	System should be compatible with all browsers and OS	Medium
NFR009	Usability	Intuitive UI/UX design for ease of use	High
NFR010	Logging & Monitoring	System logs should be maintained for troubleshooting	Medium

3. Make an ERD of Creating a Support Ticket / Ticketing Life Cycle .

Support Agent

PK	ID
	Name
	Email
	Phone no

Customer

PK	ID
	Name
	Email
	Phone no

Created AI

PK	ID
	Created AI
	Updated AI
	Status

ID

PK	ID
	Ticket ID
	Commented AI
	Commented ID

Ticket Status history

PK	ID
	Ticket ID
	Old status
	New status
	Changed AI

4. User Story of Shopping from Ecommerce .

User story No : 1	Tasks : 2	Priority : High
Value statement : As a customer, I want to browse products by category so that I can quickly find items of interest.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Categories are displayed on the homepage and the product listing page. • Users can filter products within a selected category.		

User story No : 2	Tasks : 2	Priority : High
Value statement : As a customer, I want to search for products using a search bar so that I can find specific items quickly.		
BV : 500	**CP:** 8	
Acceptance Criteria : • The search bar is visible and functional on the homepage. • Search results are displayed within 2 seconds after submission.		

User story No : 3	Tasks : 3	Priority : High
Value statement : As a customer, I want to sort products based on price or popularity so that I can make an informed choice.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Sorting options are available on product listing pages. • Products are sorted correctly based on the selected criteria.		

User story No : 4	Tasks : 3	Priority : High
Value statement : As a customer, I want to see detailed information about a product so that I can decide whether to buy it.		
BV : 500	**CP:** 8	
Acceptance Criteria : • The product page includes images, price, description, and reviews. • "Add to Cart" and "Buy Now" buttons are visible and functional.		

User story No : 5	Tasks : 5	Priority : Medium
Value statement : As a customer, I want to leave a review for a product so that I can share my feedback with other users.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Customers can submit reviews and ratings after purchasing a product. • Reviews are displayed on the product details page.		

User story No : 6	Tasks : 3	Priority : High
Value statement : As a customer, I want to add products to my shopping cart so that I can purchase multiple items at once		
BV : 500	**CP:** 8	
Acceptance Criteria : • Items are added to the cart with correct quantity and pricing. • Users can view, update, or remove items from the cart.		

User story No : 7	Tasks : 2	Priority : High
Value statement : As a customer, I want to log in securely so that my personal information is protected.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Users can sign up, log in, and reset passwords securely. • Passwords are encrypted, and two-factor authentication is available		

User story No : 8	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to save items to a wishlist so that I can purchase them later.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can add, view, and remove items from the wishlist. • Wishlist items persist even after logout.		

User story No : 9	Tasks : 6	Priority : High
Value statement : As a customer, I want a secure and easy checkout process so that I can complete my purchase confidently.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Users can enter billing and shipping details securely. • Payment is processed securely using industry standards		

User story No : 10	Tasks : 5	Priority : High
Value statement : As a customer, I want to choose my preferred payment method so that I can complete my purchase conveniently.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Payment gateway supports credit card, PayPal, and digital wallets. • Transactions are processed within 5 seconds.		

User story No : 11	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to compare products side-by-side so that I can choose the best option.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can select up to three products to compare. • Key attributes are displayed for easy comparison.		

User story No : 12	Tasks : 3	Priority : High
Value statement : As a customer, I want to check out as a guest so that I can make a quick purchase without creating an account.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Users can complete the checkout process without signing in. • Guest users can track orders using email and order ID.		

User story No : 13	Tasks : 5	Priority : High
Value statement : As a customer, I want to track my orders so that I can know when they will arrive.		
BV : 500	**CP:** 8	
Acceptance Criteria : • Users can view the status of their orders in real-time. • Notifications are sent for key updates (e.g., shipped, out for delivery).		

User story No : 14	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to see related products so that I can discover complementary items.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Related products are displayed dynamically based on user behavior. • Clicking on a related product redirects to its details page.		

User story No : 15	Tasks : 4	Priority : Medium
Value statement : As a customer, I want to receive notifications about my order status so that I stay informed.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Notifications are sent for order confirmation, shipping, and delivery. • Users can opt-in or opt-out of notifications.		

User story No : 16	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to filter my search results so that I can refine my product search efficiently		
BV : 200	**CP:** 5	
Acceptance Criteria : • Filters for price range, brand, and ratings are available. • Results update dynamically based on selected filters.		

User story No : 17	Tasks : 3	Priority : Medium

Value statement :
As a customer,
I want to view my past orders so that I can reorder items easily.

BV : 200	CP: 5

Acceptance Criteria :
- Users can view a list of their completed orders.
- Clicking on an order shows detailed information, including items and total cost

User story No : 18	Tasks : 3	Priority : Medium

Value statement :
As a customer,
I want to earn rewards for my purchases so that I feel valued.

BV : 200	CP: 5

Acceptance Criteria :
- Users earn points for each purchase.
- Points can be redeemed for discounts during checkout.

User story No : 19	Tasks : 3	Priority : Low

Value statement :
As a global customer,
I want to view the site in my preferred language so that I can shop comfortably

BV : 100	CP: 3

Acceptance Criteria :
- Users can select their preferred language from a dropdown menu.
- All text content updates dynamically based on the selected language.

User story No : 20	Tasks : 6	Priority : High

Value statement :
As a customer,
I want to apply promo codes during checkout so that I can save money.

BV : 500	CP: 8

Acceptance Criteria :
- Users can enter promo codes at checkout.
- Discounts are applied correctly, and the updated total is displayed

User story No : 21	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to see related items frequently purchased with the product so that I can bundle my purchase		
BV : 200	**CP:** 5	
Acceptance Criteria : • Frequently bought together items are displayed dynamically on the product page. • Users can add all items to the cart with one click.		

User story No : 22	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to schedule a delivery time so that I can receive my order at a convenient time		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can select preferred delivery dates and time slots during checkout. • Delivery preferences are confirmed in the order summary		

User story No : 23	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to receive notifications when a product is back in stock so that I don't miss out.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can subscribe to back-in-stock alerts. • Notifications are sent via email or SMS when the product becomes available.		

User story No : 24	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to update my personal information so that my profile is accurate.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can update their name, address, and contact details. • Changes are saved and reflected immediately		

User story No : 25	Tasks : 4	Priority : Medium

Value statement :
As a customer,
I want to see the shipping cost before completing my purchase so that I know the total expense.

BV : 200	CP: 5

Acceptance Criteria :
- Shipping costs are calculated dynamically based on the delivery location.
- The total cost, including shipping, is displayed in the cart

User story No : 26	Tasks : 3	Priority : Medium

Value statement :
As an international customer,
I want to see prices in my local currency so that I can understand costs better.

BV : 200	CP: 5

Acceptance Criteria :
- Users can select their preferred currency from a dropdown menu.
- Prices and totals update dynamically based on the selected currency

User story No : 27	Tasks : 3	Priority : Low

Value statement :
As a customer,
I want to share products on social media so that I can recommend them to others

BV : 100	CP: 3

Acceptance Criteria :
- Product pages have social media sharing buttons (e.g., Facebook, Twitter, Instagram).
- Clicking a button opens a pre-filled post with the product link

User story No : 28	Tasks : 4	Priority : Medium

Value statement :
As a customer,
I want to refer my friends and earn rewards so that I feel incentivized to promote the site

BV : 200	CP: 5

Acceptance Criteria :
- Users receive unique referral codes.
- Referrals result in discounts or rewards for both parties

User story No : 29	Tasks : 3	Priority : Medium
Value statement : As a customer, I want personalized recommendations so that I can discover products I like.		
BV : 200	**CP:** 5	
Acceptance Criteria : • Recommendations are displayed based on browsing and purchase history. • Recommendations refresh dynamically as users interact with the site		

User story No : 30	Tasks : 3	Priority : Low
Value statement : As a customer, I want to read product-related guides so that I can make informed decisions		
BV : 100	**CP:** 3	
Acceptance Criteria : • Blogs are categorized and accessible from the homepage. • Users can search for specific topics within the blog section		

User story No : 31	Tasks : 3	Priority : Medium
Value statement : As a bulk buyer, I want to order large quantities of items easily so that I can manage my purchases efficiently		
BV : 200	**CP:** 5	
Acceptance Criteria : • Users can specify bulk quantities for products. • Discounts for bulk orders are applied automatically at checkout		

User story No : 32	Tasks : 4	Priority : Medium
Value statement : As a customer, I want instant help through live chat so that I can resolve my queries quickly		
BV : 200	**CP:** 5	
Acceptance Criteria : • Live chat is accessible from the footer or help section. • Responses are sent within 30 seconds of initiating the chat		

User story No : 33	Tasks : 2	Priority : Medium
Value statement : As a customer, I want to revisit products I recently viewed so that I can make decisions more easily		
BV : 200	**CP:** 5	
Acceptance Criteria : • Recently viewed products are displayed dynamically on the homepage or product listing page. • Items persist for the session or up to 24 hours		

User story No : 34	Tasks : 3	Priority : Low
Value statement : As a customer, I want to filter for eco-friendly products so that I can make environmentally conscious purchases		
BV : 100	**CP:** 3	
Acceptance Criteria : • An "eco-friendly" filter is available in product search. • Only products tagged as sustainable appear when the filter is applied		

User story No : 35	Tasks : 3	Priority : High
Value statement : As an admin, I want to manage product inventory efficiently so that stock levels are accurate		
BV : 500	**CP:** 8	
Acceptance Criteria : • Admins can view, add, update, or remove products. • Low-stock alerts are generated automatically		

User story No : 36	Tasks : 5	Priority : Low
Value statement : As a customer, I want to add gift-wrapping and a message to my order so that I can send personalized gift		
BV : 100	**CP:** 3	
Acceptance Criteria : • Users can select gift wrapping during checkout. • Users can enter a personalized message up to 250 characters		

User story No : 37	Tasks : 3	Priority : Medium
Value statement : As a customer, I want to subscribe to recurring purchases so that I don't have to reorder frequently used items manually		
BV : 200	**CP:** 5	
Acceptance Criteria : - Users can select subscription options (e.g., weekly, monthly). - Subscriptions can be paused, modified, or canceled at any time.		

User story No : 38	Tasks : 3	Priority : Low
Value statement : As a customer, I want location-specific product recommendations so that I can discover items relevant to my area.		
BV : 100	**CP:** 3	
Acceptance Criteria : - Recommendations are tailored based on the user's location. - Location data is obtained with consent and is updateable		

User story No : 39	Tasks : 4	Priority : Medium
Value statement : As a customer, I want to see an estimated delivery date so that I can plan accordingly.		
BV : 200	**CP:** 5	
Acceptance Criteria : - Delivery dates are displayed based on the shipping method and location. - Estimates are updated dynamically for different delivery options		

User story No : 40	Tasks : 3	Priority : High
Value statement : As a customer with accessibility needs, I want to use an inclusive interface so that I can shop comfortably.		
BV : 500	**CP:** 8	
Acceptance Criteria : Features include screen reader support, high-contrast mode, and keyboard navigation.		