**Business Analysis Case Study**

**by Tarun Kumar Deshmukh**

**Assignment – 1:**

**Question: 1 - Please make a BRD which can be presented to the client along with complete development and resource plan.**

**Answer-** Business Requirement Document - A Business Requirement Document (BRD) is a key document that outlines the business objectives, needs, and expectations of a project. It acts as a bridge between stakeholders and the technical team, ensuring that everyone understands what the project aims to achieve. The BRD typically includes the project's purpose, scope, functional and non-functional requirements, key stakeholders, and any constraints or assumptions. It provides clarity, alignment, and a basis for project planning, ensuring that the delivered solution meets the organization's business goals.

For current project, BRD is prepared below:

**Inventory and Delivery Management System for Dairy Products**

**BA\_Mock\_Case\_Study**

**Version 1.0**

**Mr. Tarun Kumar Deshmukh**

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**1. Document Revisions:**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version No** | **Document Changes** |
| 26/03/2025 | 1.0 | Initial Draft |
| 28/03/2025 | 2.0 | Added project objectives and success criteria |
| 01/04/2025 | 3.0 | Included stakeholder analysis and elicitation technique |
| 04/04/2025 | 4.0 | Completed functional requirements and requirement traceability matrix |
| 06/04/2025 | 5.0 | Updated priority and status in requirement traceability matrix |
| 09/04/2025 | 6.0 | Incorporated Appendices and finalized document |
| 11/04/2025 | 7.0 | Final review and formatting adjustments |

**2. Approvals:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Mr. Rama | Country Head | [Signature] | 09/04/2025 |
| Business Owner | Mr. Sachin | Head of region | [Signature] | 09/04/2025 |
| Project Manager | Mrs. Kalyani Singh | Project Manager | [Signature] | 09/04/2025 |
| System Architect | Mr. Jay Shetty | Sr. Solution Architect | [Signature] | 09/04/2025 |
| Development Lead | Mr. Jay Shetty | Sr. Java Developer | [Signature] | 11/04/2025 |
| User Experience Lead | Ms. Richa Salve | Java Developer | [Signature] | 11/04/2025 |
| Quality Lead | Mr. Rohan Dubey | Automation Tester | [Signature] | 11/04/2025 |
| Content Lead | Mr. Tarun Deshmukh | Business Analyst | [Signature] | 11/04/2025 |

**3. RACI Chart for This Document:**

RACI Matrix – A RACI matrix is a project management tool used to define and clarify the roles and responsibilities of team members and stakeholders involved in a project. The RACI matrix helps prevent confusion, overlaps, or gaps in responsibilities, promoting clear communication and effective project execution. It is often presented as a table mapping tasks or deliverables against team roles.

Here ‘R’ stands for Responsible, ‘A’ stands for Accountable, ‘C’ stands for Consulted, ‘I’ stands for Informed and ‘NA’ stands for Not Applicable.

A yellow and black chart

AI-generated content may be incorrect.

**4. Introduction:**

**4.1 Business Goals**

The company operates manufacturing plants and warehouses across the country and specializes in producing ice cream and milk products. Given the perishable nature of these products, efficient inventory management and fast delivery are critical for ensuring product freshness, minimizing wastage, and enhancing customer satisfaction.

To address these challenges, the company aims to develop a comprehensive software solution that will help achieve the following business goals:

1. **Real-time Tracking of Inventory:**

* Maintain real-time visibility into stock levels at manufacturing plants, warehouses, and distribution centres.
* Track expiry dates to reduce spoilage of dairy and ice cream products.

1. **Automated Stock Replenishment:**

* Implement an automated stock replenishment system to prevent shortages and overstocking.
* Generate alerts when inventory falls below a predefined threshold.

1. **Production Planning Optimization:**

* Synchronize production schedules with demand forecasts to prevent excess inventory or shortages.
* Monitor raw material availability to ensure smooth production.

1. **Batch and Lot Tracking:**

* Ensure traceability of products from manufacturing to final delivery.
* Support product recalls in case of quality issues.

1. **Waste Reduction & Cost Optimization:**

* Minimize inventory wastage due to spoilage, mismanagement, or overstocking.
* Optimize storage conditions (temperature, humidity) for perishable goods.

1. **Optimized Route Planning:**

* Implement AI-driven route optimization algorithms for fastest and most cost-effective delivery.
* Consider traffic, weather, and road conditions for real-time delivery adjustments.

1. **Efficient Order Fulfilment:**

* Enable automatic order processing and allocation to the nearest warehouse for minimal delivery time.
* Prioritize urgent orders and manage bulk deliveries for retailers and distributors.

1. **Dynamic Warehouse Selection:**

* Identify the nearest warehouse with the required stock to fulfil customer orders efficiently.
* Implement a smart allocation system to distribute inventory based on regional demand.

1. **Live Tracking & ETA Notifications:**

* Provide real-time order tracking to customers via mobile apps or web portals.
* Notify customers of estimated delivery time (ETA) for better transparency.

1. **Integration with Third-party Logistics (3PL):**

* Seamless integration with logistics providers for faster last-mile delivery.
* Optimize partnerships with local delivery fleets to handle high-demand periods.

**4.2 Business Objectives**

In the current project, we have following business objectives to achieve:

**1. Optimize Inventory Management Across Manufacturing Plants & Warehouses**

* Implement a centralized inventory system to monitor stock levels of ice cream and milk products across multiple locations.
* Enable real-time inventory updates to prevent overstocking or stock shortages.

**2. Ensure the Quickest Delivery to Customers**

* Implement an AI-powered order management system to allocate the nearest warehouse for order fulfilment.
* Optimize route planning to ensure the fastest delivery using GPS and real-time traffic data.
* Integrate with third-party logistics (3PL) providers for last-mile delivery optimization.

**3. Enhance Customer Experience & Satisfaction**

* Provide customers with real-time tracking of their orders via SMS, email, or mobile apps.
* Introduce multiple delivery options (standard, express, scheduled delivery).

**4. Improve Operational Efficiency & Cost Reduction**

* Automate warehouse operations to streamline stock movement and order fulfilment
* Reduce manual effort by integrating barcode or RFID tracking for inventory.

**5. Scalability for Future Expansion**

* Design a flexible system that supports expansion to new cities or regions.
* Integrate with e-commerce platforms to allow direct online orders.

**4.3 Business Rules**

In the current project, we have following business rules to implement:

**1. Inventory Management Rules:**

These rules ensure proper stock tracking and control across manufacturing plants and warehouses.

* Every product (ice cream, milk products) must have a unique Stock Keeping Unit.
* Inventory must be updated in real-time after every manufacturing, shipment, and sale.
* The system must support FIFO (First In, First Out) for perishable items to prevent spoilage.
* If stock falls below the reorder threshold, an automatic restocking request is generated.
* Each product must have a batch number, expiry date, and manufacturing date.
* Any damaged or expired products must be automatically marked as non-saleable.
* Supplier performance should be monitored based on delivery time and quality of materials received.

**2. Order Management & Quickest Delivery Rules:**

These rules define how customer orders are processed and delivered efficiently.

* Customers must receive real-time order status updates (Order Placed → Processing → Out for Delivery → Delivered).
* Orders should be automatically assigned to the nearest warehouse with sufficient stock.
* The system should use AI-based route optimization to select the fastest delivery route.
* If an order is not delivered within the expected time, an automatic alert is sent to the operations team.
* Returns should be accepted only if the product is damaged, expired, or incorrect.
* Customers should be able to request a refund or replacement through the system.

**3. Warehouse & Logistics Management Rules:**

These rules define the operations of warehouses and delivery networks.

* Warehouses must follow a temperature-controlled storage policy for ice cream and dairy products.
* Orders must be fulfilled from the closest warehouse with sufficient stock.
* The company may use in-house delivery or third-party logistics (3PL).
* Drivers must be assigned orders based on real-time location tracking and availability.

**4. Customer & User Management Rules:**

These rules ensure smooth interactions between customers, suppliers, and internal teams.

* Customers should be able to place orders via web & mobile apps.
* Order confirmation must be sent via SMS/email notifications.
* Only authorized users should be able to access warehouse stock levels and reports.
* Warehouse managers can approve restocking requests.

**5. Reporting & Analytics Rules:**

These rules govern performance tracking and data-driven decision-making.

* The system should generate daily, weekly, and monthly reports on Inventory turnover, Order fulfilment rate, Supplier performance, Customer feedback & complaints.
* AI-driven predictive analytics should forecast demand spikes based on past trends.

**6. Compliance & Regulatory Rules:**

* The software must comply with food safety regulations (e.g., FSSAI, FDA).
* Sensitive customer data must be encrypted and follow data protection laws.

**4.4 Background**

The company is a leading manufacturer of ice cream and milk products, operating multiple manufacturing plants and warehouses across the country. It supplies products to retailers, distributors, supermarkets, and direct customers while maintaining a strong focus on quality, freshness, and timely delivery.

**Current Challenges:**

Some of the key challenges include:

**1️.** **Inventory Management Issues:**

* Difficulty in tracking stock levels in real-time across different locations (plants, warehouses, and distribution centres).
* Overstocking or understocking leading to wastage or lost sales opportunities.
* Inaccurate demand forecasting causing supply chain disruptions.

**2️.** **Delivery Challenges:**

* Lack of optimized routing algorithms results in delayed deliveries.
* High transportation costs due to inefficient scheduling and route planning.
* Difficulty in ensuring product quality due to the perishable nature of dairy products.

**3. Customer Expectations:**

* Customers expect quick deliveries, especially in urban areas with high demand.
* Retailers and supermarkets require timely restocking to avoid stockouts.

**Proposed Solution**

To address these challenges, the company aims to develop a comprehensive software solution that will:

1. Manage the inventory efficiently across all manufacturing plants and warehouses using real-time tracking and demand forecasting.
2. Optimize deliveries to ensure the quickest possible dispatch and minimize transportation costs while maintaining product freshness.

This system will integrate modern inventory management techniques and intelligent delivery algorithms to enhance efficiency, reduce waste, and improve customer satisfaction.

**4.5 Project Objectives**

In the current project, we have following project objectives to achieve:

**1. Efficient Inventory Management Across Multiple Locations:**

* Develop a centralized inventory system to track stock levels at manufacturing plants and warehouses in real time.
* Enable automated stock updates based on production, sales, and transfers between locations.
* Reduce inventory wastage by tracking expiration dates of perishable goods like ice cream and milk.
* Provide real-time stock visibility to ensure seamless production and order fulfilment.

**2. Optimized Order Processing & Fulfillment:**

* Implement an automated order processing system that integrates with the inventory module.
* Assign orders to the nearest warehouse based on stock availability and proximity to customers.
* Allow real-time tracking of order status from placement to delivery.
* Enable customers to modify/cancel orders based on availability and delivery timeframes.

**3. Quickest Delivery Mechanism for Perishable Products:**

* Develop a route optimization algorithm to minimize delivery time using Real-time traffic data, Weather conditions, Customer location & priority orders
* Integrate with third-party logistics (3PL) providers for on-demand deliveries when internal fleet is unavailable.
* Provide real-time tracking of delivery vehicles for customers and business stakeholders.
* Ensure temperature control compliance for perishable goods during transportation.

**4. Advanced Analytics & Reporting for Decision Making:**

* Provide dashboards & analytics to monitor sales trends, demand fluctuations, and inventory levels.
* Implement AI-based demand forecasting to avoid overstocking or stockouts.
* Generate customized reports for management, including Inventory turnover rates, Delivery performance metrics, Order fulfillment efficiency.

**5. Seamless Integration with Existing Systems & External Platforms:**

* Connect with e-commerce platforms for direct online orders and fulfillment.
* Enable API-based integrations with delivery service providers (e.g., FedEx, DHL) for logistics efficiency.

**6. Robust Security & Compliance Measures:**

* Implement role-based access control to restrict system access based on user roles.
* Ensure compliance with food safety regulations (FSSAI, FDA) for inventory storage and transport.
* Secure customer and business data using encryption & multi-factor authentication.

**4.6 Project Scope**

In the current project, we have following In Scope and Out Scope Functionality:

**4.6.1 In-Scope Functionality:**

1. **Stock Tracking & Management**

* Real-time stock tracking at warehouses and manufacturing plants
* Automated low-stock alerts and replenishment suggestions
* Batch tracking for perishable items (expiry date monitoring)

1. **Procurement & Supplier Management**

* Vendor and supplier database integration
* Automatic purchase order generation when stock is low

1. **Warehouse Management**

* Multi-location warehouse management
* FIFO (First-In-First-Out) and LIFO (Last-In-First-Out) inventory methods
* Barcode & QR code scanning for quick stock updates

1. **Order Processing & Fulfilment**

* Order placement, tracking, and updates.
* Automatic warehouse selection based on stock availability and delivery proximity.

1. **Delivery Route Optimization**

* AI-powered route optimization for quickest delivery
* GPS tracking of delivery vehicles
* Estimated delivery time (ETA) notifications to customers

1. **Cold Chain Monitoring (For Ice Cream & Milk Products)**

* Temperature tracking during transit
* Alerts for temperature fluctuations to prevent product spoilage

1. **Customer Notification System**

* Automated SMS/Email alerts for order confirmation, dispatch, and delivery
* Live tracking of delivery status

1. **Inventory Reports**

* Daily/weekly stock movement reports
* Expiry date alerts for perishable items

1. **Delivery & Logistics Reports**

* Average delivery time per order
* Fuel consumption tracking for delivery vehicles

1. **Sales & Customer Insights**

* Best-selling products & demand forecasting
* Region-wise sales performance

**4.6.2 Out-of-Scope Functionality:**

The following functionalities are not part of this project scope and may be considered for future enhancements:

* The system will track inventory post-production but will not automate manufacturing processes.
* The system focuses on B2B inventory & delivery management, not direct customer sales through an app.
* Employee management (salaries, attendance) is out of scope.
* The system will optimize company-owned delivery routes but will not integrate third-party delivery services (e.g., Uber, DHL).
* While basic inventory cost tracking will be included, full-fledged accounting (profit/loss statements, tax compliance, etc.) is not in scope.

**5.Assumptions:**

For the current project, list of assumptions are following:

**1. Business and Operational Assumptions**

* The company operates multiple manufacturing plants and warehouses across different locations.
* The company distributes ice cream and milk products to retailers, supermarkets, and direct customers.
* The demand for products varies based on seasonality, location, and customer preferences.
* The storage conditions (e.g., refrigeration) must be monitored to ensure product quality.

**2. Inventory Management Assumptions**

* Warehouses maintain real-time stock levels, including expired and near-expiry products.
* There will be automated stock replenishment when inventory reaches a threshold.
* The system will allow batch tracking for perishable items.  
  Inventory data will be integrated with existing ERP systems.

**3. Delivery Optimization Assumptions**

* The company offers same-day or next-day delivery, depending on customer location.
* The system will use route optimization algorithms for efficient delivery.
* Delivery tracking will be enabled via GPS and real-time notifications.  
  Customers can choose between different delivery slots based on availability.
* The system will handle order prioritization based on product expiry and urgency.

**4. Technological Assumptions**

* The system will be a web-based application with mobile support for warehouse and delivery staff.
* It will integrate with third-party logistics APIs for tracking and route optimization.
* Barcode/QR code scanning will be implemented for warehouse operations.  
  The system will support multi-user access with different roles (admin, warehouse manager, driver, customer).

**5. Compliance & Security Assumptions**

* The software will comply with **food safety regulations** (e.g., temperature monitoring).
* Role-based access control (RBAC) will be implemented to **restrict data access**.

**6.Constraints:**

For the current project, the list of constraints are following:

* **Time Constraints** - The project must be completed within a predefined timeline, including the upgrade, migration, testing, and deployment phases and Seasonal demand fluctuations (e.g., summer peaks) requiring urgent system readiness before high-demand periods.
* **Budgetary Constraints** - Limited budget for software development, licensing, and infrastructure leads to cost-effective cloud-based or on-premises hosting solutions which results in limited resources for system maintenance and software upgrades.
* **Regulatory and Compliance Constraints** - Must comply with Food Safety and Standards Authority of India (FSSAI) or equivalent FDA regulations for perishable goods also compliance with taxation laws (GST, VAT, etc.) for inter-state inventory movement.
* **Technical Constraints** - Limited server capacity at some locations, requiring cloud or hybrid deployment and it must integrate with existing Warehouse Management System (WMS), Enterprise Resource Planning (ERP), and Delivery Management System which will provide real-time inventory updates with minimal delay and must support thousands of concurrent users.
* **Resource Constraints** - Availability of skilled personnel, including IT staff, testers, and trainers, may be limited.
* **User Constraints** - Warehouse and delivery staff may have limited technical knowledge and multi-language support to be provided for regional warehouse workers. Also Role-based access control to prevent unauthorized access.

**7.Risks:**

Based on the current project, the project is vulnerable to following risks:

**Technological Risks**

* + **System Integration Challenges** – If the new software needs to integrate with **existing ERP, WMS, or TMS**, compatibility issues may arise.
  + **Scalability Issues –** The system should handle large data volumes as demand fluctuates, especially during peak seasons (summer for ice cream).
  + **Real-Time Inventory Tracking –** IoT, RFID, or barcode scanning must sync accurately across warehouses and delivery fleets.
  + **Data Security & Cyber Threats –** Customer, order, and inventory data must be protected from data breaches.
  + **Cybersecurity Threats:** If the system crashes, it could cause delayed deliveries and stock mismanagement.

**Skills Risks**

* + **Lack of Skilled IT Resources –** Employees and warehouse staff may not be trained to handle the new system.
  + **Resistance to Change –** Workers may hesitate to adapt to new technology, affecting efficiency.
  + **Software Training Needs –** Employees must be trained to use inventory and delivery management systems effectively.

**Political Risks**

* + **Tax & Trade Regulations –** If the company operates across states, GST rules and logistics taxes can complicate billing.
  + **Import-Export Policies –** If raw materials are imported, government import duties or restrictions may affect costs.
  + **Food Safety Compliance –** The software must track expiry dates, batch numbers, and storage conditions to meet regulations.
  + **Labor Laws & Employment Rules** – Compliance with minimum wage laws, overtime policies, and employee rights must be ensured.

**Business Risks**

* + **Supply Chain Disruptions –** Unpredictable supplier delays can impact inventory levels and delivery schedules.
  + **Demand Forecasting Errors –** Poor sales predictions can lead to overstocking (wastage) or understocking (missed sales).
  + **High Logistics Costs –** If delivery routing is inefficient, it may increase fuel expenses and reduce profitability.

**Requirement Risks**

* + **Unclear Business Requirements –** If key stakeholders do not provide clear objectives, the software may not align with company needs.
  + **Frequent Requirement Changes –** Continuous changes can lead to scope creep, delays, and budget overruns.
  + **Poor Vendor Selection –** If an external vendor is chosen for development, their capabilities and track record must be assessed.

**Other Risks**

* + **Customer Satisfaction Risks –** If delivery delays or inventory mismatches occur, customers may switch to competitors.
  + **Disruptions Due to Pandemics/Natural Disasters –** Events like COVID-19, floods, or strikes can affect delivery logistics.
  + **Failure in Demand-Based Routing –** If the delivery software does not optimize routes efficiently, orders may not be fulfilled quickly.
  + **Inconsistent Data Across Departments –** If inventory and logistics teams are not aligned, errors in stock management may arise.

**8.Business Process Overview:**

**8.1 Legacy System (AS-IS)**

The company currently relies on a mix of **manual processes and outdated software** to manage **inventory and deliveries**. The existing system includes:

**1.** **Inventory Management System (IMS) – Partially Automated**

* Uses Excel sheets or an outdated ERP to track stock.
* Data entry is manual, leading to errors and discrepancies.
* No real-time tracking of inventory across multiple warehouses.
* Raw material usage is tracked manually, causing wastage and inefficiencies.

**2.** **Order Management System (OMS) – Manual & Semi-Digital**

* Orders are taken via phone calls, emails, or manually recorded in spreadsheets.
* No integration with inventory, leading to frequent out-of-stock situations.
* Lack of visibility into real-time order status and customer demand forecasting.

**3.** **Delivery & Logistics Management – Semi-Digital with Delays**

* Uses third-party logistics without dynamic route optimization.
* Deliveries are scheduled manually, leading to delays and inefficiencies.
* No real-time tracking of vehicles, making it difficult to ensure timely deliveries.
* The company lacks an automated dispatching system, which results in higher costs and customer dissatisfaction.

**4.** **Warehouse Management – Disconnected Operations**

* Warehouse stock levels are updated manually.
* Different locations have separate, unlinked inventory systems, making it hard to get a unified stock view.
* Inaccurate stock reports result in overstocking or understocking issues.

**5.** **Reporting & Analytics – Limited Insights**

* Data is stored in disconnected systems, making reporting time-consuming.
* No real-time demand forecasting to manage stock efficiently.
* Lack of historical data analysis for better decision-making.

**8.2 Proposed Recommendations (TO-BE):**

The proposed system will be a centralized, automated, and AI-driven solution to address the inefficiencies in inventory management and delivery operations. It will streamline supply chain workflows, enhance real-time visibility, and optimize order fulfilment to ensure the quickest delivery of ice cream and milk products.

**1. Centralized Inventory Management**

* + The new system will provide a unified inventory management solution integrating all manufacturing plants and warehouses.

**Real-Time Stock Updates:**

* + Live synchronization of stock levels across all locations to prevent discrepancies.
  + RFID/barcode scanning for automated stock entry and tracking.

**Automated Replenishment & Demand Forecasting:**

* + AI-driven predictive analytics will forecast demand and trigger automatic restocking.
  + System-generated alerts for low stock levels, expiry dates, and overstocking risks.

**Multi-Warehouse Optimization:**

* + Smart allocation of inventory based on customer proximity and demand patterns.

**2. Automated Order Processing & Fulfillment**

* + The system will streamline the order-taking process and ensure faster fulfillment.

**Online Order Management System (OMS):**

* + Orders from distributors, retailers, and direct customers will be received through a web portal or mobile app.
  + Automated order validation based on stock availability.

**Priority-Based Order Processing:**

* + Urgent orders will be identified using AI-based priority rules and processed faster.
  + Bulk and recurring orders will be auto-scheduled for fulfilment.

**Real-Time Order Tracking:**

* + Customers can track orders through live GPS tracking and receive estimated delivery times.

**Automated Invoicing & Payment Integration:**

* + System-generated invoices will be sent automatically upon order confirmation.
  + Integration with payment gateways for real-time order processing.

**3. AI-Powered Delivery & Route Optimization**

* + The system will ensure the quickest delivery through AI-based logistics optimization.

**AI-Based Route Optimization:**

* + Delivery routes will be optimized in real-time based on traffic, weather, and order urgency.
  + System will suggest the fastest and most cost-effective routes for delivery trucks.

**Cold Chain Monitoring:**

* + IoT-based temperature sensors will be installed in delivery trucks to ensure product quality.
  + Alerts will be generated in case of temperature deviations.

**Automated Fleet Management:**

* + Live GPS tracking of delivery trucks with predictive ETA calculations.
  + Dynamic re-routing in case of unexpected delays or vehicle breakdowns.

**Delivery Performance Metrics:**

* + System-generated reports on delivery times, order fulfillment rates, and delays for optimization.

**4. Real-Time Business Intelligence & Analytics**

* + The system will provide AI-driven dashboards and reporting tools to support decision-making.

**Live Dashboard for Inventory, Orders & Deliveries:**

* + Centralized dashboard displaying stock levels, pending orders, and live delivery tracking.

**Customizable Reports & Data Insights:**

* + Automated generation of reports on sales trends, warehouse efficiency, and distribution performance.

**Alerts & Notifications:**

* + Real-time alerts for low stock, delayed deliveries, temperature fluctuations, and compliance risks.

**5. Seamless Integration with Suppliers & Distributors**

* + The system will enable smooth collaboration between suppliers, warehouses, and distributors.

**Supplier Integration for Raw Materials:**

* + Automated purchase orders for milk, flavours, packaging materials, based on demand forecasts.

**Distributor Portal:**

* + Distributors can place orders, track shipments, and access order history through a dedicated online portal.

**6. Compliance & Regulatory Automation**

* + Ensuring food safety and compliance through automated documentation and tracking.

**Digital Audit Trail:**

* + Every inventory movement, quality check, and order transaction will be digitally recorded for audits.

**Automated Quality Control Checks:**

* + System will ensure compliance with food safety regulations (FSSAI, FDA, HACCP, etc.).
  + Alerts for quality non-conformance issues before dispatch.

**9.Business Requirements:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| BR0001 | Centralized Inventory Management | |  | | --- | | The system should maintain a centralized database for inventory across all manufacturing plants and warehouses. |  |  | | --- | |  | | Highest |
| BR0002 | |  | | --- | | Warehouse Stock Tracking |  |  | | --- | |  | | |  | | --- | | Track stock levels of ice cream and milk products in all warehouses. |  |  | | --- | |  | | High |
| BR0003 | |  | | --- | | Real-time Inventory Updates |  |  | | --- | |  | | |  | | --- | | Automatically update inventory records whenever stock is added, removed, or transferred. |  |  | | --- | |  | | Highest |
| BR0004 | |  | | --- | | Manufacturing Plant Stock Updates |  |  | | --- | |  | | |  | | --- | | Track stock levels at each manufacturing plant before shipping to warehouses. |  |  | | --- | |  | | Medium |
| BR0005 | Expiry Date Tracking | |  | | --- | | Maintain records of product expiration dates and send alerts for nearing expiry. |  |  | | --- | |  | | Highest |
| BR0006 | |  | | --- | | Batch and Lot Tracking |  |  | | --- | |  | | |  | | --- | | Enable tracking of batches and lots for quality control and recalls. |  |  | | --- | |  | | High |
| BR0007 | |  | | --- | | Automatic Reorder Alerts |  |  | | --- | |  | | |  | | --- | | Notify the procurement team when stock falls below a predefined threshold. |  |  | | --- | |  | | High |
| BR0008 | |  | | --- | | Demand Forecasting |  |  | | --- | |  | | |  | | --- | | Use historical sales data and AI to predict future inventory needs. |  |  | | --- | |  | | Medium |
| BR0009 | |  | | --- | | Supplier Management |  |  | | --- | |  | | |  | | --- | | Maintain a database of suppliers with their delivery timelines and reliability scores. |  |  | | --- | |  | | Highest |
| BR0010 | |  | | --- | | Procurement Workflow |  |  | | --- | |  | | |  | | --- | | Automate the process of ordering raw materials for manufacturing. |  |  | | --- | |  | | Highest |
| BR0011 | |  | | --- | | Quality Control Checks |  |  | | --- | |  | | |  | | --- | | Record and track results of quality control tests at manufacturing plants. |  |  | | --- | |  | | Highest |
| BR0012 | Product Packaging & Labeling | |  | | --- | | Ensure correct packaging and labeling before dispatch from manufacturing plants. |  |  | | --- | |  | | High |
| BR0013 | |  | | --- | | Order Processing System |  |  | | --- | |  | | |  | | --- | | Manage customer orders and route them to the nearest warehouse. |  |  | | --- | |  | | Medium |
| BR0014 | |  | | --- | | Customer Order Tracking |  |  | | --- | |  | | |  | | --- | | Allow customers to track their orders in real time. |  |  | | --- | |  | | Medium |
| BR0015 | |  | | --- | | Warehouse-to-Warehouse Transfers |  |  | | --- | |  | | |  | | --- | | Enable inventory transfers between warehouses based on demand. |  |  | | --- | |  | | Medium |
| BR0016 | |  | | --- | | Delivery Route Optimization |  |  | | --- | |  | | |  | | --- | | Suggest the fastest and most cost-effective delivery routes. |  |  | | --- | |  | | High |
| BR0017 | |  | | --- | | Delivery Partner Integration |  |  | | --- | |  | | Integrate with third-party delivery services (e.g., FedEx, DHL, local couriers). | Medium |
| BR0018 | Delivery Time Estimation | |  | | --- | | Provide accurate delivery time estimates to customers. |  |  | | --- | |  | | Highest |
| BR0019 | Cold Storage Monitoring | |  | | --- | | Monitor temperature in storage units and trigger alerts for deviations. |  |  | | --- | |  | | Medium |
| BR0020 | Order Cancellation & Refunds | |  | | --- | | Allow customers to cancel orders and process refunds automatically. |  |  | | --- | |  | | Medium |
| BR0021 | Multiple Payment Options | |  | | --- | | Accept payments via credit card, UPI, wallets, and cash on delivery. |  |  | | --- | |  | | High |
| BR0022 | |  | | --- | | Customer Notifications |  |  | | --- | |  | | |  | | --- | | Send notifications via email, SMS, or app about order status updates. |  |  | | --- | |  | | Medium |
| BR0023 | |  | | --- | | Mobile App for Drivers |  |  | | --- | |  | | |  | | --- | | Provide a mobile app for delivery drivers to view routes and update status. |  |  | | --- | |  | | High |
| BR0024 | Warehouse Capacity Planning | |  | | --- | | Optimize warehouse storage and utilization. |  |  | | --- | |  | | Highest |
| BR0025 | |  | | --- | | Integration with ERP Systems |  |  | | --- | |  | | |  | | --- | | Sync inventory and order details with existing ERP systems. |  |  | | --- | |  | | High |
| BR0026 | |  | | --- | | Multi-location Support |  |  | | --- | |  | | Enable tracking and management of multiple manufacturing plants and warehouses. | Medium |
| BR0027 | |  | | --- | | Fraud Detection in Orders |  |  | | --- | |  | | |  | | --- | | Implement AI-based fraud detection for suspicious order patterns. |  |  | | --- | |  | | Medium |
| BR0028 | |  | | --- | | Role-based Access Control |  |  | | --- | |  | | |  | | --- | | Restrict system access based on user roles (admin, warehouse staff, delivery agents, customers). |  |  | | --- | |  | | High |
| BR0029 | |  | | --- | | Analytics & Reporting |  |  | | --- | |  | | |  | | --- | | Provide detailed reports on sales, inventory trends, and delivery performance. |  |  | | --- | |  | | Medium |
| BR0030 | |  | | --- | | Barcode & QR Code Scanning |  |  | | --- | |  | | |  | | --- | | Use barcode/QR code scanning for easy stock updates and order fulfillment. |  |  | | --- | |  | | High |
| BR0031 | |  | | --- | | Returns Management |  |  | | --- | |  | | |  | | --- | | Handle product returns efficiently and update stock levels accordingly. |  |  | | --- | |  | | Medium |
| BR0032 | Customer Feedback System | |  | | --- | | Enable customers to provide feedback on product quality and delivery experience. |  |  | | --- | |  | | High |
| BR0033 | |  | | --- | | Emergency Delivery Option |  |  | | --- | |  | | |  | | --- | | Provide urgent delivery options for priority orders. |  |  | | --- | |  | | Medium |
| BR0034 | |  | | --- | | Compliance Tracking |  |  | | --- | |  | | |  | | --- | | Monitor compliance with service-level agreements for timely deliveries. |  |  | | --- | |  | | High |
| BR0035 | |  | | --- | | Multi-language Support |  |  | | --- | |  | | |  | | --- | | Support multiple languages for customer interface. |  |  | | --- | |  | | Medium |
| BR0036 | |  | | --- | | Offline Mode for Warehouses |  |  | | --- | |  | | |  | | --- | | Allow offline inventory management in case of network issues, syncing data later. |  |  | | --- | |  | | Medium |
| BR0037 | |  | | --- | | Subscription-based Orders |  |  | | --- | |  | | |  | | --- | | Enable customers to subscribe for recurring milk or ice-cream deliveries. |  |  | | --- | |  | | High |
| BR0038 | |  | | --- | | AI-based Order Recommendations |  |  | | --- | |  | | |  | | --- | | Recommend products to customers based on their purchase history. |  |  | | --- | |  | | Highest |
| BR0039 | |  | | --- | | Seasonal Demand Adjustment |  |  | | --- | |  | | |  | | --- | | Adjust stock levels based on seasonal demand trends. |  |  | | --- | |  | | High |
| BR0040 | |  | | --- | | Customer Loyalty Program |  |  | | --- | |  | | |  | | --- | | Implement a reward system for repeat customers. |  |  | | --- | |  | | Medium |

**10.Appendices**

**10.1 List of Acronyms**

* BOM- Bill of Materials
* BRD- Business Requirement Document
* BR- Business Requirement
* UX- User Experience
* SRS- Solution Requirement Specifications
* UI- User Interface
* FR – Functional Requirements
* ERP - Enterprise Resource Planning
* IoT - Internet of Things
* RFID – Radio Frequency Identification
* GPS – Global Positioning System

**10.2 Glossary of Terms**

**1. Inventory Management-** The process of tracking and managing raw materials, work-in-progress goods, and finished products to optimize stock levels and reduce wastage.

**2. Warehouse Management System (WMS)-** A software solution designed to manage and control warehouse operations, including receiving, storing, and dispatching inventory efficiently.

**3. Supply Chain Management (SCM)-** The end-to-end process of managing the flow of goods, from sourcing raw materials to delivering finished products to customers.

**4. Logistics & Distribution-** The process of planning, implementing, and controlling the efficient movement of goods from manufacturing plants to warehouses and customers.

**5. Quickest Delivery Optimization-** A feature in the software that calculates the fastest possible delivery route by considering real-time traffic, warehouse locations, and customer proximity.

**6. Order Management System (OMS)-** A system that handles order processing, tracking, and fulfilment to ensure timely and accurate deliveries to customers.

**7. Raw Materials-** Unprocessed goods such as milk, sugar, and flavors that are used in the production of ice cream and dairy products.

**8. Finished Goods-** Ice-cream and milk products that are manufactured, packaged, and ready for sale or distribution.

**9. Perishable Goods-** Products that have a short shelf life and require cold storage to maintain quality, such as ice cream and dairy products.

**10. Cold Chain Logistics-** A temperature-controlled supply chain process ensuring that perishable products maintain their quality and do not spoil during transportation and storage.

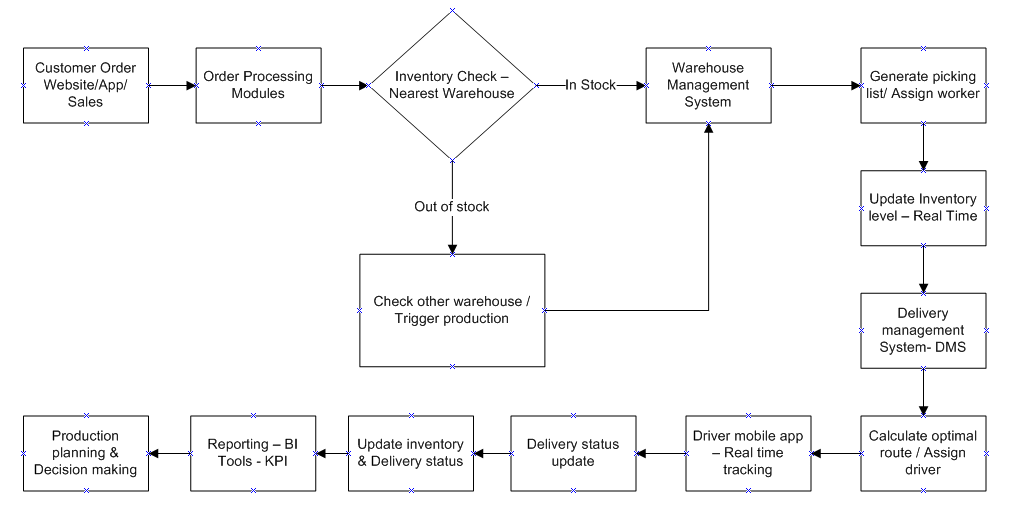
**10.3 Related Documents**

* Functional Specifications
* Technical Design Document
* Compliance and Regulatory documentation
* This Business Requirements Document (BRD) provides a comprehensive overview of the objectives, scope, requirements, and other relevant aspects of the project.

**Question: 2 – Prepare process flow diagram using your imagination.**

**Answer – Process Flow Diagram -** A Process Flow Diagram (PFD) is a visual representation of a process, showing sequential steps, inputs, outputs, and decision points involved in a system or workflow.

Process Flow Diagram for the above case has been illustrated below:

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**Assignment - 2**

**Question: 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.**

**Answer –** The Letter of Introduction to introduce myself as a Business Analyst can be drafted as below:

Tarun Deshmukh  
Business Analyst  
Sapphire Software Solutions  
[tarun.deshmukh@sapphire.com](mailto:tarun.deshmukh@sapphire.com) | +91-9589704470  
29 March 2025

Mr. Sachin  
Regional Head  
Geeta Dairy  
32, Lower Parel, Mumbai

Subject: Introduction as your Business Analyst for Inventory & Delivery Optimization Project

Dear Mr. Sachin,

I hope you are doing well. My name is Tarun Deshmukh, and I am a Business Analyst at Sapphire Software Solutions. I am excited to introduce myself as your primary point of contact for the Inventory and Delivery Optimization Software project, designed to streamline your operations across your manufacturing plants and warehouses.

We understand that managing perishable products like ice cream and dairy requires a highly efficient system to ensure optimal inventory control and fast delivery to customers. Our goal is to develop a software solution that helps you:

* Monitor and manage inventory levels across multiple locations efficiently.
* Reduce wastage by tracking product shelf life and demand trends.
* Optimize delivery routes for fastest order fulfilment, ensuring freshness and customer satisfaction.
* Enhance visibility of stock movements from manufacturing plants to warehouses and final distribution.

As we embark on this journey, I will be working closely with your team to:

* Analyse your current inventory and delivery processes to identify key challenges and opportunities.
* Gather detailed business requirements to design a solution tailored to your needs.
* Ensure smooth communication between your team and our technical experts throughout the project lifecycle.

I would love to schedule an initial discussion to better understand your business operations and key priorities. Please let me know a convenient time for a kick-off meeting.

Looking forward to collaborating with you and contributing to the success of your business.

Best regards,  
Tarun Deshmukh  
Business Analyst  
Sapphire Software Solutions

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

**Answer** – Business Requirement Document (BRD) and Solution Requirement Specification (SRS) for **Ticketing System** has been represented below:

**Business Requirement Document (BRD) for Ticketing System:**

**1. Introduction:**

**1.1 Purpose** - This document outlines the business requirements for the development of a Ticketing System to manage and track customer requests, support issues, and event bookings efficiently.

**1.2 Scope** - The Ticketing System will enable users to raise tickets, assign priorities, track progress, and resolve issues in a structured manner. It will support multiple ticket types, user roles, and reporting functionalities.

**2. Business Objectives:**

* Provide a centralized platform for managing tickets.
* Improve response and resolution time for customer issues.
* Enhance transparency and communication between users and support teams.
* Enable reporting and analytics for better decision-making.

**3. Requirements:**

**3.1 Functional Requirements:**

**3.1.1 User Roles**

* **Admin**: Manages users, configurations, and system settings.
* **Support Agent**: Assigns, updates, and resolves tickets.
* **End User**: Raises and tracks ticket status.

**3.1.2 Ticket Management**

* Users can create new tickets with issue details.
* Tickets can be categorized (Technical, Billing, General Inquiry, etc.).
* Status updates: Open, In Progress, Resolved, Closed.
* Ticket assignment to specific support agents or teams.
* SLA tracking and escalation process for overdue tickets.

**3.1.3 Notifications & Alerts**

* Email/SMS notifications for ticket updates.
* Automated reminders for pending tickets.
* Escalation alerts for overdue issues.

**3.1.4 Reporting & Analytics**

* Dashboard with ticket statistics.
* Reports on ticket resolution time and customer satisfaction.
* Agent performance tracking.

**3.2 Non-Functional Requirements:**

* **Scalability**: System should handle a large volume of tickets.
* **Security**: Role-based access control and data encryption.
* **Performance**: Fast response time for ticket retrieval and updates.

**4. Assumptions & Constraints:**

* The system will be web-based and accessible via desktop and mobile.
* Integration with email and third-party communication tools.
* Initial deployment will support only English; multilingual support may be added later.

**5. Success Criteria:**

* Reduction in ticket resolution time.
* Improved user satisfaction and feedback.
* Effective reporting for better decision-making.

**6. Conclusion:** This Ticketing System aims to streamline customer issue management, improve efficiency, and provide real-time tracking of support activities. A well-structured implementation will ensure enhanced user experience and operational productivity.

**Solution Requirements Specifications (SRS) for Ticketing System:**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the functional and non-functional requirements of the Ticketing System, which will be used for managing customer support tickets, event bookings, or internal issue tracking.

**1.2 Scope**

The system will allow users to create, update, and track tickets, while administrators can manage, assign, and resolve them. It will support notifications, reporting, and integration with third-party systems.

**1.3 Stakeholders**

* **Customers** – Users who create tickets.
* **Support Agents** – Users who resolve tickets.
* **Administrators** – Users who manage the system and configurations.

**1.4 Assumptions and Constraints**

* The system should be web-based with multi-platform support.
* Role-based access control will be implemented.
* The response time should not exceed 3 seconds for any request.

**2. Functional Requirements**

**2.1 User Management**

* Users should be able to register and log in using email and password.
* Role-based access control for Customers, Agents, and Admins.

**2.2 Ticket Management**

* Users can create tickets with a title, description, and priority.
* Users can attach files and add comments to tickets.
* Agents can update ticket status (Open, In Progress, Resolved, Closed).

**2.3 Notifications & Alerts**

* Email/SMS notifications for ticket updates.
* Push notifications for critical updates.

**2.4 Reporting & Analytics**

* Generate reports on ticket resolution time, agent performance, and ticket volume.
* Export reports in CSV, PDF formats.

**2.5 Integration & APIs**

* REST API support for third-party integrations.
* Integration with chat and CRM systems.

**3. Non-Functional Requirements**

**3.1 Performance Requirements**

* The system should handle 1000 concurrent users.
* Average response time should be under 3 seconds.

**3.2 Security Requirements**

* Encrypted data storage and secure authentication (OAuth 2.0, JWT).
* Audit logs for all changes in the system.

**3.3 Usability Requirements**

* Responsive design for mobile and web applications.
* Intuitive UI with minimal learning curve.

**4. System Architecture**

* Frontend: React.js / Angular
* Backend: Spring Boot / Node.js
* Database: PostgreSQL / MongoDB
* Hosting: AWS / Azure

**5. Acceptance Criteria**

* Users can create, update, and track tickets successfully.
* Notifications are triggered for ticket updates.
* Reports can be generated and exported.
* System remains stable under peak load conditions.

**Question – 3: Make an ERD of creating a support ticket/Ticketing life cycle.**

**Answer –** Ticketing Life Cycle – The Ticketing Life Cycle represents the stages a ticket goes through from creation to resolution in a Ticketing System. It ensures efficient issue tracking, response, and resolution while maintaining transparency.

**Stages of the Ticketing Life Cycle:**

**1️. Ticket Creation**

* A user (customer, employee, or system) raises a ticket.
* Ticket includes title, description, priority, category, and attachments (if needed).

**2️. Ticket Acknowledgment**

* The system generates a unique ticket ID.
* The user receives an acknowledgment via email/SMS.

**3️. Ticket Assignment**

* The ticket is assigned to a support agent/team based on Priority (High, Medium, Low), Category (IT, HR, Finance, etc.), Availability of agents

**4️. Ticket Processing & Investigation**

* The assigned agent starts working on the issue.
* The agent may communicate with the user for more details, perform troubleshooting steps, escalate if necessary.

**5️. Ticket Resolution**

* The issue is resolved, and a solution is documented.
* The resolution is updated in the system and shared with the user.

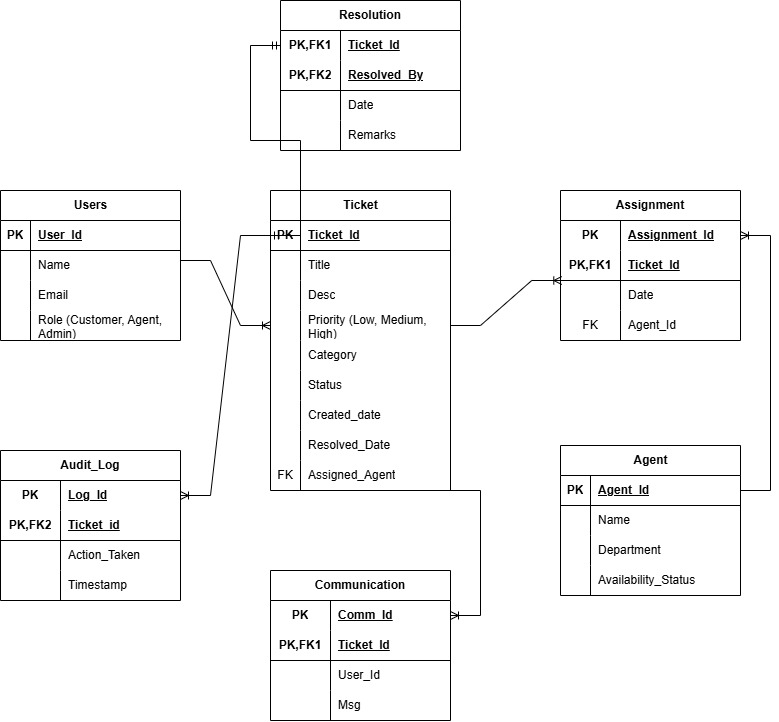
**6️. Ticket Closure**

* The user verifies the solution and confirms closure.
* If the user is not satisfied, the ticket may be reopened.

**7️. Post-Resolution Review**

* Performance metrics are analysed (resolution time, agent efficiency).
* The ticket is logged for audit and reporting purposes.

Entity Relationship Diagram (ERD) for Ticketing Life Cycle has been shown below-

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**Question: 3 - User story of shopping from ecommerce.**

**Answer –** User Story - A user story is a brief, user-focused description of a feature or requirement, written from the end user's perspective, typically following the format: "As a [user], I want [goal] so that [benefit]."

User Stories for shopping from e-commerce is listed below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| User Story No: 01 | Tasks:   |  | | --- | | User Registration |  |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to create an account so that I can save my details for future shopping. | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  User should be able to register with email and password. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| User Story No: 02 | Tasks: User Login | | Priority: High |
| Value statement:  As a user, I want to log in securely so that I can access my account | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  User should be able to log in with valid credentials | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| User Story No: 03 | Tasks: Reset Password | | Priority: Medium |
| Value statement:  As a user, I want to reset my password so that I can regain access if I forget it. | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  A password reset link is sent to the registered email. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| User Story No: 04 | Tasks: Browse Products | | Priority: High |
| Value statement:  As a user, I want to browse products by category so that I can explore available items. | | | |
| BV: 200 | | CP: 3 | |
| Acceptance criteria:  User can navigate product categories easily. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 05 | Tasks: Search Products   |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to search for products so that I can find what I need quickly. | | | |
| BV: 500 | | CP: 5 | |
| Acceptance criteria:  User can search by keywords, category, or brand. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 06 | Tasks: Filter & Sort Products.   |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to filter and sort products so that I can narrow down my choices. | | | |
| BV: 500 | | CP: 5 | |
| Acceptance criteria:  Filters and sorting options work correctly. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 07 | Tasks: View Product Details   |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to see detailed product information so that I can make an informed decision. | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Product page should display title, price, description, and reviews. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 08 | Tasks: Add to Cart   |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to add products to my cart so that I can purchase them later. | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  User should be able to add and remove items from the cart. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 09 | Tasks: Update Cart Quantity   |  | | --- | |  | | | Priority: Medium |
| Value statement:  As a user, I want to modify the quantity of items in my cart so that I can buy the right amount. | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  User should be able to update quantities easily. | | | |
| User Story No: 10 | Tasks: Remove from Cart   |  | | --- | |  | | | Priority: High |
| Value statement:  As a user, I want to remove items from my cart so that I only purchase what I need. | | | |
| BV: 500 | | CP: 2 | |
| Acceptance criteria:  User should be able to remove products from the cart. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 11 | Tasks: Save for Later   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | |  |  |  | | --- | | As a user, I want to save items for later so that I can buy them in the future. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  User should be able to add items to a wishlist. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 12 | Tasks: View Cart   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to review my cart before checkout so that I can verify my selections. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  User should be able to view all cart details. | | | |

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| --- | --- | --- | --- | --- | --- | --- |
| User Story No: 13 | Tasks:   |  | | --- | |  |  |  | | --- | | Guest Checkout |  |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a guest, I want to checkout without an account so that I can purchase quickly. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Guest checkout should work smoothly with minimal inputs. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 14 | Tasks: Login During Checkout   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a returning user, I want to log in during checkout so that I can access my saved details. | | | | |
| BV: 500 | | CP: 2 | |
| Acceptance criteria:  Users can log in and auto-fill their details. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 15 | Tasks: Address Management   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to add or update my shipping address so that my order is delivered correctly. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Users should be able to add, edit, and delete addresses. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 16 | Tasks: Payment Options   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to choose from multiple payment options so that I can pay conveniently. | | | | |
| BV: 500 | | CP: 2 | |
| Acceptance criteria:  Credit card, PayPal, and other methods should be available. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 17 | Tasks: Apply Coupon Codes   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to apply discount coupons so that I can get a better deal. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Coupons should be validated and applied correctly. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 18 | Tasks: Order Confirmation   |  | | --- | |  | | | Priority: High |
| Value statement:   |  |  |  | | --- | --- | --- | | |  | | --- | |  |  |  | | --- | | As a user, I want to receive an order confirmation so that I know my purchase was successful. | | | | | |
| BV: 500 | | CP: 5 | |
| Acceptance criteria:  Order summary should be displayed and emailed. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 19 | Tasks: Order Tracking   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to track my order so that I know when it will be delivered. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  Tracking link should be available in the user dashboard. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 20 | Tasks: Cancel Order.   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to cancel my order before it is shipped so that I have flexibility. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Users can cancel orders within a valid window. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 21 | Tasks: Return & Refund Request   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to request a return or refund so that I can return defective products. | | | | |
| BV: 500 | | CP: 5 | |
| Acceptance criteria:  A refund request should be processed within policy guidelines. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 22 | Tasks: Product Reviews & Ratings   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to rate and review products so that I can share my experience. | | | | |
| BV: 200 | | CP: 3 | |
| Acceptance criteria:  Reviews should be visible and allow ratings. | | | |

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| --- | --- | --- | --- | --- | --- |
| User Story No: 23 | Tasks: View Order History   |  | | --- | |  |  |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to view my past orders so that I can keep track of my purchases. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Users can see order details in their profile. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 24 | Tasks: Personalized Recommendations   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to see product recommendations so that I can find relevant products | | | | |
| BV: 100 | | CP: 3 | |
| Acceptance criteria:  AI-based recommendations should appear on the homepage. | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User Story No: 25 | Tasks: Live Chat Support   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to chat with support so that I can resolve my issues quickly. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  A chatbot or live chat should be available. | | | |

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| --- | --- | --- | --- | --- |
| User Story No: 26 | Tasks: Order Invoice Download   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to download my order invoice so that I can keep a record of my purchase. | | | | |
| BV: 500 | | CP: 2 | |
| Acceptance criteria:  Users should be able to download a PDF invoice from the order history. | | | |

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| User Story No: 27 | Tasks: Wishlist Sharing   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to share my wishlist with friends so that they can see what I like. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  A "Share Wishlist" option should be available with social and email links. | | | |

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| User Story No: 28 | |  | | --- | | Tasks: Multiple Shipping Addresses | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to save multiple shipping addresses so that I can choose the right one at checkout. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  Users should be able to manage multiple addresses in their profile. | | | |

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| User Story No: 29 | |  | | --- | | Tasks: Auto-Apply Discounts | | | Priority: Low |
| Value statement:   |  | | --- | | As a user, I want available discounts to be auto-applied at checkout so that I don’t miss savings. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:   |  | | --- | |  |  |  | | --- | | System should check and apply valid discount codes automatically. | | | | |

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| User Story No: 30 | Tasks: Payment via Wallet   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to pay using my e-wallet balance so that I can complete my purchase quickly. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  Users should be able to load funds and pay via wallet. | | | |

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| User Story No: 31 | Tasks: Subscription-based Purchases   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to subscribe to products so that I receive them at regular intervals. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  Subscription option should be available on selected products. | | | |

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| User Story No: 32 | Tasks: Notify Me for Out-of-Stock Items   |  | | --- | |  | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to be notified when an out-of-stock item is available so that I don’t miss purchasing it. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:   |  | | --- | |  |  |  | | --- | | Users should receive email/SMS alerts for restocked items. | | | | |

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| User Story No: 33 | Tasks: Product Comparison   |  | | --- | |  | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to compare similar products so that I can make the best decision. | | | | |
| BV: 200 | | CP: 3 | |
| Acceptance criteria:   |  | | --- | |  |  |  | | --- | | Users should be able to select multiple products for comparison. | | | | |

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| User Story No: 34 | |  | | --- | | Tasks: Personalized Homepage | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want my homepage to show relevant products based on my preferences so that I can find items easily. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:  Personalized recommendations should be displayed dynamically. | | | |

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| User Story No: 35 | |  | | --- | | Tasks: One-Click Reorder | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to reorder past purchases quickly so that I can save time. | | | | |
| BV: 500 | | CP: 2 | |
| Acceptance criteria:  Users should see a "Reorder" button for previous orders. | | | |

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| User Story No: 36 | |  | | --- | | Tasks: Estimated Delivery Date | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to see an estimated delivery date before placing an order so that I know when to expect it. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Estimated delivery dates should be displayed dynamically on the product page. | | | |

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| User Story No: 37 | |  | | --- | | Tasks: Multiple Currency Support | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to see product prices in my preferred currency so that I can understand the cost. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:   |  | | --- | |  |  |  | | --- | | Users should be able to select their currency preference. | | | | |

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| User Story No: 38 | |  | | --- | | Tasks: Order Gift Wrapping | | | Priority: Medium |
| Value statement:   |  | | --- | | As a user, I want to add gift wrapping to my order so that I can send it as a present. | | | | |
| BV: 200 | | CP: 2 | |
| Acceptance criteria:   |  | | --- | |  |  |  | | --- | | A gift wrap option should be available at checkout. | | | | |

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| User Story No: 39 | |  | | --- | | Tasks: Track Return Status | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to track my return request so that I know when my refund will be processed. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Users should see return status in order history. | | | |

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| User Story No: 40 | |  | | --- | | Tasks: User Data Deletion Request | | | Priority: High |
| Value statement:   |  | | --- | | As a user, I want to request the deletion of my account and data so that my privacy is maintained. | | | | |
| BV: 500 | | CP: 3 | |
| Acceptance criteria:  Users should be able to submit a deletion request from account settings. | | | |