**Assignment 1**

**Business Requirements Document (BRD)**

**Project Name**: Ice Cream and Dairy Products Inventory & Delivery Management System
**Version**: 1.0
**Date**: 09-03-25
**Prepared by**: Rohit Sarnaik

1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** |
| 09/03/2025 | 1.1 | Initial Draft |
| 10/03/2025 | 1.1 | Project Overview |
| 12/03/2025 | 1.2 | BA Strategy |
| 19/03/2025 | 1.2 | Design |

1. **Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Ajay Krishnamani | Vice President  | AK | 08/3/2025 |
| Business Owner | Anand Deshpande | Director | AD | 09/3/2025 |
| Project Manager | Mohit Nirwan | Sr. Project Manager  | MN | 09/3/2025 |
| System Architect | Yogesh Chavan | Lead System Architect  | YC | 10/3/2025 |
| Development Lead | Neha Marathe | Technical Lead | NM | 11/3/2025 |
| User Experience Lead | Divya Dadlani | UX Lead | DD | 12/3/2025 |
| Quality Lead | Yash Kawade | QA Manager  | YK | 15/3/2025 |
| Content Lead | Yatin Deshpande | Content Strategies  | YD | 25/3/2025 |

1. **RACI Matrix**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **R** | **A** | **C** | **I** |
| Ajay Krishnamani | Vice President  | No | Yes | Yes | Yes |
| Anand Deshpande | Director | No | Yes | Yes | Yes |
| Mohit Nirwan | Sr. Project Manager  | No | No | No | Yes |
| Yogesh Chavan | Lead System Architect  | No | No | No | Yes |
| Neha Marathe | Technical Lead | No | No  | No | Yes |
| Divya Dadlani | UX Lead | Yes | No | No | No |
| Yash Kawade | QA Manager  | No | No | Yes | Yes |
| Yatin Deshpande | Content Strategies  | No | No | Yes | Yes |

Codes Used in RACI Chart

 R Responsible Responsible for creating this document

 A Accountable Accountable for accuracy

 C Consulted Provides input

 I Informed Must be informed of any change

1. **Introduction**
	1. **Goals**

The goals of the software are as follows-

* **Enhance Operational Efficiency** – Streamline inventory tracking and order fulfilment across manufacturing plants and warehouses.
* **Ensure Real-Time Visibility** – Enable real-time monitoring of stock levels, shipments, and customer orders.
* **Quick Delivery Speed** – Ensure the deliver is made in minimum possible time
* **Improve Customer Satisfaction** – Provide accurate order tracking, faster deliveries, and proactive customer communication.
* **Integrate with External Systems** – Seamlessly connect with third-party logistics, payment gateways, and analytics tools.
* **Avoid Product Wastage** – The products have a short expiry time and hence through the system can be stocked in right amount and delivered quickly.

**4.2 Objectives**

The objectives of the software are as follows-

* **Inventory Management:** Real-time tracking and management of inventory at manufacturing plants and warehouses.
* **Optimized Delivery System:** Quickest delivery to customers based on location and stock availability.
* **Seamless Integration:** A unified system integrating inventory, logistics, and customer orders.
* **Automated Order Processing:** Reduce manual intervention in stock movement and delivery scheduling.
* **Data-Driven Decision Making:** Provide analytics and reports for better business insights.
	1. **Business Rules**
* **Inventory Updates:** All inventory changes must be updated in real-time across all locations.
* **Order Fulfilment Priority:** Orders must be fulfilled from the nearest warehouse with available stock.
* **Batch Tracking:** Expired or near-expired stock must be flagged and restricted from order fulfilment.
* **User Access Control:** Different user roles must have specific access permissions to prevent unauthorized actions.
* **Automated Alerts:** System should send notifications for low stock, delivery delays, and failed transactions.
* **Compliance & Quality Control:** All inventory handling must comply with food safety regulations and quality standards.
* **Third-Party Integration:** The system must support integration with logistics providers and payment gateways.
	1. **Background**

Quality Dairy manufactures ice-cream and milk products and has manufacturing plants and warehouses in various parts of the country. They need to manage the inventory across various plants and warehouses they have in the country and also provide quick and efficient delivery to the customers. They require of a system which would allow them to track and manage inventory across all plants and warehouses and help plan the production and stocking. The system should manage delivery and provide quick and efficient solution in minimal time so that they can provide in-time delivery to the customers.

**4.5 Project Objective**

The objective of the project is to have a system which would help Quality Dairy to track and manage its inventory and increase efficiency by having timely production and avoid stock out or overstock of its products as they have products with short expiry time. They also need the system to manage delivery so that the product can be delivered quickly from the nearest warehouse to retailers and customers.

**4.6 Scope**

**In Scope Functionality:**

* **Real-time Inventory Tracking:** Stock updates at plants and warehouses.
* **Automated Replenishment Alerts:** Notifications for low stock and expiration.
* **Order Management System:** Order placement, processing, and fulfilment.
* **Third-Party Logistics Integration:** Seamless connection with external delivery providers.
* **Customer Order Tracking:** Live tracking and notifications.
* **Role-Based Access Control:** Secure authentication and authorization for different user roles.
* **Data Analytics & Reporting:** Insights into stock movement, demand forecasting, and operational efficiency.

 **Out Scope:**

* **Manufacturing Process Automation:** The system will not control or automate the actual manufacturing of products.
* **Customer Usage:** The software is not for customer use and does not allow to place order through the system
* **Physical Delivery Management:** The system will facilitate logistics coordination but will not handle actual transportation.
* **Multi-Country Operations:** The initial implementation is limited to domestic operations only.
1. **Assumptions**
* The company will provide accurate initial inventory data for system setup.
* All warehouses and plants have internet connectivity for real-time updates.
* The company has an existing logistics network that the system will integrate with.
* The software will be accessed through web and mobile applications by authorized personnel.
* External delivery partners will support API-based integration for seamless order fulfilment.
* Regulatory compliance requirements (such as food safety laws) will be provided by the company for proper integration.
* The company will ensure all hardware and network infrastructure is adequate for running the system efficiently.
1. **Constraints**
* **Budget Limitations:** The project must be developed within the allocated budget constraints.
* **Timeframe:** The software must be delivered within the planned development schedule.
* **System Performance:** The system must handle a high volume of inventory and order transactions without performance degradation.
* **Integration Limitations:** The software must work with the company's existing logistics network and third-party integrations without significant modifications.
* **Regulatory Compliance:** The system must adhere to industry regulations for food safety, data privacy, and logistics standards.
* **User Training & Adoption:** Employees must undergo training, and the system should be designed for ease of use to minimize resistance.
* **Data Storage & Security:** The software must comply with secure data storage practices, including encryption and regular backups.
* **Hardware & Infrastructure:** The Company is responsible for ensuring that all warehouses and plants have the necessary IT infrastructure to support system operations.
1. **Risks**
* **Data Security & Compliance** – There are risk of the data leaks from the software or the software does not meet the compliance can cause issue

**Strategy** - Implement encryption, regular security audits, and strict access controls.

* **System Downtime** – There can be times when the system has a downtime because of system failure or high load due to which all operations depended on the system can be affected causing great loss

**Strategy** - High availability setup, redundancy planning, and failover mechanisms.

* **Third-Party Integration Failures** – The third-party apps which need to be integrated like the customer delivery partner app or payment app can cause issue

**Strategy** - Backup providers, API monitoring, and fall-back mechanisms.

* **User Adoption Challenges** – The user might face difficulties in understanding and using the system which might affect the business operations.

 **Strategy** - Comprehensive training programs and user-friendly UI/UX design.

* **Data Loss or Corruption** – There can be loss of data in cases of problems in the system or data can be corrupted which might cause loss to the business and halt operation.

**Strategy** - Regular backups, disaster recovery plans, and cloud redundancy.

**8. Business Process Overview**

**Legacy System (AS-IS)**

The legacy system process involved keeping records of the inventory manually and planning the production as and when the orders were received from the customers which delayed the whole process. There was no delivery management system to optimize the delivery and routes were planned manually and no real time tracking of vehicles was involved. As and when the order from customer was received the inventory was checked if there is availability of stock and the ordered item was prepared for delivery.



**Proposed Recommendations (TO-BE)**

The proposed system digitizes inventory and delivery management reducing the understocking or overstocking of inventory and increasing and optimizing the delivery of products to customer. The system forecasts products based on their past sales history, demand and other factors which affect the demand. The production is done based on forecast beforehand so that there is no shortage of products and can be immediately made available when required. The system also provides optimisation of delivery by automating the delivery process by selecting the nearest warehouse available to deliver product and scheduling the delivery through and optimized route



**9. Business Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement ID | Description | Source/Stakeholder  | Priority |
| BR-01 | The system should allow real-time inventory tracking across multiple locations | Customers, Sales & marketing Team | High |
| BR-02 | The system should generate automated alerts for low stock or near-expiry products. | Warehouse managers, operations Teams | High |
| BR-03 | The system should assign orders to the nearest warehouse automatically | Logistic Team, Inventory management Team | High |
| BR-04 | The system should have login functionality with different user access roles | Logistic Team, IT Team | High |
| BR-05 | The delivery routes should be optimized by the system | Customers, customer support Team | Medium  |
| BR-06 | The system should show the available products details and quantity | Warehouse operations, IT Team  | Medium |
| BR-07 | The system should show the expiry date of the products at different locations | Finance Team, customers | High |
| BR-08 | The system should be able to perform forecast based on past sales and current demand | Business Intelligence Team, Data Analytics Team | Medium |
| BR-09 | Reports should provide insights into stock levels, sales trends, and delivery performance. | IT Admin Team, HR Team  | Medium  |
| BR-10 | The system should be scalable to handle future business requirements | IT Team, Cloud infrastructure Team | High |
| BR-11 | The system should have minimum downtime and able to handle large requests | IT Team, Cloud operations Team  | High |
| BR-12 | The system should be user friendly and easy to use | Legal Compliance Team, IT Security Team | High |
| BR-13 | The system should be available on mobile and web application | IT Security Team, Database Admin Team | High |

**10. Development and Resource Plan**

Development Plan:

1. Phase 1: Requirement Gathering (4 weeks)
	* Conduct workshops with stakeholders.
	* Finalize system architecture and design.
2. Phase 2: Development of Core Modules (12 weeks)
	* Develop the Inventory, Order, and Delivery modules.
3. Phase 3: Integration with External and Legacy Systems (6 weeks)
	* Integrate with GPS, weather data APIs, and any existing company systems.
4. Phase 4: Testing & Quality Assurance (4 weeks)
	* Perform unit, integration, and user acceptance testing (UAT).
5. Phase 5: Deployment, Training, and Support (4 weeks)
	* Deploy the system.
	* Train the internal team on the new processes and software.
	* Provide post-launch support.

Resource Plan:

* Project Manager: 1 Full-Time Equivalent (FTE)
* Developers: 3 FTE (Backend Developer, Frontend Developer, Integration Specialist)
* QA Engineers: 2 FTE
* Business Analyst: 1 FTE
* Support Team: 2 FTE (for post-launch support)

10 Appendices

10.1 List of Acronyms

|  |  |
| --- | --- |
| Acronym | Full Form |
| AI | Artificial Intelligence  |
| BI | Business Intelligent  |
| COD | Cash On Delivery |
| CRM | Customer Relationship Management  |
| BR | Business Requirement  |
| UI | User Interface  |
| UX | User Experience  |
| UPI | Unified Payments Interface  |
| QA | Quality Assurance  |

10.2 Glossary of Terms

|  |  |
| --- | --- |
| Terms  | Definition  |
| Customer Relationship Management (CRM) | A system used to manage a company’s interactions with customers and streamline business processes |
| Inventory Management System (IMS) | A Software Application that tracks inventory levels, orders and stock movements |
| Unified Payments Interface (UPI) | A real-time digital payment system widely used in India for secure financial transaction  |
| User Experience (UX) | The overall experience a user has while interacting with a system, focusing on usability and satisfaction  |
| User Interface (UI) | The graphical and interactive components of a software application that users engage with  |
| Warehouse Management System (WMS) | A software system that helps manage warehouse operations such as inventory tracking, order fulfilment, and logistic  |

10.3 Related Documents

|  |  |  |  |
| --- | --- | --- | --- |
| Document Name | Description | Version | Date  |
| Business Case Document  | Justifies the need for the project, expected ROI and impact on business operations  | 1.0 |  |
| Stakeholder Register  | Identifies key stakeholders, their responsibility and influence on the project  | 1.0 |  |
| Initial Risk Assessment Document  | Identifies potential risks, their impact and preliminary mitigation strategy  | 1.0 |  |
| High-Level Project Plan | Provides an initial-schedule, milestones and resource allocation before detailed planning  | 1.0 |  |
| Budget Estimation and Cost Plan  | Estimates project costs, including resources, development, infrastructure and licensing  | 1.0 |  |
| Requirement Gathering Plan | Outlines the strategy for collecting business and technical requirements from stakeholders | 1.0 |  |
| Communication Plan  | Defines how information will be shared among stakeholders, including meeting schedules and reporting structures  | 1.0 |  |
| Vendor Evaluation Document  | If third-party vendors are involved, this document assesses their capabilities, pricing and contracts  | 1.0 |  |
| Legal & Compliance Checklist  | Ensure the project aligns with regulatory requirements  | 1.0 |  |

**.**

**Prepare process flow diagram using your imagination**



**Assignment 2**

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

Dear Sir,

I hope this message finds you well.

My name is Rohit Sarnaik, and I am delighted to introduce myself as the **Business Analyst** who will be working with you and your team to start the business understanding process for software development project for Quality Dairy Manufacturers. I am looking forward to collaborating with you to ensure that we gain a comprehensive understanding of your business needs and objectives, which will allow us to deliver solutions that align with your goals.

As a business analyst, my role will involve working closely with both your team and key stakeholders to gather insights, define requirements, and help shape the direction of the project. I will be facilitating discussions, gathering detailed information about your current business processes, and ensuring that we identify all relevant challenges and opportunities.

I am excited to get started and to support you in making well-informed decisions that will contribute to the success of your project. Please feel free to reach out to me if you have any questions or need any clarifications along the way.

Looking forward to working with you and your team.

Best regards,
Rohit Sarnaik
Business Analyst
8668569213

**Business Requirement Document**

 **Online Clothing Store**

1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** |
| 01/03/2025 | 1.1 | Initial Draft |
| 05/03/2025 | 1.1 | Project Overview |
| 15/03/2025 | 1.2 | BA Strategy |
| 20/03/2025 | 1.2 | Design |

1. **Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Ajay Krishnamani | Project Sponsor | AK | 2/3/2025 |
| Business Owner | Anand Deshpande | Business Owner | AD | 2/3/2025 |
| Project Manager | Mohit Nirwan | Project Manager | MN | 4/3/2025 |
| System Architect | Yogesh Chavan | System Architect | YC | 5/3/2025 |
| Development Lead | Neha Marathe | Development Lead | NM | 10/3/2025 |
| User Experience Lead | Divya Dadlani | User Experience Lead | DD | 12/3/2025 |
| Quality Lead | Yash Kawade | Quality Lead | YK | 15/3/2025 |
| Content Lead | Yatin Deshpande | Content Lead | YD | 20/3/2025 |

1. **RACI Matrix**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **R** | **A** | **C** | **I** |
| Omkar Birade | Delivery Head | No | Yes | Yes | Yes |
| Mohit Nirwan | Project Manager | No | Yes | Yes | Yes |
| Gaurav Birari | Team Lead | No | No | No | Yes |
| Neha Marathe | Developer | No | No | No | Yes |
| Yash Kawade | Tester | No | No  | No | Yes |
| Anuj Jain | Business Analyst | Yes | No | No | No |
| Nagesh Madale | Project Coordinator | No | No | Yes | Yes |
| All Employees | Employees | No | No | Yes | Yes |
| Rujuta Patil | Service Desk | No | No | Yes | Yes |
| Sarvesh Bhosale | Upper Management | No | No |  Yes | Yes |
| Anand Deshpande | Business Owner | No | No  | Yes | Yes |

Codes Used in RACI Chart

 R Responsible Responsible for creating this document

 A Accountable Accountable for accuracy

 C Consulted Provides input

 I Informed Must be informed of any change

**4. Introduction**

**Goals**

The goals of the Online Clothes Store are as follows-

* Establish a user-friendly online platform for purchasing clothing.
* Enhance customer experience with a seamless shopping and checkout process.
* Expand market reach and increase sales revenue.
* Implement secure and reliable payment options.
* Improve operational efficiency through automation and data-driven decision-making.
* Build customer loyalty through personalized experiences and promotions
* Allow shopping from home to customers with exchange and trial available to increase reliability and comfort to customers

**Objectives**

The objectives of the Online Shopping Store are as follows

* Launch a fully functional e-commerce website for clothes.
* Ensure a mobile-responsive design for accessibility on all devices.
* Integrate multiple payment options including credit/debit cards, digital wallets, net banking and cash on delivery services
* Develop a customer account feature for order tracking and personalized recommendations.
* Enable integration with social media platforms for marketing and engagement.

**Business Rules**

* Customers must register an account to track their orders and receive personalized recommendations.
* Only verified payment methods will be accepted.
* Orders will be processed only after successful payment authorization.
* Customers can request returns or exchanges according to the brand and available time period for exchange, subject to product condition.
* Discounts and promotions will be applied only if valid at the time of purchase.
* A minimum order amount may be required for free shipping eligibility

**Background**

The online clothing industry has seen a significant shift towards digital commerce, driven by consumer preference for convenience and variety. The company aims to leverage this trend by launching an intuitive online shopping platform that caters to diverse customer needs while maintaining high service standards. The company also aims to allow customers to shop from home with comfort and reliability thus catering to customer experience.

**Project Objective**

To design, develop, and deploy an e-commerce platform that offers a seamless shopping experience, integrates with third-party logistics providers, supports multiple payment methods, and enhances customer engagement through data-driven insights. The platform also aims to not enhance the whole shopping experience which is not limited to only purchasing of clothes but personalized recommendations and also providing customer a whole shopping experience with exchange and trial on delivery available.

**Scope**

The current project includes development of a platform which allows customer to shop clothes online providing a seamless shopping experience

**In Scope Functionality:**

* User registration and profile management
* Product catalogue with filtering and search features
* Shopping cart and secure checkout
* Multiple payment gateway integration
* Order tracking and history
* Customer support and chatbot assistance
* Promotional offers, discounts, and loyalty programs
* Inventory and stock management system
* Social media integration

**Out of Scope:**

* Physical retail store integration
* Customized or made-to-order clothing options
* Marketplace for third-party sellers
* International shipping beyond predefined regions
* AI-driven virtual try-on feature

**Assumptions**

* Customers will have stable internet connections to access the website.
* The payment gateway providers will ensure secure transactions.
* The website will be hosted on a scalable cloud platform.
* Shipping partners will deliver products within defined timelines.

**Constraints**

* Budget limitations for development and marketing efforts.
* Compliance with legal and regulatory requirements for online transactions.
* Dependence on third-party payment gateways and logistics providers.
* Limited resources for website maintenance and support post-launch.

**Risks**

* **Potential cybersecurity threats and data breaches**.

Strategy – - Implement encryption, regular security audits, and strict access controls.

* **System Downtime** – There can be times when the system has a downtime because of system failure or high load.

Strategy - High availability setup, redundancy planning, and failover mechanisms.

* **Payment gateway failures causing transaction issues.**

Strategy – Having reliable payment gateway and alternate options available

* **Supply chain disruptions affecting inventory and delivery timelines.**

Strategy – Have strategy to manage inventory and reliable delivery service

* **Customer dissatisfaction** due to poor user experience or service delays.

Strategy – User friendly UI and Customer Support 24/7

* **High competition from established e-commerce platforms.**

Strategy – Provide seamless shopping experience retaining customers. Offers and discounts to attract customers.

**Business Process Overview**

**Legacy System (AS-IS)**

The legacy system process involves the employees to reach out to store to buy clothes or on common online shopping platforms where all products are available including clothes which does not provide personalized recommendations or experience to customers and no try on delivery or return policy available.



**Proposed Recommendations (TO-BE)**

The proposed system is an online store where customer can visit the online store and browse through the product catalogue or search the required products needed. There would also be personalized recommendations based on customer preferences and search history. The customer can create a wish list of products to buy for later or add to cart to buy. The customer can pay through various payment modes and receive the product at doorstep once the order is confirmed. The whole system provides a seamless shopping experience to customer at their home. The system will also provide customer support in case of issues to the order.



**Business Requirements**

* The system shall allow users to register, log in, and manage profiles.
* The website shall display a categorized product catalogue with search and filter options.
* The platform shall support various payment methods including credit/debit cards, net banking and cash on delivery
* The system shall generate real-time order tracking updates for customers.
* The website shall include a secure shopping cart and checkout process.
* The platform shall support promotional campaigns and discounts.
* The system shall store and display order history for registered customers.
* The website shall be mobile-responsive and accessible on various devices.
* The platform shall integrate with a customer support system for real-time query resolution.
* The inventory system shall update stock levels automatically upon order placement.

 **Software Requirement Specification**

 **Online Shopping Store**

**Introduction**

This document defines the software requirements for an online clothing store that allows users to browse, select, and purchase clothing items. It ensures a smooth user experience by specifying the functionalities and constraints of the system. The online clothing store will provide a platform where users can register, log in, browse clothing items, add them to their cart, place orders, and make payments. The system will also include an admin panel for managing products, users, and orders.

**Goals**

* Establish a user-friendly online platform for purchasing clothing.
* Enhance customer experience with a seamless shopping and checkout process.
* Expand market reach and increase sales revenue.
* Implement secure and reliable payment options.
* Improve operational efficiency through automation and data-driven decision-making.
* Build customer loyalty through personalized experiences and promotions
* Allow shopping from home to customers with exchange and trial available to increase reliability and comfort to customers

**Objectives**

* Launch a fully functional e-commerce website for clothes.
* Ensure a mobile-responsive design for accessibility on all devices.
* Integrate multiple payment options including credit/debit cards, digital wallets, net banking and cash on delivery services
* Develop a customer account feature for order tracking and personalized recommendations.
* Enable integration with social media platforms for marketing and engagement.

**Use Case Specification**

**Use Case 1**

|  |  |
| --- | --- |
| Use Case Name | Login |
| Use Case Description | The use case involves user entering username and password to log in to the application |
| Actors | Customer |
| Basic Flow | User Visits Web Application -> Enters Login Credentials -> Clicks Login -> Visits Homepage |
| Alternate Flow | None |
| Exception Flow  | User Visits Web Application -> Enters Login Credentials -> Clicks Login -> Incorrect Username/Password-> Forgot Username/Password |
| Pre- Conditions | User should have valid Login Id and Password |
| Post - Condition | Login Successful |
| Assumptions | None |
| Constraints | User should have registered to Login |
| Dependencies | None |
| Input | User Login Id and Password |
| Output | Display Homepage |
| Business Rules | The website is for buying only clothes online |

**Use Case 2**

|  |  |
| --- | --- |
| Use Case Name | Registration |
| Use Case Description | The use case involves user register to the online shopping web application |
| Actors | Customer |
| Basic Flow | User Visits Web Application -> Clicks Register button -> Enters Details -> Clicks Register -> Registration Successful |
| Alternate Flow  | None |
| Exception Flow | User Visits Web Application -> Clicks Register button -> Enters Details -> Clicks Register -> Invalid Id/Password/Missing Fields - >Enter Correct Data -> Registration Successful |
| Pre- Condition | User wants to register to the online web application |
| Post- Condition | User registered successfully |
| Assumptions | User has valid Email Id |
| Constraints | User should match the password criteria and no missing fields while registering |
| Dependencies | None |
| Input | User Detils |
| Output | Registration Successful/ Email to User for Successful Registration |
| Business Rules | The customer should follow the registration criteria |

**Use Case 3**

|  |  |
| --- | --- |
| Use Case Name | Search Product |
| Use Case Description | The use case involves user preforms a search for the product required |
| Actors | Customer |
| Basic Flow | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Check Details-> Proceed to Buy |
| Alternate Flow  | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Check Details-> Continue Search |
| Exception Flow | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Product details not available-> Continue Search |
| Pre- Condition | None |
| Post- Condition | User proceeds to buy the searched product |
| Assumptions | None |
| Constraints | User should search the exact name of the product |
| Dependencies | None |
| Input | Product Name |
| Output | List of similar products based on name  |
| Business Rules | The user should log in to buy the product |

**Use Case 4**

|  |  |
| --- | --- |
| Use Case Name | Add to Cart |
| Use Case Description | The use case involves user adding product to cart to buy products |
| Actors | Customer |
| Basic Flow | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Check Details-> Add to Cart -> View Cart |
| Alternate Flow  | None |
| Exception Flow | None |
| Pre- Condition | User should be able to search product |
| Post- Condition | User product visible in the cart |
| Assumptions | None |
| Constraints | The product should be available |
| Dependencies | None |
| Input | NA |
| Output | Product added to cart |
| Business Rules | None |

**Use Case 5**

|  |  |
| --- | --- |
| Use Case Name | Checkout |
| Use Case Description | The use case involves user makes payment for the products added to cart |
| Actors | Customer |
| Basic Flow | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Check Details-> Add to Cart -> View Cart-> Checkout->Make Payment->Order Placed Successfully |
| Alternate Flow  | None |
| Exception Flow | User Logs in to the Application -> Enters keyword in Search Box -> Select Product from list of results -> Check Details-> Add to Cart -> View Cart-> Checkout->Make Payment-> Unable to make payment |
| Pre- Condition | User has added products to cart |
| Post- Condition | Order Placed Successfully |
| Assumptions | User can make payment for the product |
| Constraints | User should be logged in |
| Dependencies | None |
| Input | NA |
| Output | Order Placed Successfully |
| Business Rules | User should comply with the available payment methods |

**Use Case 6**

|  |  |
| --- | --- |
| Use Case Name | Check Order Status |
| Use Case Description | The use case allows user to check status of placed order |
| Actors | Customer |
| Basic Flow | User Logs in to the Application -> View Order History -> Select Current Order -> Check Order Status |
| Alternate Flow  | None |
| Exception Flow | User Logs in to the Application -> View Order History -> Select Current Order -> Contant Customer Support |
| Pre- Condition | User has placed order successfully |
| Post- Condition | User status displayed |
| Assumptions | User order is seen in order history |
| Constraints | The order should be current order |
| Dependencies | None |
| Input | NA |
| Output | Order status displayed |
| Business Rules | None |

**Functional and Non-Functional Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Requirement Name** | **Requirement Description** | **Priority** |
| FR0001 | Login Functionality | User should be able to login to the application | 10 |
| FR0002 | Registration Functionality | User should be able to register to the application by providing personal details | 10 |
| FR0003 | Email on successful registration | User should receive email on successful registration | 9 |
| FR0004 | Search Product | User should be able to search products on various criterion such as product name, brand name etc. | 10 |
| FR0005 | View Product Details | User should be able to view details of the products such as images, description, price etc. | 9 |
| FR0006 | Add to Cart | User should be able to add multiple products to the cart and cart should be saved subsequently with the details of the product | 10 |
| FR0007 | Add to Wishlist | User should be able to add products to Wishlist | 8 |
| FR0008 | Checkout | User should be able to checkout and multiple payment option should be available  | 10 |
| FR0009 | Email/Message on Order Placed Successfully | User should receive an email/message when order placed successfully | 8 |
| FR0010 | Track Order Status | User should be able to track the order status | 9 |
| FR0011 | Customer Support | Customer support option should be available to the user | 8 |
| FR0012 | Cancel Order | User should be able to cancel order if possible | 9 |
| FR0013 | View Previous Order | User should be able to view previous order details | 8 |
| FR0014 | Order Delivered Notification  | User should be notified when order is delivered successfully | 8 |
| FR0015 | Update Profile | User should be able to update profile details | 7 |
| FR0016 | Review Order | User should be able to review ordered products | 7 |
| FR0017 | Mobile and Web Support | The application should be available on website and mobile | 8 |
| FR0018 | Notify Supply Chain | The supply chain team should be notified when order is ready to be delivered | 9 |
| NFR001 | Page Refresh Time | The page should load and refresh within a second | 8 |
| NFR002 | User Load | The application should be able to handle large amount of request without crashing | 8 |
| NFR003 | Reliability | The application should be reliable with minimum downtime, secure payment gateway and seamless shopping experience | 8 |
| NFR004 | Scalability | The application should have room for scalability | 7 |

**ER Diagram – Ticketing System**

****

**User Stories**

**Online Clothing Store**

|  |  |  |
| --- | --- | --- |
| User Story No: 1 | Tasks: 1 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO REGISTER TO THE APPLICATIONSO THAT I CAN LOGIN TO VENORA WEBSITE |
| BV: 500  | CP: 02 |
| Acceptance Criteria:Registration Screen Text Boxes for User Name, Password, Nation ID, Mobile No, Email, Address, Phone Number. Click on Register Button. Send Successful Registration Email/Text to the user |

|  |  |  |
| --- | --- | --- |
| User Story No: 2 | Tasks: 1 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO LOGIN TO THE APPLICATIONSO THAT I CAN USE FEATURES OF THE APP |
| BV: 500  | CP: 02 |
| Acceptance Criteria:Enter User Name, Password, Mobile No, Email, Address, Phone NumberClick on Register Button. Send Successful Notification to the user |

|  |  |  |
| --- | --- | --- |
| User Story No: 3 | Tasks: 1 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO RESET PASSWORDSO THAT I CAN LOGIN WITH NEW PASSWORD |
| BV: 100 | CP: 02 |
| Acceptance Criteria:Click Forgot PasswordEnter Registered Email Send reset link to emailReset password through link on email |

|  |  |  |
| --- | --- | --- |
| User Story No: 4 | Tasks: 1 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO RECEIVE EMAIL CONFIRMATINO AFTER REGISTRATIONSO THAT I CAN VERIFY MY ACCOUNT |
| BV: 100 | CP: 01 |
| Acceptance Criteria:Email Received on Successful Registration |

|  |  |  |
| --- | --- | --- |
| User Story No: 5 | Tasks: 3 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO LOGOUT FROM THE APPLICATIONSO THAT I CAN LOGOUT |
| BV: 100  | CP: 01 |
| Acceptance Criteria:Click logout button Prompt before logout to ask "are you sure you want to logout " |

|  |  |  |
| --- | --- | --- |
| User Story No: 6 | Tasks: 2 | Priority: HIGHEST |
| AS A CUSTOMERI WANT TO SEARCH AND VIEW PRODUCT SO THAT I CAN FIND RELEVNT PRODUCT EASILY |
| BV: 500  | CP: 03 |
| Acceptance Criteria:Enter text in search boxDisplay list of all the relevant products |

|  |  |  |
| --- | --- | --- |
| User Story No: 7 | Tasks: 2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO FILTER PRODUCT BY PRICE, SIZE AND COLOR SO THAT I CAN NARROW DOWN MY CHOICES |
| BV: 200  | CP: 02 |
| Acceptance Criteria:Select filter optionEnter filter criteriaProduct displayed according to the criteria |

|  |  |  |
| --- | --- | --- |
| User Story No: 8 | Tasks: 2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO SORRT PRODUCTS BY PRICE AND NEW ARRIVALS SO THAT I CAN VIEW RELEVANT PRODUCTS |
| BV: 100  | CP: 01 |
| Acceptance Criteria:Select sorting optionEnter sorting criteriaProduct sorted according to the criteria |

|  |  |  |
| --- | --- | --- |
| User Story No: 9 | Tasks: 2 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO VIEW PRODUCT DETAILSSO THAT I CAN MAKE INFORMED PURCHASE |
| BV: 100 | CP: 01 |
| Acceptance Criteria:Select productDisplay product details  |

|  |  |  |
| --- | --- | --- |
| User Story No: 10 | Tasks: 2 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO VIEW CUSTOMER RATINGS AND REVIEWS FOR A PRODUCTSO THAT I CAN ASSESS PRODUCT QUALITY |
| BV: 100 | CP: 01 |
| Acceptance Criteria:Select productSelect and check ratings and reviews  |

|  |  |  |
| --- | --- | --- |
| User Story No: 11 | Tasks: 3 | Priority: HIGH |
| AS A CUSTOMER I WANT TO ENTER SHIPPING ADDRESS AT CHECKOUTSO THAT I CAN RECEIVE PRODUCT AT CORRECT ADDRESS |
| BV: 500 | CP: 02 |
| Acceptance Criteria:Enter address at checkoutSave and select address  |

|  |  |  |
| --- | --- | --- |
| User Story No: 12 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO SELECT FROM MULTIPLE PAYMENT MODE SO THAT I CAN MAKE PAYMENT FOR THE PRODUCT CONVINIENTLY |
| BV: 500  | CP: 3 |
| Acceptance Criteria:Display payment modes, radio buttons to select payment modes, payments button. Business Rule: Can select only one payment mode |

|  |  |  |
| --- | --- | --- |
| User Story No: 13 | Tasks: 3 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO RECEIVE AN ORDER CONFIRMATION EMAIL SO THAT I KNOW MY ORDER WAS SUCCCESFULL |
| BV: 100  | CP: 1 |
| Acceptance Criteria:Receive Email when order placed successfully |

|  |  |  |
| --- | --- | --- |
| User Story No: 14 | Tasks: 3 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO APPLY DISCOUNT CODES OR COUPOUNS SO THAT I CAN AVAIL OFFERS |
| BV: 200  | CP: 2 |
| Acceptance Criteria:Enter coupon while product in cartDiscounted price should be displayed |

|  |  |  |
| --- | --- | --- |
| User Story No: 15 | Tasks: 3 | Priority: LOW |
| AS A CUSTOMERI WANT TO SAVE PAYMENT DETAILSSO THAT I CAN PAY DIRECTLY ON NEXT ORDERS |
| BV: 50 | CP: 02 |
| Acceptance Criteria:Select Payment ModeAdd Card/UPI DetailsSave Details |

|  |  |  |
| --- | --- | --- |
| User Story No: 16 | Tasks: 4 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO ADD SELECTED ITEM IN THE CART SO THAT I CAN VIEW MULTIPLE PRODUCTS IN CART |
| BV: 500  | CP: 02 |
| Acceptance Criteria:All the selected item should get displayed in the cart |

|  |  |  |
| --- | --- | --- |
| User Story No: 17 | Tasks: 4 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO ADD UPDATE OR REMOVE QUANITY IN CART SO THAT I CAN MANAGE PURCHASES |
| BV: 200  | CP: 01 |
| Acceptance Criteria:Add/Remove option available for product in cart |

|  |  |  |
| --- | --- | --- |
| User Story No: 18 | Tasks: 4 | Priority: LOW |
| AS A CUSTOMER I WANT TO ADD SELECTED ITEM IN THE WISHLISTSO THAT I CAN BUY THEM LATER |
| BV: 100  | CP: 01 |
| Acceptance Criteria:Add item to Wish listAll the selected item should get displayed in Wish list |

|  |  |  |
| --- | --- | --- |
| User Story No: 19 | Tasks: 4 | Priority: LOW |
| AS A CUSTOMER I WANT TO MOVE ITEM FROM WISHLIST TO CARTSO THAT I CAN PURCHASE THEM EASILY |
| BV: 100  | CP: 01 |
| Acceptance Criteria:Open WishlistSelect items and move to cartItem get displayed in cart |

|  |  |  |
| --- | --- | --- |
| User Story No: 20 | Tasks: 5 | Priority: HIGH |
| AS A CUSTOMERI WANT TO TRACK STATUS OF CURRENT ORDERSSO THAT I KNOW WHEN TO EXPECT DELIVERY |
| BV: 500  | BV: 500  |
| Acceptance Criteria:Click on My OrdersSelect Current OrderTrack Status and View Map |

|  |  |  |
| --- | --- | --- |
| User Story No: 21 | Tasks: 5 | Priority: HIGH |
| AS A CUSTOMER I WANT TO CANCEL MY ORDER BEFORE IT IS SHIPPEDSO THAT I CAN CHANGE MY DECISION |
| BV: 200  | CP: 01 |
| Acceptance Criteria:Select Current OrderCancel OrderConfirm Cancellation |

|  |  |  |
| --- | --- | --- |
| User Story No: 22 | Tasks: 5 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO RETURN MY ORDER SO THAT I CAN GET A REFUND OR REPLACE THE PRODUCT |
| BV: 200  | CP: 02 |
| Acceptance Criteria:Select Product OrderCheck if Product Replaceable/Select RefundSelect Product to Replace/Initiate RefundConfirm Replace/Refund |

|  |  |  |
| --- | --- | --- |
| User Story No: 23 | Tasks: 5 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO DOWNLOAD INVOICE SO THAT I CAN KEEP RECORD OF PURCHASE |
| BV: 100  | CP: 02 |
| Acceptance Criteria:Select Current OrderBilling InfoDownload Invoice |

|  |  |  |
| --- | --- | --- |
| User Story No: 24 | Tasks: 5 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO VIEW ORDER HISTORY SO THAT I CAN VIEW THE LIST OF ORDERS |
| BV: 500  | CP: 02 |
| Acceptance Criteria:View Order, Display list of orders in the tabular form |

|  |  |  |
| --- | --- | --- |
| User Story No: 25 | Tasks: 5 | Priority: LOW |
| AS A CUSTOMER I WANT TO SHARE MY FEED BACK FOR THE ORDERED PRODUCTSO THAT I CAN SHARE RATING AND COMMENTS FOR THE PRODUCT |
| BV: 10 | CP: 02 |
| Acceptance Criteria:Select ProductEnter and Submit Review and Comment |

|  |  |  |
| --- | --- | --- |
| User Story No: 26 | Tasks: 6 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO UPDATE PROFILE INFORMATIONSO THAT I MY DETAILS ARE ACCURATE |
| BV: 100 | CP: 02 |
| Acceptance Criteria:Select User ProfileEdit ProfileConfirm Details |

|  |  |  |
| --- | --- | --- |
| User Story No: 27 | Tasks: 6 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO SAVE MULTIPLE SHIPPING ADDRESSESSO THAT CAN CHOOSE CONVINIENT ADDRESS |
| BV: 100 | CP: 02 |
| Acceptance Criteria:Select User ProfileAdd AddressSave Address |

|  |  |  |
| --- | --- | --- |
| User Story No: 28 | Tasks: 6 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO SAVE MY PREFERRED CLOTHING SIZESO THAT CAN RECEIVE RELEVANT RECOMMENDATIONS |
| BV: 100 | CP: 01 |
| Acceptance Criteria:Select ProfileAdd preferencesAdd and save preferred size |

|  |  |  |
| --- | --- | --- |
| User Story No: 29 | Tasks: 7 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO CONTACT CUSTOMER SUPPORT SO THAT I CAN RESOLVE MY QUERIES |
| BV: 200  | CP: 02 |
| Acceptance Criteria:Select Customer SupportChat with the Assigned Support Executive  |

|  |  |  |
| --- | --- | --- |
| User Story No: 30 | Tasks: 7 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO REPORT ISSUE WITH A PRODUCT OR ORDER SO THAT I CAN GET ASSISTANCE |
| BV: 200  | CP: 02 |
| Acceptance Criteria:Select Product or OrderReport IssueSelect Issue and Send Details |