

Stage: 4 BA Mock – Case Study

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

- Manage the inventory
- Quickest delivery to the customers

Assignment 1:

1. Please make a BRD which can be presented to the client along with complete development and resource plan.
2. Prepare process flow diagram using your imagination.

Solution:

Business Requirement Document: A Business Requirement Document (BRD) is a formal document that defines the business goals, needs, and expectations of a project from the client or stakeholder's perspective.

1. Introduction

This BRD outlines the business requirements for developing an **Inventory and Delivery Management System (IDMS)** for a dairy products manufacturing company.

The system aims to **streamline inventory management, track stock movements** across plants and warehouses, and **optimize customer delivery times**.

2. Business Objectives

- Achieve **real-time inventory visibility** across all manufacturing units and warehouses.
- Reduce **stock-out and overstock** situations.
- Enable **fast and efficient delivery routing**.
- Improve **supply chain efficiency** through automation and integration.
- Enhance **customer satisfaction** through timely delivery.

3. Current Challenges

- Lack of centralized visibility of stock.
- Manual tracking of product expiry and storage conditions.
- Delays in customer order fulfilment.
- Inefficient routing for delivery vehicles.
- Lack of real-time reporting and analytics.

4. Proposed Solution

Develop a **centralized ERP-based software system** with the following modules:

- **Inventory Management**
 - Stock tracking by batch, expiry date, and location.
 - Automatic reorder alerts.
 - Integration with manufacturing plants and warehouses.
- **Order Management**
 - Real-time order placement and tracking.
 - Auto-allocation of warehouse based on customer location.
- **Delivery Management**
 - Route optimization for delivery vehicles.
 - Integration with GPS for live delivery tracking.
- **Reports & Analytics**
 - Inventory turnover, wastage reports.
 - Delivery time performance dashboard.
- **User Management**
 - Role-based access (Admin, Plant Manager, Warehouse Manager, Delivery Executive, etc.)

5. Stakeholders

Stakeholder	Role	Responsibility
Client Management	Sponsor	Approve project scope and budget
Business Analyst	Bridge	Requirement gathering and documentation
Development Team	Developers	Build the software modules
QA Team	Testers	Ensure quality and bug-free product
Operations Manager	End User	Validate business processes

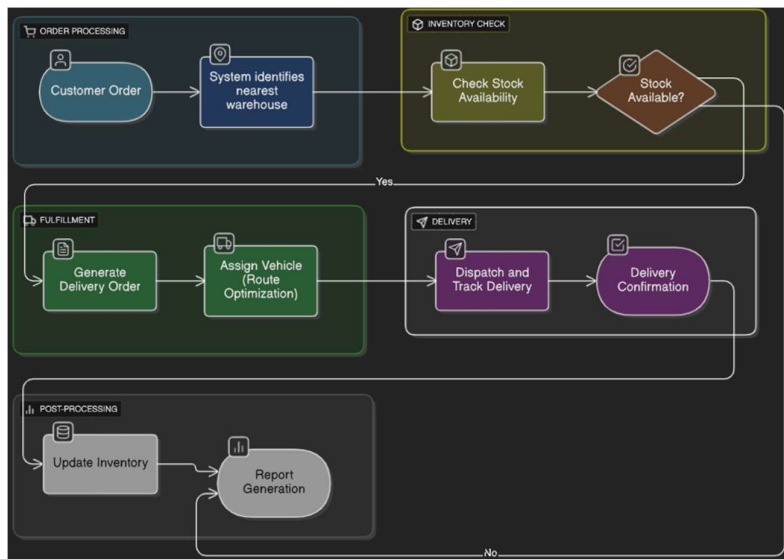
6. Development Plan

Phase	Activity	Duration
Phase 1	Requirement Gathering & BRD approval	2 weeks
Phase 2	UI/UX & Architecture Design	2 weeks
Phase 3	Development (Inventory + Delivery Modules)	6 weeks
Phase 4	Testing (UAT & Integration)	2 weeks
Phase 5	Deployment & Training	1 week
Total Duration	13 weeks (3 months approx.)	

7. Resource Plan

Role	Responsibility	Count
Business Analyst	Requirement documentation	1
Project Manager	Project oversight	1
UI/UX Designer	Interface design	1
Backend Developer	Database & API	2
Frontend Developer	UI implementation	2
QA Engineer	Testing	1
DevOps	Deployment	1

Process Flow Diagram:



Assignment 2:

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.

Solution:

Subject: Introduction – Business Analyst for Your Project

Dear Krishna Dwarkadish,

I hope this message finds you well.

My name is Mayur Shiralkar, and I will be working with you as the Business Analyst for your upcoming project. My role will be to understand your business processes, gather requirements, and ensure that our development aligns with your objectives.

Over the coming days, I will be engaging with you and your team to discuss workflows, challenges, and desired outcomes to build a solution that best fits your operational needs.

Looking forward to a fruitful collaboration.

Thanks & Regards,

Mayur Shiralkar.

Business Analyst, XYZ Techsystems Pvt Ltd.

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

Solution:

Business Requirement Document

Project: Online Store System

Prepared By: Mayur Shiralkar – Business Analyst

Date: 05.10.2025

Version: 1.0

1. Introduction

1.1 Purpose

The purpose of this BRD is to outline the business requirements for developing an **Online Store System** that enables customers to browse, select, and purchase products online securely and conveniently.

The system will help the business expand its digital presence, increase sales, and enhance customer experience.

1.2 Background

With the growing shift toward eCommerce, businesses must provide an online platform to reach customers directly. This system will serve as a centralized portal for customers to shop and for administrators to manage inventory, sales, and deliveries.

1.3 Objectives

- Provide a seamless shopping experience.
- Manage products, inventory, and orders efficiently.
- Enable secure payments.
- Provide delivery tracking and order history for users.
- Allow admin to monitor and control all operations from one dashboard.

2. Business Scope

In Scope:

- Customer Registration, Login, and Profile Management
- Product Browsing, Filtering, and Searching
- Shopping Cart and Checkout Process
- Online Payment Integration (UPI, Credit/Debit, Wallets)
- Order Tracking and Notifications
- Admin Panel for Product, Order, and User Management

Out of Scope:

- Integration with external logistics providers (Phase 2)
- Multi-language support
- International shipping

3. Stakeholders

Stakeholder	Role	Responsibilities
Client	Business Owner	Approves requirements and validates deliverables
Business Analyst	Bridge between client & dev team	Requirement gathering, documentation
Development Team	Developers	Design and implement system
QA Team	Testers	Validate functionality and performance
End Users	Customers	Use platform to shop online
Admin Users	Internal staff	Manage inventory and orders

4. Business Requirements

ID	Requirement	Description
BR_001	User Registration	Allow users to sign up and create accounts
BR_002	User Login	Secure login with authentication
BR_003	Product Management	Admin can add, edit, or delete products
BR_004	Product Search & Filter	Customers can search by name or category
BR_005	Shopping Cart	Add/remove/update items in cart
BR_006	Checkout	Enter shipping details and payment
BR_007	Payment Gateway	Integrate secure payment system
BR_008	Order Tracking	Customers can track order status
BR_009	Notifications	Send email/SMS confirmation
BR_010	Reports	Admin can generate sales and order reports

5. Business Process Flow

- Step 1:** Customer registers and logs in
Step 2: Browses and searches products
Step 3: Adds selected items to the cart
Step 4: Proceeds to checkout
Step 5: Makes payment via secure gateway
Step 6: Receives order confirmation
Step 7: Admin processes and updates delivery status
Step 8: Customer receives delivery and rates product

6. Assumptions

- Internet connection is mandatory.
- Payment gateway API credentials will be provided by the client.
- The application will be deployed on a secure cloud server.

7. Resource and Timeline Plan

Phase	Task	Duration
Phase 1	Requirement Gathering & BRD Sign-off	1 week
Phase 2	UI/UX and Database Design	1 week
Phase 3	Development	4 weeks
Phase 4	Testing	2 weeks
Phase 5	Deployment & Training	1 week
Total Duration	9 Weeks	

8. Approval

Client Signature: _____

Date: _____

Software Requirement Specification:

Project: Online Store System

Prepared By: Mayur Shiralkar – Business Analyst

Version: 1.0

1. Introduction

1.1 Purpose

The SRS defines the **software requirements** for the Online Store System. It outlines system functionalities, interfaces, performance criteria, and design constraints.

1.2 Scope

The system will enable customers to browse, buy, and track orders online while allowing admins to manage products, orders, and users efficiently.

1.3 Intended Audience

- Development Team
- QA Team
- Client & Project Stakeholders

2. System Overview

The Online Store System will have two main user roles:

1. **Customer:** Browse, shop, and track orders.
2. **Admin:** Manage inventory, users, and sales.

The system will be web-based, scalable, and integrated with secure payment gateways.

3. Functional Requirements:

ID	Module	Requirement Description
FR_001	User Management	Users can register, log in, and manage profiles
FR_002	Product Catalog	Display list of products with price, stock, and images
FR_003	Product Search	Search and filter by name, price, or category
FR_004	Shopping Cart	Add, edit, or remove products from cart
FR_005	Checkout	Collect shipping and payment details
FR_006	Payment	Process payment securely via gateway API

FR_007	Order Management	Track order status and history
FR_008	Notifications	Send emails/SMS for order events
FR_009	Reports	Generate daily/monthly sales reports
FR_0010	Feedback	Customers can rate and review products

4. Non-Functional Requirements

ID	Category	Description
NFR_001	Performance	System should support 100 concurrent transactions per second.
NFR_002	Reliability	Automatic data backup every 24 hours.
NFR_003	Availability	99.9% system uptime.
NFR_004	Security	Password encryption, SSL, and role-based access control.
NFR_005	Usability	Simple, intuitive user interface for all age groups.
NFR_006	Scalability	Add new categories, products, and users without downtime.
NFR_007	Maintainability	Modular architecture for easy upgrades.

5. System Interfaces

Interface Type	Description
User Interface	Web application with responsive design
Payment Interface	Integration with Razorpay / Stripe API
Notification Interface	Email/SMS gateway integration
Database Interface	CRUD operations on SQL database

6. Database Design (High-Level Entities)

- Users (UserID, Name, Email, Password, Address, Role)
- Products (ProductID, Name, Price, CategoryID, Stock, Image)
- Orders (OrderID, UserID, TotalAmount, Status, Date)
- OrderDetails (OrderDetailID, OrderID, ProductID, Quantity, Price)
- Category (CategoryID, Name, Description)
- Payment (PaymentID, OrderID, Mode, Status, Date)
- Reviews (ReviewID, ProductID, UserID, Rating, Comments)

7. System Architecture Overview

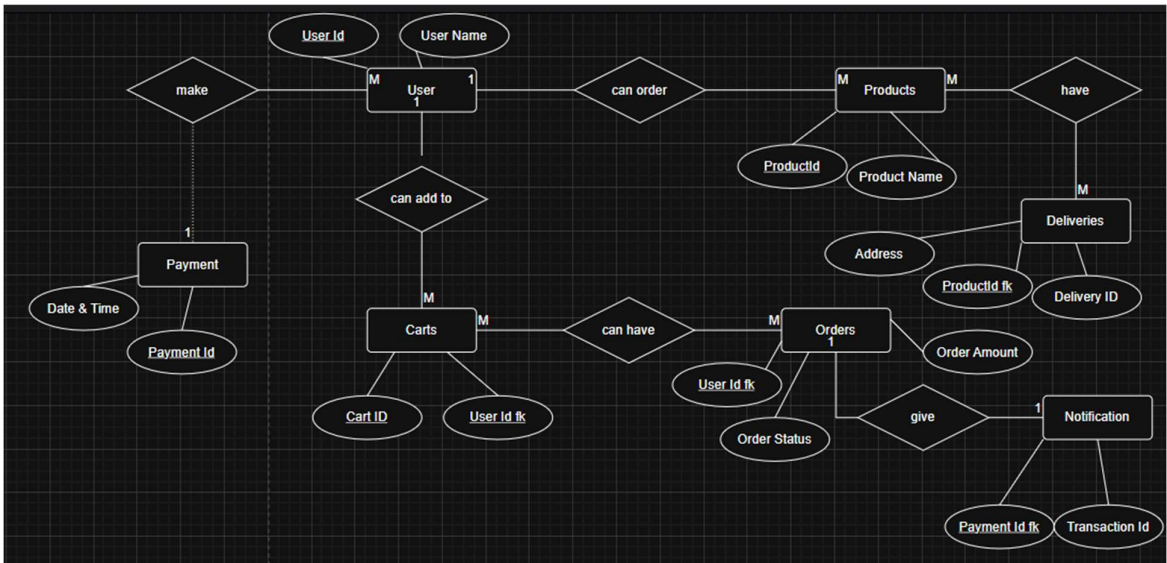
Client Layer: Web Interface (HTML, CSS, JavaScript)
Application Layer: Business Logic (Node.js / Java / .NET)
Database Layer: MySQL / PostgreSQL
Integration Layer: Payment and Notification APIs

8. Constraints

- Must run on latest web browsers (Chrome, Firefox, Edge).
- Responsive for all devices.
- Database storage capacity: minimum 100 GB.

Make an **ERD** of creating a support ticket/Ticketing life cycle.

Solution:



4. User story of shopping from ecommerce.

Solution:

User Story No: 1	Task: 1	Priority: High
As a customer I want to register in the Online Store So that I can log in and purchase products.		
BV: 500	CP: 2	
Acceptance Criteria: Registration screen with text boxes for Username, Password, Email, Mobile No. Click on Register Button. Send successful registration notification to the user.		

User Story No: 2	Task: 2	Priority: High
As a customer I want to log in with my credentials So that I can access my dashboard.		
BV: 20	CP: 3	
Acceptance Criteria: Login form with Username and Password fields. Validate credentials. Redirect to dashboard after successful login.		

User Story No: 3	Task: 3	Priority: High
As a customer I want to view all available products So that I can browse and choose items to buy.		
BV: 50	CP: 3	
Acceptance Criteria: Display product list with name, image, price, and availability.		

User Story No: 4	Task: 4	Priority: High
As a customer I want to filter products by category So that I can find items easily.		
BV: 100		CP: 3
Acceptance Criteria: Filter options by category, price range, and rating.		

User Story No: 5	Task: 5	Priority: High
As a customer I want to search products by name So that I can quickly locate what I need.		
BV: 200	CP: 2	
Acceptance Criteria: Search bar with keyword-based product results.		

User Story No: 6	Task: 6	Priority: High
As a customer I want to view detailed product information So that I can make an informed purchase decision.		
BV: 500	CP: 5	
Acceptance Criteria: Product detail page with image, description, price, stock, and reviews.		

User Story No: 7	Task: 7	Priority: High
As a customer I want to add items to my cart So that I can purchase them later.		
BV: 10	CP: 2	
Acceptance Criteria: Add to Cart button, confirmation message, and cart counter update		

User Story No: 8	Task: 8	Priority: High
As a customer I want to update or remove items from the cart So that I can manage my selected products.		
BV: 500	CP: 3	
Acceptance Criteria: Edit quantity or delete item options in cart.		

User Story No: 9	Task: 9	Priority: High
As a customer I want to view my shopping cart So that I can review selected items before checkout.		
BV: 200	CP: 2	
Acceptance Criteria: Cart page showing all items, subtotal, and total amount.		

User Story No: 10	Task: 10	Priority: High
As a customer I want to check out and make payment So that I can complete my purchase.		
BV: 50	CP: 2	
Acceptance Criteria: Checkout page with address and payment details. Integration with payment gateway.		

User Story No: 11	Task: 11	Priority: Medium
As a customer I want to save my shipping address So that I can reuse it for future orders.		
BV: 200	CP: 2	
Acceptance Criteria: Address form with save and edit options.		

User Story No: 12	Task: 12	Priority: Medium
As a customer I want to track my order status So that I know when to expect delivery.		
BV: 200	CP: 3	
Acceptance Criteria: Order tracking page with live status updates.		

User Story No: 13	Task: 13	Priority: High
As a customer I want to receive email notifications for orders So that I stay informed.		
BV: 100	CP: 2	
Acceptance Criteria: Send order placed, shipped, and delivered emails.		

User Story No: 14	Task: 14	Priority: Medium
As a customer I want to view my previous orders So that I can reorder products.		
BV: 100	CP: 5	
Acceptance Criteria: Order history page showing all past orders.		

User Story No: 15	Task: 15	Priority: Medium
As a customer I want to cancel an order before dispatch So that I can modify my decision.		
BV: 200	CP: 2	
Acceptance Criteria: Cancel button active before dispatch status.		

User Story No: 16	Task: 16	Priority: Medium
As a customer I want to rate and review products So that I can share my feedback.		
BV: 100	CP: 3	
Acceptance Criteria: Star rating and comment section per product.		

User Story No: 17	Task: 17	Priority: low
As a customer I want to view recommended products So that I can discover similar items.		
BV: 100	CP: 2	
Acceptance Criteria: Display suggestions based on purchase history.		

User Story No: 18	Task: 18	Priority: Medium
As a customer I want to apply discount codes So that I can get reduced prices.		
BV: 500	CP: 5	
Acceptance Criteria: Promo code field with validation and discount calculation.		

User Story No: 19	Task: 19	Priority: Medium
As a customer I want to add items to Wishlist So that I can save them for future purchase.		
BV: 100	CP: 5	
Acceptance Criteria: Wishlist page with add/remove functionality.		

User Story No: 20	Task: 20	Priority: High
As an Admin I want to add new products So that I can update the store inventory.		
BV: 200		CP: 2
Acceptance Criteria: Form for product name, category, price, stock, and image.		

User Story No: 21	Task: 21	Priority: High
As an Admin I want to edit or delete products So that I can maintain updated product data.		
BV: 200	CP: 2	
Acceptance Criteria: Update and delete buttons on product management screen.		

User Story No: 22	Task: 22	Priority: Medium
As an Admin I want to view all customer orders So that I can manage deliveries.		
BV: 200	CP: 2	
Acceptance Criteria: Order list with order number, date, and status.		

User Story No: 23	Task: 23	Priority: Medium
As an Admin I want to view all customer orders So that I can manage deliveries.		
BV: 500	CP: 2	
Acceptance Criteria: Order list with order number, date, and status.		

User Story No: 24	Task: 24	Priority: High
As an Admin I want to assign orders to delivery partners So that dispatch is efficient.		
BV: 100	CP: 1	
Acceptance Criteria: Assign delivery executive to each order.		

User Story No: 25	Task: 25	Priority: High
I want to update delivery status So that customers can track progress.		
BV: 200	CP: 3	
Acceptance Criteria: Delivery status dropdown: Pending, Shipped, Delivered.		

User Story No: 26	Task: 26	Priority: High
As an Admin I want to generate sales reports So that I can analyse business performance		
BV: 50	CP: 3	
Acceptance Criteria: Reports by date, category, and revenue.		

User Story No: 27	Task: 27	Priority: High
As an Admin I want to manage users So that I can control platform access.		
BV: 20	CP: 2	
Acceptance Criteria: Add, edit, block, or delete user profiles		

User Story No: 28	Task: 28	Priority: low
As an Admin I want to view customer feedback So that I can improve products.		
BV: 100	CP: 3	
Acceptance Criteria: Feedback dashboard linked to product ratings		

User Story No: 29	Task: 29	Priority: low
I want to send promotional emails So that I can inform users of new offers.		
BV: 100	CP: 2	
Acceptance Criteria: Email template system with scheduling.		

User Story No: 30	Task: 30	Priority: Medium
As an Admin I want to manage categories So that I can organize products better.		
BV: 200	CP: 5	
Acceptance Criteria: Add/edit/delete categories feature.		

User Story No: 31	Task: 31	Priority: High
As a Delivery Partner I want to register into the system So that I can receive assigned orders.		
BV: 100		CP: 1
Acceptance Criteria: Registration form with ID, phone, vehicle details.		

User Story No: 32	Task: 32	Priority: Medium
As a Delivery Partner I want to view assigned deliveries So that I can plan my route.		
BV: 500	CP: 5	
Acceptance Criteria: Dashboard showing delivery list with status.		

User Story No: 33	Task: 33	Priority: Medium
As a Delivery Partner I want to update delivery status So that the system reflects real-time progress.		
BV: 100	CP: 2	
Acceptance Criteria: Mark orders as Delivered, Returned, or Delayed.		

User Story No: 34	Task: 34	Priority: Medium
As a Delivery Partner I want to view delivery addresses on a map So that I can navigate easily.		
BV: 100	CP: 2	
Acceptance Criteria: Map integration with route optimization.		

User Story No: 35	Task: 35	Priority: High
As a customer I want to contact customer support So that I can resolve issues quickly.		
BV: 200	CP: 3	
Acceptance Criteria: Support form and ticket generation		

User Story No: 36	Task: 36	Priority: Medium
As a customer I want to receive order delivery confirmation SMS So that I know my order is completed.		
BV: 10	CP: 2	
Acceptance Criteria: SMS API integration for status updates.		

User Story No: 37	Task: 37	Priority: Low
As an Admin I want to view top-selling products So that I can optimize stock levels.		
BV: 20	CP: 3	
Acceptance Criteria: Dashboard chart with product sales ranking.		

User Story No: 38	Task: 38	Priority: Medium
As an Admin I want to track system errors and logs So that I can ensure smooth operations.		
BV: 50	CP: 1	
Acceptance Criteria: Log viewer with filter and export features.		

User Story No: 39	Task: 39	Priority: High
As a customer I want a secure payment gateway So that my transactions are safe.		
BV: 20	CP: 1	
Acceptance Criteria: Payment via UPI, card, wallet with encryption.		

User Story No: 40	Task: 40	Priority: High
As a customer I want to log out of my account So that I can protect my privacy.		
BV: 200	CP: 5	
Acceptance Criteria: Logout button and redirection to login screen.		

