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.**

**Business Requirement Document (BRD)**

**Project Name** – Dodla Dairy Application

**Company Name –** APT IT Solution Pvt. Ltd.

132/26, Hinjewadi Street,

Pune - 411027

**Version** – 1.0

**Date** – 02/01/2025 **Prepared By** – Ms. Jyoti Shewale

**Contents**

|  |  |
| --- | --- |
| 1. | Document Revisions |
| 2. | Approvals |
| 3. | RACI Chart for This Document |
|  | 3.1 Codes Used in RACI Chart |
|  | 3.2 RACI Chart |
| 4. | Introduction |
|  | 4.1. Background |
|  | 4.2. Business Goals |
|  | 4.3. Business Objectives |
|  | 4.4. Business Rules |
|  | 4.5. Project Objective |
|  | 4.6. Project Scope |
|  | 4.6.1. In Scope Functionality |
|  | 4.6.2. Out Scope Functionality |
| 5. | Assumptions |
| 6. | Constraints |
| 7. | Risks |
| 8. | Business Process Overview |
|  | 8.1 Legacy System (AS-IS) |
|  | 8.2 Proposed Recommendations (TO-BE) |
| 9. | Business Requirements |
| 10. | Development Plan |
| 11. | Resource Plan |
| 12. | Appendices |
|  | 13.1. List of Acronyms |
|  | 13.2. Glossary of Terms |
|  | 13.3. Related Documents |
|  |  |

1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document** |
| 02/01/2025 | 1.0 | Initial Draft |
|  |  |  |
|  |  |  |

1. **Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Mr. A. Pillai  Mr. R. Purohit | Initial Draft |  | 02/01/2025 |
| Business Owner | Mr. S. Patnaik |  |  |  |
| Project Manager | Ms. M. Wagh |  |  |  |
| System Architect | Ms. R. Thakur |  |  |  |
| Development Lead | Mr. P. Pendse |  |  |  |
| Quality Lead | Ms. S. Mathur |  |  |  |
| Content Lead | Mr. D. Kumar |  |  |  |

1. **RACI Chart for This Document**

The RACI chart identifies the persons who need to be contacted whenever changes are

made to this document. RACI stands for Responsible, Accountable, Consulted, and Informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project.

* 1. **Codes Used in RACI Chart**

**R-Responsible,** **A-Accountable, C-Consulted, I-Informed**

* 1. **RACI Chart**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Development Activity/Deliverables** | **R** | **A** | **C** | **I** |
| Project Planning | PM | Stakeholder, sponsor | BA | Development Team |
| Requirement Gathering, Validating & Prioritizing | BA | PM | Stakeholder | Development Team |
| Requirement Modelling | BA | PM | Stakeholder | Development Team |
| Designing- system architecture, detailed design | Technical leader, Designer | PM | BA | Development Team |
| Development | Developer | Technical Lead | QA team | PM |
| Testing | QA Team | QA Lead | Developer | PM |
| Facilitating UAT | Business Stakeholders  UAT Lead | PM | BA | Team Members, Project Sponsor |
| Maintenance | Support Team | Technical Lead | Developer | PM |

**4. Introduction**

**4.1. Background**

In the current era, the revolution of internet changes the whole retail industry. This change provides consumer the browsing freedom, selecting and purchasing freedom from the comfort of their homes. This revolution eliminates geographical constraints, offers a wide variety of products at affordable pricing. Dodla Dairy application would like to provide platform where buyers can be benefited with the same.

**4.2. Business Goals**

Business goal revolves around major aspirations that align with future growth, customer satisfaction, inventory management and built a market presence.

Some major goals are

* Inventory Management
* Enhance Customer Experience
* Increase Market Reach
* Build Brand Recognition
* Drive Long-Term Growth
* Maximize Revenue and Profitability
* Customer Satisfaction

**4.3. Business Objectives**

Business objective should be Specific, Measurable, Achievable, Relevant, and Time-bound (SMART), which helps organizations track progress and ensure alignment with their overall business goals. Some major business objectives are

* Improve inventory accuracy
* Streamline order fulfilment
* Customer satisfaction
* Increase operational efficiency

**4.4. Business Rules**

A business rule for Dodla Dairy application defines the policies, guidelines, or conditions that dictate how the system should function within an organization's processes. Here's an example of a business rule that could apply.

|  |  |
| --- | --- |
| 1. | User Registration & Authentication |
|  | 1. User must provide a valid email address and password to create an account 2. Password/Reset Password must be at least 8 characters long with a combination of letters, numbers and special characters |
| 2. | Product Management |
|  | 1. Product details must include a Title, Description, Price and Stock availability before being listed 2. Items marked as “Out of Stock” can’t be added to the cart 3. Discounted prices must display the original price and the percentage discount applied |
| 3. | Order Placement |
|  | 1. Users must provide a complete shipping address and contact number during checkout 2. Order can only be placed if payment is successfully processed 3. A confirmation email must be sent to the user upon successful order placement |
| 4. | Pricing & Payment |
|  | 1. All prices must include applicable taxes unless explicitly stated otherwise 2. Multiple payment methods must be supported e.g. Credit Card, PayPal, Debit Card, COD etc. 3. Refunds for cancelled orders will be processed within 5 business days |
| 5. | Shipping & Delivery |
|  | 1.Orders must be shipped within ½ business days of payment confirmation  2. Customer should receive email confirmation  3. Delivery tracking information must be shared with customers via email or through application  4. Free shipping is available for orders over Rs.500 and above |
| 6. | Promotion & Discount |
|  | 1. Promo codes must be applied during checkout and can’t be redeemed post purchase 2. Discount can’t be combined unless explicitly stated in the promotion terms 3. Loyalty points earned can only be redeemed for future purchase. |
| 7. | Return & Refund |
|  | 1. Customer can return items if they meet return condition (e.g. unused, original packaging, expired) 2. Refund will be issued to the original payment method |
| 8. | Security and Privacy |
|  | 1. User data must be encrypted during transmission and storage. 2. Personal data will not be shared with third parties without user consent, except for order processing. |
| 9 | Inventory Management |
|  | 1. Inventory quantities must be updated in real-time following every transaction 2. Only authorized personnel can adjust stock levels 3. Low-stock alerts are triggered when inventory falls below the pre-defined minimum threshold |
| 10 | User Management |
|  | 1. Access to specific system modules is restricted based on user roles 2. Audit logs must record every user action within the system |

**4.5. Project Objective**

Objective of this project is to develop user friendly, secure and scalable online platform to enable seamless inventory management, product browsing, purchasing and secure payment.

Some key objectives are

1. Improve Inventory Accuracy – achieve a 99% accuracy rate in inventory records to reduce stock shortage and overstocking
2. Streamline Order Fulfilment – Reduce order processing time by 30% through automated workflows
3. Enhance Customer Experience – enable real time order tracking and ensure 95% on time delivery
4. Increase Operational Efficiency – decrease manual interventions by 40% by integrating automated systems

**4.6. Project Scope**

**4.6.1. In Scope Functionality**

* User Management- User role and permission for inventory and delivery operations
* Providing searching and filtering facility
* Product Catalog – Management of product catalog with details
* Shopping Cart – Adding, deleting, managing quantity and ordering product from cart
* Payment Processing – Secure payment process is the one of the prime focus
* Development of Inventory Management module for real time stock tracking
* Implementation of an order processing system integrated with inventory data
* Delivery scheduling and tracking functionality for customers and internal stakeholders
* Provide User Reviews and Ratings
* Sending Notifications and Alerts
* Proving customer support as and when required
* Report Generation

**4.6.2. Out Scope Functionality**

Out-of-scope functionality features and capabilities that will not be included in the Dodla Dairy application due to either time constraint, technical complexity, budget or alignment with project objectives.

Some out-of-scope functionality features and capabilities are

* Mobile App Development
* AI-driven product recommendations based on user behaviour.
* Dynamic pricing algorithms to offer personalized discounts.

**5.** **Assumptions**

Some assumptions for Dodla Dairy application are

* Users must have internet connection to use this application
* User is familiar with online shopping platform
* All product information will be provided by the application
* Application should give basic functionalities like searching, filtration, cart management and secure payment
* Third party gateway provider will be chosen and integrated without delay
* Application will not hang if user usage gets increased
* External services for payment, notifications or shipment tracking will be reliable and can meet expectation
* Customer support will be available 24/7

**6. Constraints**

Constraints are restrictions or limitations. Some constraints for Dodla Dairy application are

* Only the functionalities defined as in-scope will be developed during the initial phase
* The development team has a limited number of developers, designers, and testers available for the project
* Enhancements and additional features will be deferred to future releases.
* The application must support a minimum of 10000 concurrent users at launch
* Hosting and server resources are limited to the allocated infrastructure budget, which may restrict scalability
* Integration with third party services is dependent on external provider timeline & reliability
* The application must comply with regional data protection laws (e.g., GDPR, CCPA), which may affect how user data is handled.
* Payment processing must adhere to PCI DSS standards, adding complexity to the integration
* Deadlines for milestone deliverables (e.g., prototype, testing, and final deployment) are non-negotiable.

**7. Risks**

A risk is something that could affect the success or failure of a project. Analyse risks regularly as the project progresses. While you may not be able to avoid every risk, you can limit each risk’s impact on the project by preparing for it beforehand.

All risks need careful planning and mitigation strategies. Some of the risk could be

1. **Delay in requirement gathering** – As admin and inventory staff in unaware of any kind of inventory system so unable to give exact requirement

**What to do with risk? -** For that conduct stakeholder workshop early in the project

1. **Integration Risk** – Can face some integration issues with third party like for notifications. delivery team and payment gateway

**What to do with risk? -** Perform compatibility testing in early stages

1. **Transitional Risk** – Admin or inventory staff may resist to this change

**What to do with risk? -** For that need to provide training and change management support

1. **Data Security Breaches** – Data security is one of the major risks in online platform

What to do with risk? - Enforce strict security protocols and audits

1. **Technical Downtime** – online systems always have the risk of technical downtime

**What to do with risk?** - Set up redundant systems and regular maintenance

**8.Business Process Overview**

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

Currently, customers come to the shop or order the product on phone and it has been delivered manually. After receiving order, stock availability is checked manually and if store don’t have ordered product, then store will call customer for informing about non availability of product. If product is available then paper based pickup list are created which will increase the risk of errors.

Delivery routes are planned manually and there is no real time communication between delivery team and customer. Also, no any digital confirmation for successful deliveries.

Inventory tracking is performed manually using spreadsheets. Stock levels are updated weekly, leading to potential inaccuracies. Also, there is limited visibility of inventory across multiple locations.

In current era and in the world of internet, everything is digitalized. Inventory should be managed very well for smooth operations; customer can buy things online and get it delivered without any trouble. So, there is need to have a system where inventory management will get smooth and customer can buy things online as per their convenience.

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

Proposed system provides a user-friendly platform that enables customers to browse different kinds of ice creams and milk products, can search for particular product, buy product, can pay online, receives notification after successful payment processing, tracking of product and get it delivered seamlessly.

All features are categorised into Inventory Management, Cart Management, Order Processing and Delivery Management.

1. **Business Requirements**

Business requirements are high level needs and goal that a business needs to achieve with a specific project. These requirements focus on the "why" and "what" of a project rather than the "how".

**Functional Requirements**

1. User Management

* + - Buyers, admin, supplier registration with email, phone or social media account
    - Buyers, admin, supplier login/logout and profile management
    - Password recovery and account security settings
    - Role-based access controls (e.g. Buyer, admin, inventory staff, delivery team).
    - Audit trail for inventory and delivery operations.

2. Product Catalog

* Display product with detailed information (name, description, price, images, reviews)
* Advanced search and filtering options (e.g. by price, brand, rating, discount offered, availability)

3. Shopping Cart

* Add, remove or update the quantity of items in the cart
* Move item from cart to wish-list
* Display total cost including taxes, discount, promotion code applied and delivery charges applied

1. Checkout Process Management

* Collect and validate shipping and billing information.
* Apply promo codes or discounts during checkout.
* Multiple payment options (credit/debit cards, digital wallets, cash-on-delivery).

1. Payment Processing

* Secure payment gateway integration.
* Support for multiple currencies and payment methods.
* Payment confirmation and invoice generation.

1. Inventory Management

* Adding new product to the inventory
* Real-time stock updates based on incoming and outgoing inventory.
* Alerts for low stock levels with configurable thresholds.
* Categorization of inventory by type, location, and status.

1. Order Management

* Integration with the inventory module to validate stock availability.
* Automated generation of pick lists for order fulfilment.
* Order prioritization based on delivery deadlines.
* Real time order status updates (e.g. processing, shipped and delivered)
* Cancel or modify orders within a specified timeframe.

1. User Reviews and Ratings

* Allow users to rate and review purchased products.
* Display average ratings on product page.

1. Notifications and Alerts

* Send order confirmation, shipment updates, and delivery notifications via email or push notifications.
* Alert users about discounts, promotions, and new arrivals.

1. Customer Support

* Live chat integration for real-time assistance.
* FAQ section and help articles for common queries.
* Ticketing system for escalated issues.

1. Report Generation

* Inventory turnover rate, stock aging, and order fulfilment metrics.
* Delivery performance, including on-time delivery rates and delays.
* Customizable reports for operational insight

**Non-Functional Requirements**

1. Performance
   1. Support at least 10000 concurrent users during peak hours
   2. Ensure page load time under 3 sec for optimal user experience
2. Security
   1. Protect sensitive customer data with encryption and comply with all necessary regulations
   2. Use HTTPS for secure data transmission
3. Scalability
   1. Design the system to handle future growth in users and product inventory
4. Accessibility
   1. Ensure the platform adheres to accessibility standards for users

**10. Development Plan**

For developing the application, we need to have a neat development plan which will outline the development phases, their respective tasks and duration required to complete the phase.

**Phase 1. Requirement Gathering and Analysis**

Required time frame – 2 months

Tasks – Conduct workshops with stakeholders

Finalize detailed functional and technical requirements

**Phase 2. Analysis, Design and Prototyping**

Required time frame – 3 months

Tasks – Design System Architecture

Create wireframes for user interfaces

**Phase 3. Development**

Required time frame – 6 months

Tasks – Development of application

**Phase 4. Testing**

Required time frame – 3 months

Tasks – Prepare Test Case Specification documents

Prepare Test Cases

Perform unit, integration, system and acceptance testing

Conduct User Acceptance Testing (UAT)

**Phase 5. Deployment and Training**

Required time frame – 1month

Tasks – Deploy the application at client side

Provide training sessions to the end users

1. **Resource Plan**

**Human Resource**

1. **Project Manager-** 1 (Oversees project execution and ensures timelines are met)
2. **Business Analyst –** 2 (Requirement Gathering & Documentation)
3. **Developers** – 5 (Backend and Frontend Development)
4. **QA Tester –** 2 (System and Integration Testing)
5. **UI/UX Designer –** 1(User Interface Design)
6. **Trainers –** 2 (End User Training and Documentation)

**Tools and Technologies**

1. **Programming Language –** Python, JavaScript
2. **Database –** MySQL
3. **Frameworks –** Django/Flask for Backend, React/Angular for frontend
4. **Mapping and Routing –** Google Map API
5. **Hosting -** AWS

**12. Appendices**

**12.1. List of Acronyms**

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| BRD | Business Requirements Document |
| RTM | Requirements Traceability Matrix |
| SRS | Software Requirements Specification |
| UI | User Interface |
| API | Application Programming Interface |
| DBMS | Database Management System |
| KPI | Key Performance Indicator |
| QA | Quality Assurance |
| HTTPS | Hypertext Transfer Protocol Secure |
| PCI | Payment Card Industry |
| DSS | Data Security Standards |
| GDPR | General Data Protection Regulation |
| CCPA | California Consumer Privacy Act |

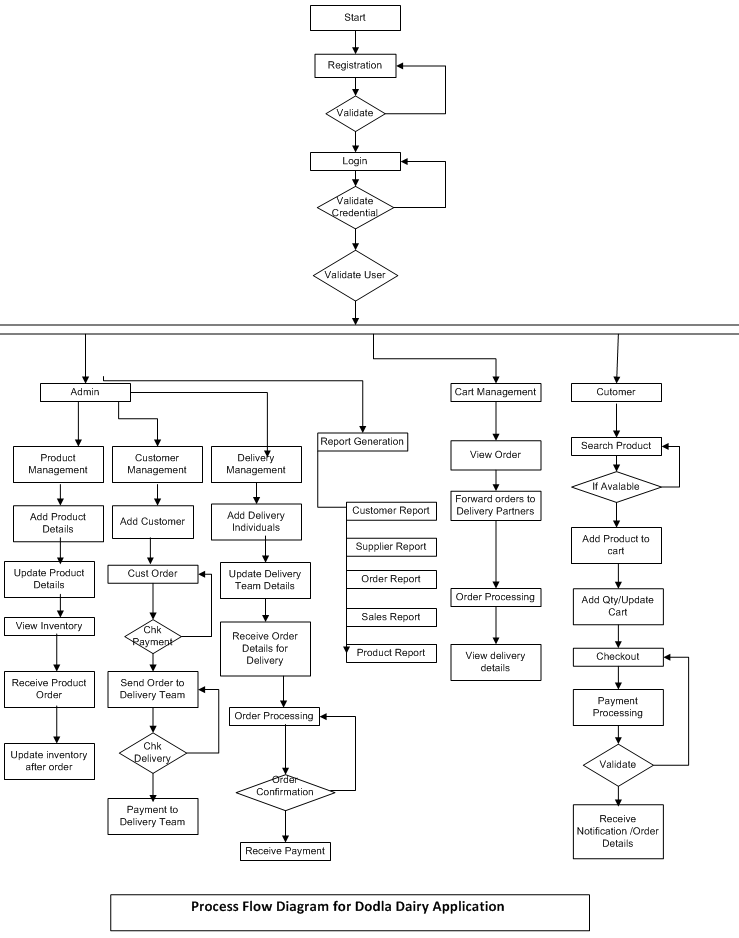
**12.2. Glossary of Terms**

|  |  |
| --- | --- |
| **Term** | **Definition** |
| **Business Requirement** | A specific need required by the business to achieve its objectives. |
| **Functional Requirement** | A specific function or behaviour that the system must perform. |
| **Non-Functional Requirement** | A quality attribute that the system must adhere to, e.g. performance or security. |
| **Use Case** | A description of how users will interact with the system to achieve a specific goal. |
| **Stakeholder** | Any individual or group that has an interest or influence in the project outcomes. |
| **Traceability Matrix** | A tool to map requirements to project deliverables, test cases, or design artifacts. |

**12.3. Related Documents**

|  |  |  |
| --- | --- | --- |
| **Document Name** | **Description** | **Link / Reference** |
| **Business Requirements Document (BRD)** | The core document detailing the business needs and requirements. | [Link to BRD] |
| **Software Requirements Specification (SRS)** | Describes the functional and non-functional requirements in technical detail. | [Link to SRS] |
| **Use Case Documentation** | Detailed scenarios of how the system will be used by different actors. | [Link to Use Cases] |
| **Stakeholder Interviews** | Record of stakeholder meetings and discussions capturing business goals. | [Link to Interviews] |
| **Market Research Report** | Analysis and findings that support the need for the project. | [Link to Market Research] |
| **System Design Document** | High-level system design based on the requirements. | [Link to Design Document] |

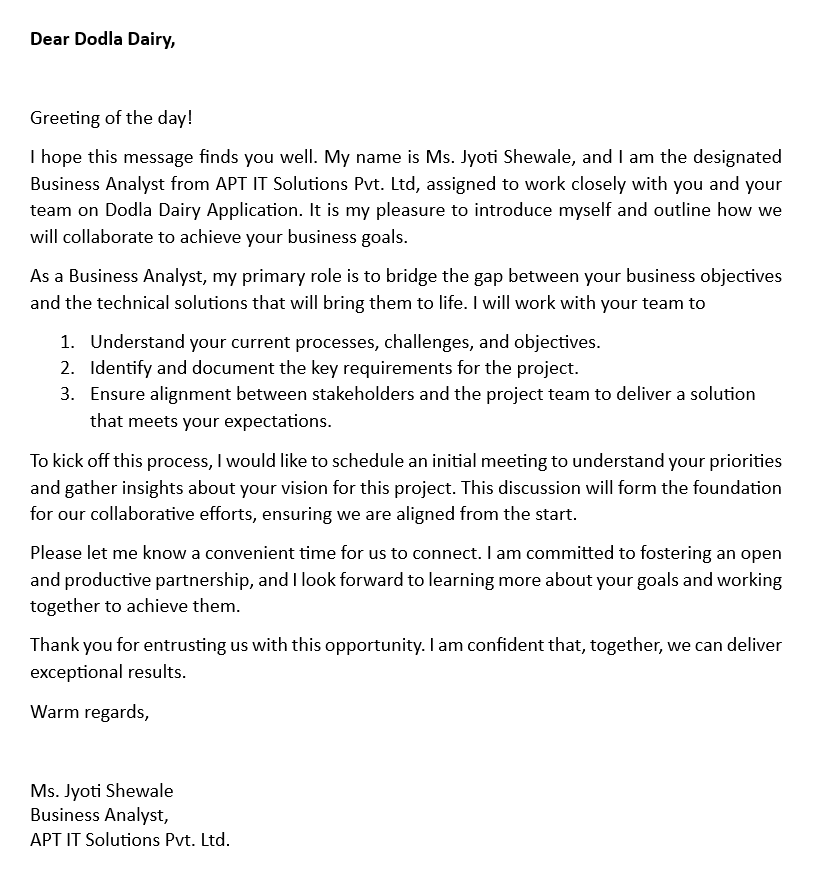
**2. Prepare process flow diagram using your imagination.**

****

**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.**



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

**Business Requirement Document (BRD)**

**Project Name** – AtoZMart.com

**Company Name –** APT IT Solutions Pvt. Ltd. **Client Name** – Metro Retail

132/26, Hinjewadi Street,

Pune - 411027

**Version** – 1.0

**Date** – 02/01/2025

**Prepared By** – Ms. Jyoti Shewale

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|  |  |
| --- | --- |
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|  | 3.1 Codes Used in RACI Chart |
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| 4. | Introduction |
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|  | 4.5. Project Objective |
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|  | 4.6.1. In Scope Functionality |
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The RACI chart identifies the persons who need to be contacted whenever changes are

made to this document. RACI stands for responsible, accountable, consulted, and informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project.

* 1. **Codes Used in RACI Chart**

|  |  |
| --- | --- |
| **R-Responsible** | Responsible for creating this document |
| **A-Accountable** | Accountable for accuracy of this document |
| **C-Consulted** | Provides input |
| **I-Informed** | Must be informed of any changes |

* 1. **RACI Chart**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Development Activity/Deliverables** | **R** | **A** | **C** | **I** |
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| Facilitating UAT | Business Stakeholders  UAT Lead | PM | BA | Team Members, Project Sponsor |
| Maintenance | Support Team | Technical Lead | Developer | PM |

**4. Introduction**

**4.1. Background**

In the current era, the revolution of internet changes the whole retail industry. This change provides consumer the browsing, selecting and purchasing freedom from the comfort of their homes. This revolution eliminates geographical constraints, offers a wide variety of products at affordable pricing. AtoZMart would like to provide one more platform where buyers and sellers can be benefited with the same.

**4.2. Business Goals**

The business goal of an online shopping revolves around major aspirations that align with growth, customer satisfaction and market presence. Some major goals are

* Enhance Customer Experience
* Increase Market Reach
* Build Brand Recognition
* Drive Long-Term Growth by Focusing on Innovation
* Employee Engagement and Retention,
* Maximize Revenue and Profitability.

**4.3. Business Objectives**

Business objective should be Specific, Measurable, Achievable, Relevant, and Time-bound (SMART), which helps organizations track progress and ensure alignment with their overall business goals. Some major business objectives are

* Reduce average page load time to under 3 seconds
* Achieve a 95% customer satisfaction rate as measured through post-purchase surveys.
* Implement a 24/7 customer support
* Increase website traffic by 30% within six months
* Collaboration with at least 50 new vendors within six months
* 10% increase in repeat customer purchase over the next quarter through a loyalty program

**4.3. Business Rules**

A business rule for an online shopping defines the policies, guidelines, or conditions that dictate how the system should function within an organization's processes. Here's an example of a business rule that could apply to an online shopping system

|  |  |
| --- | --- |
| **1.** | **User Registration & Authentication** |
|  | 1. User must provide a valid email address and password to create an account 2. Password must be at least 8 characters long with a combination of letters, numbers and special characters. |
| **2.** | **Product Management** |
|  | 1. Product details must include a Title, Description, Price and Stock availability before being listed 2. Items marked as “Out of Stock” can’t be added to the cart 3. Discounted prices must display the original price and the percentage discount applied |
| **3.** | **Order Placement** |
|  | 1. Users must provide a complete shipping address and contact number during checkout 2. Order can only be placed if payment is successfully processed 3. A confirmation email must be sent to the user upon successful order placement |
| **4.** | **Pricing & Payment** |
|  | 1. All prices must include applicable taxes unless explicitly stated otherwise 2. Multiple payment methods must be supported e.g. Credit Card, PayPal, Debit Card, COD etc. 3. Refunds for cancelled orders will be processed within 7 business days |
| **5.** | **Shipping & Delivery** |
|  | 1.Orders must be shipped within ½ business days of payment confirmation  2. Customer should receive email confirmation  3. Delivery tracking information must be shared with customers via email or through application  4. Free shipping is available for orders over Rs.500 and above |
| **6.** | **Promotion & Discount** |
|  | 1. Promo codes must be applied during checkout and can’t be redeemed post purchase 2. Discount can’t be combined unless explicitly stated in the promotion terms 3. Loyalty points earned can only be redeemed for future purchase. |
| **7.** | **Return & Refund** |
|  | 1. Customer can return items within 15 days of delivery if they meet return condition (e.g. unused, original packaging) 2. Refund will be issued to the original payment method after quality check 3. Digital products are non-refundable unless defective |
| **8.** | **Security and Privacy** |
|  | 1. User data must be encrypted during transmission and storage. 2. Personal data will not be shared with third parties without user consent, except for order processing. |

**4.4. Project Objective**

Objective of this project is to develop user friendly, secure and scalable online shopping platform to enable seamless product browsing, purchasing and order tracking for customers.

Some key objectives are

* + - 1. Provide User Friendly Platform - Customer can have freedom to navigate and access the platform across various devices like desktop, mobile and tablet
      2. Streamline Order Fulfilment – Reduce order processing time by 30% through automated workflows
      3. Enhance Customer Experience – enable real time order tracking and ensure 95% on time delivery
      4. Increase Operational Efficiency – decrease manual interventions by 40% by integrating automated systems
      5. Customer Support - Integrate live chat support and a comprehensive FAQ section for user assistance

**4.5. Project Scope**

**4.6.1. In Scope Functionality**

1. User Management

2. Product Catalog Management

3. Shopping Cart Management

4. Checkout and Payment Processing Management

5. Notifications and Alerts

6. Customer Support

**4.6.2. Out Scope Functionality**

Out-of-scope functionality features and capabilities that will not be included in the online shopping application due to either time constraint, technical complexity, budget or alignment with project objectives. Some out-of-scope functionality features and capabilities are

* Virtual try-on features for products like clothing or accessories.
* AR visualization for home goods or furniture placement.
* Mobile App Development
* AI-driven product recommendations based on user behaviour.
* Dynamic pricing algorithms to offer personalized discounts.
* Not selling highly regulated items like firearms, alcohol, or prescription medications

**5.Assumptions**

Assumptions of online shopping application are

* Users must have internet connection to use this application
* User is familiar with online shopping platform
* All product information will be provided by the application
* Application should give basic functionalities like searching, filtration, cart management and secure payment
* Third party gateway provider will be chosen and integrated without delay
* Application will not hang if user usage get increased
* External services for payment, notifications or shipment tracking will be reliable and can meet expectation
* Customer support will be available 24/7

**6. Constraints**

Constraints are restrictions or limitations. Some constraints for online shopping application are

* Hosting and server resources are limited to the allocated infrastructure budget, which may restrict scalability
* Integration with third party services is dependent on external provider timeline & reliability
* The application must support a minimum of 10000 concurrent users at launch
* Page load time must not exceed 3 seconds which require careful design and efficient backend operations
* The application must comply with regional data protection laws (e.g., GDPR, CCPA), which may affect how user data is handled.
* Payment processing must adhere to PCI DSS standards, adding complexity to the integration
* Enhancements and additional features will be deferred to future releases.
* Only the functionalities defined as in-scope will be developed during the initial phase
* The development team has a limited number of developers, designers, and testers available for the project
* Deadlines for milestone deliverables (e.g., prototype, testing, and final deployment) are non-negotiable.

**7. Risks**

A risk is something that could affect the success or failure of a project. Analyse risks regularly as the project progresses. While you may not be able to avoid every risk, you can limit each risk’s impact on the project by preparing for it beforehand.

Strategies include the following

* Avoid: Do something to eliminate the risk.
* Mitigate: Do something to reduce damage if risk materializes.
* Transfer: Pass the risk up or out to another entity.
* Accept: Do nothing about the risk. Accept the consequences.

The risks for online shopping can be

|  |  |  |
| --- | --- | --- |
| **No.** | **Risks** | **Mitigation** |
| 1 | **Privacy Concerns** | Cleary state data usage policies, obtain explicit user consent and ensure compliance with data protection laws |
| 2 | **Data Security Breaches**- customer data like payment information, personal details and addresses could be stolen by hackers. | Implement strong encryption (HTTP, TLS) , regular security audits and compliance with PCI DSS Standards. |
| 3 | **Downtime and Performance Issues** – High traffic during sales or promotions can lead to serve crashes or slow response time | Implement scalable cloud solutions and load testing to ensure the application can handle peak traffic. |
| 4 | **Supply Chain Risks** – Delays in order processing, inventory inaccuracies or delivery issues can affect customer trust | Integrate real time inventory systems, optimize order processing and partner with reliable logistics provider |
| 5 | **Payment gateway Failures** – Technical issues with payment gateways can result in failed transaction | Use redundant payment gateways and monitor their performance closely. |
| 6 | **Fake Reviews and Products** – Fake reviews or counterfeit products can harm the platform’s reputation | Implement review moderation system and verify sellers before onboarding them |

**8.Business Process Overview**

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

Now a days customers visit the shop and buy a thing. For buying a furniture customer visit furniture shop, for buying kids clothing customer visit kids clothing shop, for buying a toys customer visit a toy shop and like that. From the business owners’ point of view, this will increase their monthly rent of the shop and he also need to maintain the lots of inventories and from customers point of view, customer need to visit so many shops for different purposes so this will be time consuming process.

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

So, there is need to have an application which provides a platform where buyers can buy things and sellers can sell things. Buyers and sellers need a user-friendly online shopping platform that enables customers to browse, search, purchase, sell and track product seamlessly.

Buyers can get a platform to explore various range of products, can purchase, track the order and receive the notifications. Sellers can also get a platform where they can expand their business and sell their products.

**9. Business Requirements**

Business requirements are high level needs and goals of application that must achieve to align with business strategy.

**Functional Requirements**

1. User Management

* Buyers/Sellers registration with email, phone or social media account
* Buyer/Sellers login/logout and profile management
* Password recovery and account security settings

2. Product Catalog

* Display product with detailed information (name, description, price, images, reviews)
* Advanced search and filtering options (e.g. by price, brand, rating, discount offered, availability)

3. Shopping Cart

* Add, remove or update the quantity of items in the cart
* Move item from cart to wish-list
* Display total cost including taxes, discount, promotion code applied and delivery charges applied

4. Checkout Process Management

* Collect and validate shipping and billing information.
* Apply promo codes or discounts during checkout.
* Multiple payment options (credit/debit cards, digital wallets, cash-on-delivery).

5. Payment Processing

* Secure payment gateway integration.
* Support for multiple currencies and payment methods.
* Payment confirmation and invoice generation.

6. Order Management

* Real time order status updates (e.g. processing, shipped and delivered)
* Track shipment with live tracking details.
* Cancel or modify orders within a specified timeframe.

1. User Reviews and Ratings

* Allow users to rate and review purchased products.
* Display average ratings and user feedback on product pages.
* Moderate reviews for inappropriate content.

1. Notifications and Alerts

* Send order confirmation, shipment updates, and delivery notifications via email or push notifications.
* Alert users about discounts, promotions, and new arrivals.

1. Customer Support

* Live chat integration for real-time assistance.
* FAQ section and help articles for common queries.
* Ticketing system for escalated issues

**Non-Functional Requirements**

1. Performance

Support at least 10000 concurrent users during peak hours

Ensure page load time under 3 sec for optimal user experience

1. Security

Protect sensitive customer data with encryption and comply with all necessary regulations

Use HTTPS for secure data transmission

1. Scalability

Design the system to handle future growth in users and product inventory

1. Accessibility

Ensure the platform adheres to accessibility standards for users with disabilities

**10. Appendices**

**10.1. List of Acronyms**

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| BRD | Business Requirements Document |
| RTM | Requirements Traceability Matrix |
| SRS | Software Requirements Specification |
| UI | User Interface |
| API | Application Programming Interface |
| DBMS | Database Management System |
| KPI | Key Performance Indicator |
| QA | Quality Assurance |
| HTTPS | Hypertext Transfer Protocol Secure |
| FAQ | Frequently Asked Questions |
| PCI DSS | Payment Card Industry Data Security Standard |
| GDPR | General Data Protection Regulation |
| CCPA | California Consumer Privacy Act |

**10.2. Glossary of Terms**

|  |  |
| --- | --- |
| **Term** | **Definition** |
| **Business Requirement** | A specific need required by the business to achieve its objectives. |
| **Functional Requirement** | A specific function or behaviour that the system must perform. |
| **Non-Functional Requirement** | A quality attribute that the system must adhere to, e.g. performance or security. |
| **Use Case** | A description of how users will interact with the system to achieve a specific goal. |
| **Stakeholder** | Any individual or group that has an interest or influence in the project outcomes. |

**10.3. Related Documents**

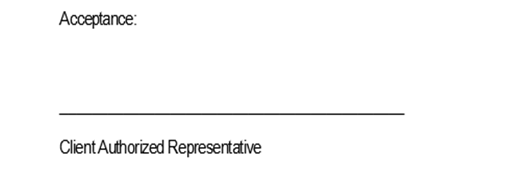
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| **Stakeholder Interviews** | Record of stakeholder meetings and discussions capturing business goals. | [Link to Interviews] |
| **Market Research Report** | Analysis and findings that support the need for the project. | [Link to Market Research] |
| **System Design Document** | High-level system design based on the requirements. | [Link to Design Document] |

**Software Requirement Specification (SRS)**

**for**

**AtoZMart.com**

**05/01/2025**

****

**Record of Revision**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Ver**  **sion** | **Date of**  **Release** | **Prepared/Revised By** | **Reviewed by** | | **Approved By** | | **Reason for Revisions** |
| **Name** | **Date** | **Name** | **Date** |
| 1 | 01/01/2025 | Ms. Jyoti Shewale | Mr. R. Purohit | 03/01/2025 |  |  |  |
|  |  |  |  |  |  |  |  |

**Table of Contents**

|  |  |
| --- | --- |
| **1** | **Introduction** |
|  | * 1. **Purpose**   2. **Scope**   3. **Definitions, Acronyms and Abbreviations**   4. **References** |
| **2** | **Overall Description** |
|  | **2.1 Project Perspective**  **2.2 Project Features**  **2.3 Benefit of proposed System**  **2.4 User Classes and Characteristics**  **2.5 Operating Environment**  **2.6 Constraints**  **2.7 Assumptions and Dependencies**  **2.8 Success Criteria** |
| **3** | **Application Requirements** |
|  | **3.1 Functional Requirements**  **3.2 Nonfunctional Requirements** |
| **4** | **System Requirements** |
|  | * 1. **Operational Requirements**   2. **Software Requirements**   3. **Hardware Requirements**   4. **Development Architecture** |
| **5** | **Appendices** |
|  | **6.1 Glossary** |
|  | **6.2 References** |

1. **Introduction.**
   1. **Purpose**

SRS document outlines functional, nonfunctional and business requirements for the development of the Online Mart application. This document servers as a guide for the development team to deliver a scalable and user-friendly e-commerce platform that meets the needs of customer and administrators.

**1.2 Scope**

Online shopping application provides a platform to sellers so that they can expand their business across the globe. Also, this platform is useful to customers who can browse, purchase and track products online. This application will provide a secure payment method and real time order tracking and personalized user experience.

* 1. **Definitions, Acronyms and Abbreviations**

**SRS** – Software Requirement Specification

**Online Mart** – Ecommerce Platform Under Development

**Admin** - Administrator Managing the Platform

**Custome**r – End User Who Will Purchase Product from Platform

**API** - Application Programming Interface

**UI**- User Interface

**1.4 References**

GDPR compliance guidelines

PCI DSS standards for payment security

WCAG 2.1 accessibility standards

ISO 27001 Information Security Management Standards

1. **Overall Description**

**2.1 Product Perspective**

The Online Mart application will be a new e-commerce platform designed to provide a seamless shopping experience for customers and efficient management tools for administrators. Online Mart application is integration points for payment gateways and delivery service providers. It will have a module architecture to facilitate scalability and easy maintenance.

**2.2 Product Features**

The Online shopping mart gives various features like

1. User Registration & Authentication
2. Product Browsing and Advanced Search
3. Shopping Cart and Wishlist Management
4. Secure Checkout and Payment Integration
5. Order Management and Tracking
6. Vendor Management and Product Listing
7. Notification via email and SMS
8. Reporting and Analytics for admin

**2.3 Benefit of proposed System**

This online mart is very helpful to buyers who want to explore and purchase products from anywhere, sellers can expand their business and administrator can automate various business process and can reduce operational cost.

Let us see the benefits of this application from Buyers, Sellers and Administrators point of view

**From Buyers point of view**

* Buyer gets a single online platform where he can explore various kinds of products like electronic items (Mobile, Laptop, Tablet, accessories etc.), Beauty and Fashion, Books, Appliances, Daily Needs etc.
* Buyer can order product at reasonable rates
* Buyer can have real time order tracking and receives notifications
* Buyer can have a secure and seamless checkout process

**From Sellers point of view**

* Can able to expand the business
* Can support the business growth

**From Administrators point of view**

* Automate various business processes, reducing operational cost
* Provide actional insights to optimize marketing and inventory strategies
* Streamlines product and inventory management through a centralized admin module.
* Offers robust reporting and analytics to monitor performance and trends.
* Reduces manual effort in handling orders and tracking shipments.

**2.4 User Classes and Characteristics**

**Seller –** Groups of individuals selling their products at affordable price

**Customers/Buyers –** Individuals purchasing products

**Administrators** – Business owners or managers responsible for product and order management

**Delivery Personnel –** Individuals who can deliver order to the customers also view and update order delivery status

**2.5 Operating Environment**

* The application will be accessible on web browsers and mobile devices (Android and iOS)
* Hosting on cloud infrastructure to ensure scalability and reliability

**2.6 Constraints**

Constraints are restrictions or limitations. Some constraints for online shopping application are

* Hosting and server resources are limited to the allocated infrastructure budget, which may restrict scalability
* Integration with third party services is dependent on external provider timeline & reliability
* The application must support a minimum of 10000 concurrent users at launch
* Page load time must not exceed 3 seconds which require careful design and efficient backend operations
* The application must comply with regional data protection laws (e.g., GDPR, CCPA), which may affect how user data is handled.
* Payment processing must adhere to PCI DSS standards, adding complexity to the integration
* Enhancements and additional features will be deferred to future releases.
* Only the functionalities defined as in-scope will be developed during the initial phase
* The development team has a limited number of developers, designers, and testers available for the project
* Deadlines for milestone deliverables (e.g., prototype, testing, and final deployment) are non-negotiable.
* Adherence to GDPR and PCI DSS regulations.
* Integration with existing third-party services for payments and shipping.

**2.7 Assumptions and Dependencies**

* Customers will have access to the internet and modern devices
* Third party services will operate reliably
* Product data (i.e. image, description, pricing) will be provided by stakeholders

**2.8 Success Criteria**

Success criteria of Online Mart is as follow

* All functional requirements are implemented and work as specified
* Seamless user experience for customers, sellers, administrators and delivery personnel
* System should support at least 10,000 concurrent users with average page load time is 3 sec
* Increase in monthly sales volume by 20% within the first year
* No major security breaches or data losses occurs post deployment
* At least 85% of users report satisfaction with the system's usability and functionality in post-launch surveys.
* A measurable increase in customer retention and sales within the first six months of launch.

**3 Application Requirements**

**3.1 Functional Requirements**

**User Management**

1. User (Buyer, Seller, Administrator) can register and login using email or social media accounts
2. User can checkout anytime
3. Admin can Add, Edit or Deactivate user account

**Product Management**

1. Admin can add, update and delete products
2. Product can be organized into categories and subcategories
3. Every product must have detailed product description, prices and images
4. User can search for any kind of product
5. Admin to create and manage promo codes, discounts and special offers based on product demand

**Shopping Cart**

1. Buyer can add items to the cart and can modify quantities
2. Cart information persist across sessions

**Checkout and Payment**

1. Validate customers details and payment information
2. Support multiple payment methods including credit/debit card, digital wallets and COD
3. Provide notification through confirmation email and receipt upon successful payment

**Order Tracking**

1. Customer can view the status of their orders in real time
2. Notifications sent for order updates (e.g. shipped, delivered)

**3.2 Nonfunctional Requirements**

1. Performance
   1. Support at least 10000 concurrent users during peak hours
   2. Ensure page load time under 3 sec for optimal user experience
2. Security
   1. Protect sensitive customer data with encryption and comply with all necessary regulations
   2. Use HTTPS for secure data transmission
3. Scalability
   1. Design the system to handle future growth in users and product inventory
4. Accessibility
   1. Ensure the platform adheres to accessibility standards for users with disabilities

**4. System Requirements**

**4.1 Operational Requirements**

* System must provide 24/7 availability
* Regular maintenance schedules must be established to ensure uptime
* Backup and disaster recovery plans must be implemented to prevent data loss.

**4.2 Software Requirements**

* Frontend – Compatibility with modern browser (e.g. Chrome, Firefox, Safari, Edge)
* Backend – Server Software
* Database – MySQL for relational database management
* Third Party Services – APIs for payment gateways, shipping and notifications
* Operating System – Linux based server environment for hosting

**4.3 Hardware Requirements**

* Server Specifications
  + Min 8 core CPU
  + 16 GB RAM
  + 500GB SSD for fast storage
* Network – High Speed Connectivity
* Client Devices
* Minimum system requirement for mobile (Android 8.0/iOS12 or newer)
* Desktop browser must support HTML5 and JavaScript
  1. **Development Architecture**

Hosted on cloud platform (e.g. AWS, Azure) with load balancing and autoscaling

1. **Appendices**

|  |  |
| --- | --- |
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| **Use Case** | A description of how users will interact with the system to achieve a specific goal. |
| **Stakeholder** | Any individual or group that has an interest or influence in the project outcomes. |
| **Traceability Matrix** | A tool to map requirements to project deliverables, test cases, or design artifacts. |
| **MoSCoW Prioritization** | A framework used to prioritize project requirements based on their necessity. |
| **Key Performance Indicator (KPI)** | A measurable value that indicates how well a system or process is achieving its objectives. |
| **Service Level Agreement (SLA)** | A formal contract outlining performance standards and expectations between a service provider and client. |
|  |  |

**References /Related Documents**

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

**Support Ticket**

The term “support Ticket” describes the interaction between a customer and service representative. A support ticket is a digital record created to track and manage a request, issue or inquiry raised by a customer or user. It is commonly used in customer support and IT service management system to ensure problems are addressed systematically and resolved efficiently.

**Ticketing Lifecycle**

The ticketing lifecycle outlines the stages a support ticket goes through from its creation to resolution. Ticketing life cycle ensures that all issues are tracked and resolved systematically. It enhances customer satisfaction by streamlining communication and resolution.

1. **Ticket Creation**

A ticket is generated when a user reports an issue or request through a customer portal, email or phone call. Details like issue description, urgency and attachments are captured.

1. **Managing Ticket (Categorization, Prioritization, Assignment)**

Categorization - The raised ticket is categorised (e.g. technical, billing)

Prioritization- The raised ticket is prioritized based on the severity and impact of the issue e.g. low, medium, high

Assignment - The raised ticket is routed to an appropriate person based on expertise

1. **Investigation and Resolution**

The assigned person investigates the issue by gathering more information, diagnosing the problem and identifying possible solutions.

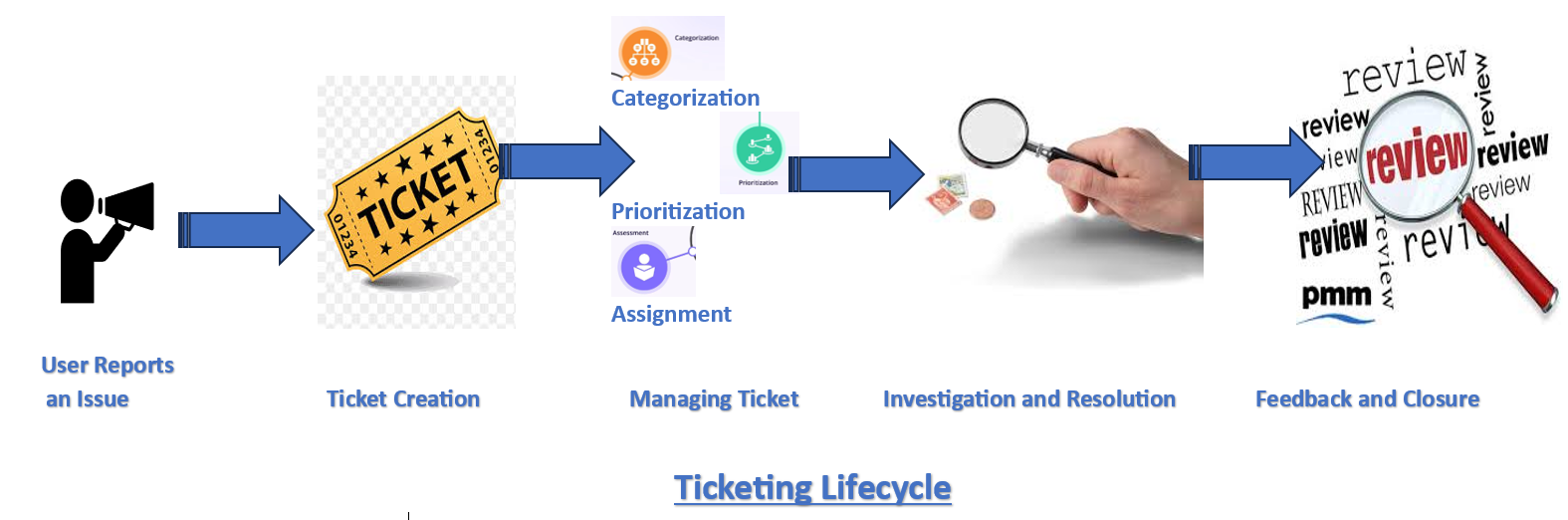
The assigned person provides a solution for reported issue. It the issue required escalation (e.g. to a senior team or external vendor), it moves to the next level of support.

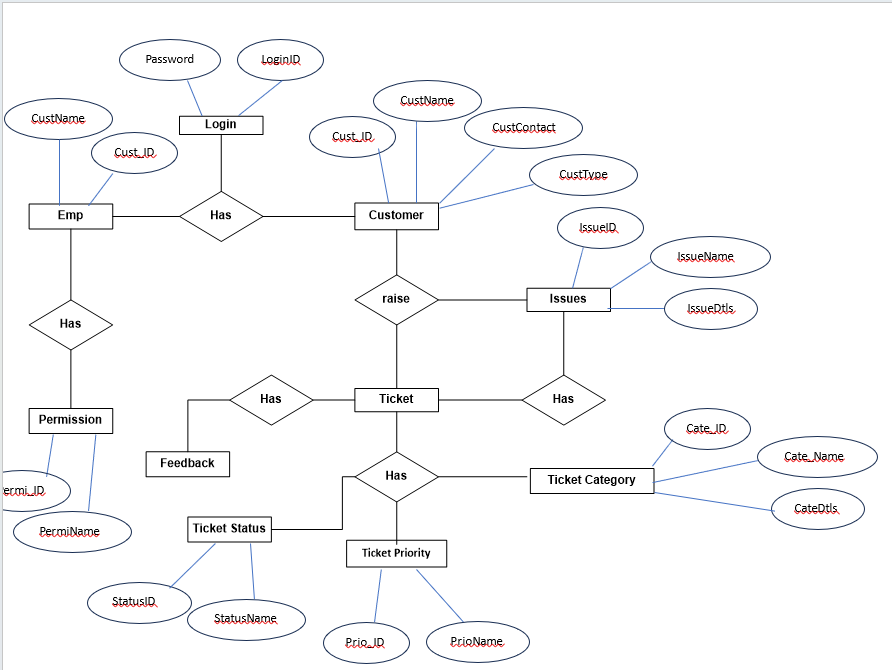
1. **Feedback and Closure**

Once resolved, the ticket is marked as “Resolved”. The customer is informed of the resolution and asked for feedback. If the customer confirms the resolution or does not respond within a certain timeframe, the ticket is closed

1. **Reopening (If need)**

If the customer is unsatisfied or the issue reoccurs, the ticket can be reopened and reprocessed.



****

**ERD for ticketing lifecycle**

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

**TASK 1- REGISTRATION AND LOGIN**

|  |  |  |
| --- | --- | --- |
| User Story No - 1 | Tasks – 1 | Priority - High |
| As a customer  I want to register  So that I can get registered and can create login | | |
| BV – 500 | CP – 02 | |
| Acceptance Criteria –  Click on sign up  The user can input required details such as name, email address, phone number, date of birth and password  The system validates all mandatory fields and displays an appropriate error message for missing or incorrect input  The email address and phone number must be unique, and the system should notify if the entered email or phone number is already registered  Password must meet security requirements (e.g., minimum length, special character)  Upon successful registration, the user receives a confirmation email  The user can activate the account by clicking the confirmation link sent to the provided email  A message confirming successful registration should appear post-completion | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 2 | Tasks - 1 | Priority - High |
| As a customer  I want to update the address  So that I can get the order to my address | | |
| BV – 200 | CP – 02 | |
| Acceptance Criteria –  The user can view their current saved address in the profile section  The user can update the address by editing the fields like street address, city, state, postal code, and country  The system validates the input and provides appropriate error messages for incorrect or incomplete entries  The user sees a confirmation message upon successfully saving the updated address  If an error occurs, the user is informed with a clear error message and a retry option  Address changes are saved immediately and are reflected in the user profile | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 3 | Tasks – 1 | Priority - High |
| As a customer  I want to login  So that I can get access | | |
| BV – 500 | CP – 02 | |
| Acceptance Criteria –  Click on sign in  Enter valid user id/email id and password  Click on submit  The system validates the presence and correctness of input  If the credentials are incorrect, an error message is displayed  Users with correct credentials are authenticated and redirected to the appropriate dashboard or homepage  Unauthorized users cannot access the system  Forgot password option  A "forgot password" link is available for users who cannot remember their credentials  Session management  Users stay logged in for the duration of the session unless they log out  An option for "remember me" is provided to extend the session duration  Security  Passwords are encrypted and not stored in plain text  Implement captcha or similar measures after multiple failed login attempts | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 4 | Tasks – 1 | Priority – High |
| As a customer  I want to reset password  So that I can change password | | |
| BV – 500 | CP – 02 | |
| Acceptance Criteria –  The login page includes a "forgot password?" link that navigates to the reset password page  Users must enter their registered email address to initiate the reset process  The system validates the email format and displays an error if it is invalid or unregistered  A password reset link is sent to the registered email with a unique, time-limited token  Clicking the reset link directs the user to a page where they can set a new password  The link expires after a set time or after it is used once  The new password must meet security requirements (e.g., minimum length, special characters)  Users receive a confirmation message once the password is successfully reset | | |

**Task 2- Cart Management**

|  |  |  |
| --- | --- | --- |
| User Story No - 5 | Tasks – 2 | Priority - High |
| As a customer  I want to add the product in the card  So that I can place an order | | |
| BV – 500 | CP – 02 | |
| Acceptance Criteria –  The user can click an "add to cart" button on the product page or list  The system updates the cart with the selected product and quantity  A confirmation message appears, showing the product has been added  Users can view their updated cart at any time to see the added product(s)  The system displays an error if the product is out of stock or cannot be added  The cart retains added products during the session, and optionally after logout, for registered users | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 6 | Tasks – 2 | Priority – Medium |
| As a customer  I want to remove the product from the cart  So that I can manage cart | | |
| BV – 200 | CP – 01 | |
| Acceptance Criteria –  The cart displays a "remove" button or icon for each product  Users can click this to remove the product from the cart  The system updates the cart immediately after removal  A confirmation message appears, stating the product has been removed  The cart recalculates the total cost and quantity dynamically after a product is removed  If the product cannot be removed due to a technical issue, the system displays an appropriate error message | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 7 | Tasks – 2 | Priority - High |
| As a customer  I want to move the product to Wishlist  So that I can manage cart | | |
| BV – 200 | CP - 01 | |
| Acceptance Criteria –  User can login first to move product to the Wishlist  The cart displays a "move to Wishlist" button or link for each product.  Clicking the button transfers the product to the Wishlist.  A confirmation message appears, stating the product has been moved to Wishlist  The product is removed from the cart and the total amount is recalculated accordingly.  If the product cannot be moved due to a technical issue, an error message is displayed, and the product remains in the cart. | | |

**Task 3 -Order Management**

|  |  |  |
| --- | --- | --- |
| User Story No - 8 | Tasks – 3 | Priority - High |
| As a customer  I want to place order  So that I can buy the product | | |
| BV – 200 | CP – 03 | |
| Acceptance Criteria –  Users can initiate the order process by clicking the "place order" button on the checkout page  The system provides various payment methods (e.g., credit card, PayPal, etc.).  Users can securely enter payment details or use saved payment methods.  Users must confirm or update their delivery address during checkout.  The system displays an order summary, including product details, quantities, prices, and applicable taxes or shipping costs.  Once the order is placed, a confirmation message is displayed with the order number.  Users receive an email or SMS confirming the order details.  After placing the order, users can access order tracking details in their profile or via a confirmation email. | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 9 | Tasks – 3 | Priority - High |
| As a customer  I want to cancel order  So that I can cancel my order | | |
| BV – 500 | CP – 03 | |
| Acceptance Criteria –  Click on order (it will display the list of orders placed)  Select your order that want to cancel  Click on cancel order  Select the reason of cancelation  Click on cancel order | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 10 | Tasks – 3 | Priority – High |
| As a customer  I want to return the product  So that I can return it | | |
| BV – 500 | CP – 02 | |
| Acceptance Criteria –  Click on order (it will display the list of orders placed)  Select product that want to return  Click on return order  Select the reason of return  Click on return | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 11 | Tasks – 3 | Priority - High |
| As a customer  I want to track the order  So that I can get the details of product delivery | | |
| BV – 200 | CP - 02 | |
| Acceptance Criteria –  Click on order (it will display the list of orders)  Select the order that want to track  The system displays the current status of the order (e.g., processing, shipped, out for delivery, delivered).  Users can view real-time updates on the order’s location and expected delivery date.  If the tracking information is unavailable, the system shows a message explaining the issue and suggests contacting support. | | |

|  |  |  |
| --- | --- | --- |
| User Story No - 12 | Tasks – 3 | Priority - Highest |
| As a customer  I want to view cart  So that I can get the details of products | | |
| BV – 200 | CP - 02 | |
| Acceptance Criteria –  Click on the cart  For any kind of change i.e. product is out of stock, change in prices, the message will be displayed like “important messages for items in your cart / following items from your cart have changed price”  The cart displays the product name, image, price, quantity, and subtotal for each item.  Users can update quantities, remove items, or move items to the Wishlist directly from the cart.  If an item becomes unavailable, the system alerts the user with options to remove or replace it.  A "proceed to checkout" button is available to start the purchase process.  If the cart is empty, the system displays a message like "your cart is empty" with a call-to-action to browse products. | | |

|  |  |  |
| --- | --- | --- |
| User Story No – 13 | Tasks - 3 | Priority - High |
| As a customer  I want to view past order history  So that I can order again | | |
| BV – 200 | CP – 02 | |
| Acceptance Criteria –  Users can access their order history from their account dashboard or a dedicated "order history" section.  The system displays a list of past orders, including order numbers, dates, statuses, and total amounts.  Users can click on an order to view detailed information such as product names, quantities, prices, delivery address, and payment methods.  Users can re-order products from past orders directly with a "re-order" button.  If no order history is available, the system displays a message like "you haven’t placed any orders yet." | | |

**Task 4- Payment**

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| User Story No - 14 | Tasks - 4 | Priority - High |
| As a customer  I want to select the payment mode  So that I can make payment of my choice | | |
| BV -500 | CP -03 | |
| Acceptance Criteria –  User can login with valid credentials  Either user can click on “buy now” of the selected product or click on checkout button  System will ask you to select the payment option showing multiple payment methods (e.g., credit/debit card, paypal, net banking, UPI, cash on delivery).  Users can select their desired payment method from the available options.  For methods requiring additional details (e.g., card details), the system validates the input for correctness and completeness.  Registered users can save their payment information for future purchases securely.  Once a payment mode is selected, it is Highlighted and included in the final order summary  If a selected payment method fails (e.g., due to server issues), the system notifies the user and provides the option to select another method. | | |

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| User Story No - 15 | Tasks – 4 | Priority - High |
| As a customer  I want to view the total cost of my order  So that I can place my order | | |
| BV - 200 | CP -01 | |
| Acceptance Criteria –  User can login with valid credentials  Click on cart  It will show the number of items added in the cart, prices of each item, applicable taxes (e.g., vat, gst), shipping fees (if any)  The total updates dynamically if items, quantities, or discounts are modified during checkout  If there is an issue calculating the total (e.g., tax calculation error), an appropriate message is displayed | | |

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| User Story No - 16 | Tasks – 4 | Priority - High |
| As a customer  I want to make the payment  So that I can get the product | | |
| BV - 1000 | CP -03 | |
| Acceptance Criteria –  Click on cart  Display the total price of all product with shipment charges and tax details  Select the payment option  Enter OTP  Click on confirm and pay | | |

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| User Story No - 17 | Tasks – 4 | Priority - High |
| As a customer  I want to view the status of refund  So that I can receive the return amount | | |
| BV – 200 | CP -01 | |
| Acceptance Criteria –  User can login with valid credentials  Users can view the refund status through their order history or a dedicated "refund status" section in their account.  The system displays key details for the refund, including refund request date, refund amount, current status (e.g., requested, in progress, approved, processed), estimated time for completion.  The status updates dynamically as the refund progresses through different stages.  If the refund status cannot be retrieved, an error message is displayed with instructions to contact support.  Users receive email or SMS updates for significant changes in refund status (e.g., when processed or completed) | | |

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| User Story No – 18 | Tasks – 4 | Priority - Medium |
| As a customer  I want to apply promo codes and discounts  So that I can order at lower price | | |
| BV – 200 | CP - 04 | |
| Acceptance Criteria –  The checkout page includes a dedicated field to enter promo codes.  The system validates the entered promo code for correctness, expiry date, eligibility based on order details (e.g., minimum purchase amount or applicable items).  Upon successful validation, the discount is applied to the total order cost, and the updated amount is displayed.  If the promo code is invalid, expired, or ineligible, the system displays an appropriate error message.  Users can remove an applied promo code, and the total amount recalculates dynamically.  If only one promo code can be applied, the system clearly informs users.  The discount amount is shown as a separate line item in the order summary.  The system suggests applicable promo codes based on the user’s order or account history.  Only verified promo codes are accepted to prevent abuse. | | |

Task5. Customer support

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| User Story No - 19 | Tasks – 5 | Priority - Medium |
| As a customer  I want to connect with customer support  So that I can solve my issue | | |
| BV - 100 | CP – 02 | |
| Acceptance Criteria –  User can login with valid credentials  Users can access customer support through a "contact us" section or a visible support button on the website/app.  Multiple support options are provided, such as live chat, email support, phone support, help centre/FAQs.  Users can submit support requests by filling out a form with details like their issue, order id, or contact information.  Users receive a unique ticket number for their request and can track its status.  Users receive updates via email or SMS when their support query is received, being processed, or resolved.  If any channel is unavailable (e.g., chat offline), users are informed and provided alternative options | | |

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| User Story No – 20 | Tasks – 6 | Priority - Medium |
| As a customer  I want to see the product information  So that I can get the details of the product | | |
| BV – 200 | CP - 04 | |
| Acceptance Criteria –  Click on the product  The product page includes key details such as  Product name  Description  Price  Available sizes, colours, or variants  Brand information (if applicable)  High-quality images are provided, with zoom and multiple angle views.  Videos or 360° views are optional features.  For technical products, detailed specifications (e.g., dimensions, weight, material, compatibility) are included.  Stock status (e.g., "in stock," "out of stock") is displayed.  A section for customer ratings and reviews is available to provide insights into product quality.  Estimated delivery dates and shipping options are displayed based on the user’s location.  Buttons for "add to cart" and "add to wish-list" are included on the product page.  If product information is unavailable, an error message is displayed, suggesting alternative products. | | |