**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.**

**A: Business Requirements Document (BRD)**

**Project Name:** Inventory & Delivery Management System for Ice-Cream and Milk Products

**Prepared By:** Sanket Patil **Date:** 03-02-2025

**1. Executive Summary**

The purpose of this project is to develop an integrated software solution to manage inventory efficiently and optimize delivery times for customers. The system will ensure real-time stock updates and suggest the fastest delivery routes to enhance customer satisfaction.

**2. Business Objectives**

1. **Efficient Inventory Management:** Track stock levels in real-time across manufacturing plants and warehouses.
2. **Optimized Delivery System:** Ensure the fastest possible delivery to customers using automated route optimization.
3. **Minimize Wastage:** Reduce spoilage and manage perishable goods efficiently.
4. **Seamless Integration:** Integrate with existing ERP and supply chain systems.

**3. Scope of Work**

**3.1 In-Scope:**

* Centralized inventory tracking system.
* Warehouse stock monitoring.
* Real-time order processing.
* Automated route optimization for deliveries.
* Integration with third-party logistics providers.
* Mobile app for delivery tracking.
* Role-based access for stakeholders.

**3.2 Out of Scope:**

* Hardware procurement for warehouses.
* Marketing and sales functionalities.

**4. Stakeholders**

|  |  |  |
| --- | --- | --- |
| **Role** | **Responsibility** | **Name** |
| Business Owner | Approves and funds the project |  |
| Warehouse Managers | Monitor inventory levels |  |
| IT Team | Develops and maintains software |  |
| Logistics Manager | Ensures optimized delivery routes |  |
| Customers | Receive timely deliveries |  |

**5. Functional Requirements**

**5.1 Inventory Management:**

* Track stock levels across warehouses.
* Auto-replenishment alerts when stock is low.
* Categorization of perishable and non-perishable items.
* Reporting and analytics on inventory turnover.

**5.2 Order Processing & Delivery:**

* Real-time order tracking.
* AI-based route optimization for deliveries.
* Customer notifications on delivery status.
* Integration with third-party logistics APIs.

**5.3 User Management & Security:**

* Role-based access control.
* Multi-factor authentication for system access.

**6. Non-Functional Requirements**

* **Performance:** System should support 10,000+ transactions per day.
* **Scalability:** Expandable to new manufacturing plants.
* **Security:** Encrypted data storage and compliance with industry standards.
* **Availability:** 99.9% uptime with cloud-based hosting.

**7. Development & Resource Plan**

**7.1 Development Phases:**

|  |  |  |
| --- | --- | --- |
| **Phase** | **Timeline** | **Deliverables** |
| Requirement Analysis | 1 Month | BRD Approval, Wireframes |
| UI/UX Design | 1 Month | Prototypes, UI Design |
| Development | 4 Months | Backend & Frontend Development |
| Testing | 2 Months | UAT, Performance Testing |
| Deployment | 1 Month | Live Rollout |
| Maintenance | Ongoing | Bug Fixes, Updates |

**7.2 Resource Allocation:**

| **Role** | **Count** |
| --- | --- |
| Business Analysts | 2 |
| UI/UX Designers | 2 |
| Backend Developers | 4 |
| Frontend Developers | 3 |
| QA Engineers | 3 |
| DevOps Engineers | 2 |

**8. Risks & Mitigation Strategies**

|  |  |
| --- | --- |
| **Risk** | **Mitigation Strategy** |
| Delays in Development | Agile Methodology with iterative releases |
| Data security breaches | Implement strict security protocols |
| Integration Challenges | API-first approach for seamless integration |

**9. Approval & Sign-Off**

| **Stakeholder Name** | **Role** | **Signature** |
| --- | --- | --- |
| [Business Owner] | Project Sponsor | [Signature] |
| [Project Manager] | IT Team Lead | [Signature] |
| [Warehouse Manager] | Operations | [Signature] |

**2. Prepare process flow diagram using your imagination.**

A:

A diagram of a software process

AI-generated content may be incorrect.

**Assignment 2:**

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

A:

**Subject:** Introduction as Your Business Analyst Partner

Dear [Client's Name],

I hope this email finds you well.

My name is Sanket Patil, and I am pleased to introduce myself as the Business Analyst assigned to collaborate with you and your team on [Project Name]. It is my role to ensure a thorough understanding of your business requirements, processes, and goals to facilitate a seamless and effective project execution.

Throughout this engagement, I will be working closely with you to gather insights, analyze needs, and document requirements that align with your strategic objectives. My goal is to bridge the gap between your business vision and the technical implementation, ensuring a tailored solution that meets your expectations.

To kick off the process, I would love to schedule an initial discussion at your convenience. This will allow us to align on priorities, key stakeholders, and any immediate areas of focus.

Please let me know a suitable time that works for you, and I look forward to our collaboration.

Best regards,  
[Your Name]  
Business Analyst  
[Your Contact Information]  
[Company Name]

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

**A:**

**Business Requirements Document (BRD) - Online Ticketing System**

**1. Project Overview**

The Online Ticketing System is designed to enable users to book tickets for events, movies, and transportation seamlessly through a web and mobile platform. It aims to enhance user experience by providing a fast, secure, and intuitive booking process.

**2. Business Objectives**

* Enable users to book tickets online for various events.
* Provide a seamless payment and refund process.
* Ensure real-time availability updates and booking confirmation.
* Offer user account management for booking history and preferences.

**3. Scope**

**In Scope:**

* User registration and authentication.
* Event, movie, and transportation ticket listings.
* Seat selection and booking process.
* Payment gateway integration.
* Email/SMS notifications for booking confirmation.
* Ticket cancellation and refund processing.

**Out of Scope:**

* On-ground ticket verification and validation.
* Third-party API development for event listings.

**4. Key Stakeholders**

* Customers (End Users)
* Event Organizers & Theaters
* Business Owners & Administrators
* IT & Development Team
* Payment Gateway Providers

**Software Requirements Specification (SRS) - Online Ticketing System**

**1. Introduction**

The Online Ticketing System aims to provide a centralized platform for users to book tickets, manage reservations, and receive updates. It will integrate with third-party payment services and provide a secure environment for transactions.

**2. Functional Requirements**

1. **User Management**
   * Users can register, log in, and update profiles.
   * Users can reset passwords via email.
2. **Ticket Booking**
   * Users can search for available tickets based on location, date, and category.
   * Users can select seats (for movies, concerts, etc.).
   * Users can confirm bookings and make payments.
3. **Payments & Refunds**
   * System integrates with multiple payment gateways.
   * Users can request refunds based on cancellation policies.
4. **Notifications & Alerts**
   * System sends booking confirmation emails/SMS.
   * Users receive reminders before event start times.

**3. Non-Functional Requirements**

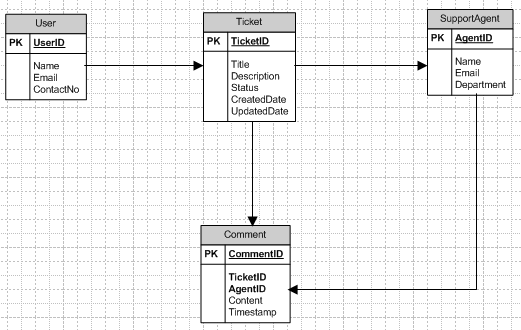
* **Security**: Data encryption for transactions and user information.
* **Performance**: System should support up to 100,000 concurrent users.
* **Availability**: 99.9% uptime guarantee.
* **Scalability**: Ability to expand as more users and event categories are added.

**4. Assumptions & Constraints**

* Users must have internet access to use the platform.
* Payment gateways must comply with PCI DSS standards.
* System should support multiple languages and currencies.

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

**A:**



**4. User story of shopping from ecommerce.**

**A:**

**User Stories for Shopping from an E-commerce Platform**

**Here are some User Stories with Acceptance Criteria for an E-commerce Shopping Experience:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **User Story ID** | **User Story** | **User Story Detail** | **BV** | **CP** | **Acceptance Criteria** |
| US001 | **User Registration & Login** | As a user,  I want to register and log in securely  so that I can access my account and make purchases. | $ 3500 | 9 | -User should be able to register with an email and password.  -User should receive a verification email after registration.  -User should be able to log in using valid credentials.  -System should display an error message for invalid credentials. |
| US002 | **Searching for a Product** | As a customer, I want to search for products by name or category so that I can find what I need easily. | $ 3000 | 8 | -Users should be able to search for products using keywords.  -System should display search results matching the keywords.  -Filters (price range, brand, rating) should be available for refining searches. |
| US003 | **Adding Products to Cart** | As a customer, I want to add products to my cart so that I can review them before making a purchase. | $ 2500 | 8 | -Users should be able to add products to their shopping cart.  -Users should be able to view, edit, and remove items from the cart.  -The cart should update the total price dynamically. |
| US004 | **Checkout & Payment** | As a customer, I want to check out and pay securely so that I can complete my purchase. | $ 2500 | 9 | -Users should be able to enter shipping and billing details.  -System should support multiple payment options (credit card, PayPal, UPI, etc.).  -Users should receive a confirmation email after successful payment. |
| US005 | **Order Tracking** | As a customer, I want to track my order status so that I know when to expect my delivery. | $ 2000 | 7 | -Users should be able to view their order history.  -System should provide real-time order tracking updates.  -Users should receive notifications for order shipment and delivery. |
| US006 | **Leaving a Review** | As a customer, I want to leave a review and rate products so that others can make informed decisions. | $ 2000 | 7 | -Users should be able to submit a rating and review after purchase.  -Reviews should be moderated before publishing.  -Users should be able to edit or delete their own reviews. |