**Mock 4**

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

**BRD Template:**

**<Online Ice-Cream & Milk Product Store>**

**<Project ID- PROJ124>**

**<Version ID- 1.0>**

**<Nikita Suryawanshi>**

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1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| Date | Version Number | Document Changes |
| 05/02/2025 | 1.0 | Initial Draft Created |
| 12/02/2025 | 1.0 | Added project objectives and scope |
| 20/02/2025 | 1.0 | Included risk assessment and dependencies |
| 01/03/2025 | 1.0 | Finalized document after stakeholder review |
| 10/03/2025 | 1.0 | Add New Wireframes |
| 14/03/2025 | 1.0 | Final Review and Approval |

1. **Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Role | Name | Title | Signature | Date |
| Project Sponsor | Mr. Amit Sharma | CEO, Innoplexus Consulting Service | A.S. Shrama | 27-01-2025 |
| Business Owner | Mr. Akshay Jagtap | Founder, Innoplexus Consulting Service | A.M. Jagtap | 27-01-2025 |
| Project Manager | Mrs. Nilima Jagtap | Project Manager, Innoplexus Consulting Service | N. P. Jagtap | 28-01-2025 |
| System Architect | Mr. Vivek Suryawanshi | Lead System Architect | V.D. Suryawanshi | 30-01-2025 |
| Development Lead | Mr. Kunal Kad | Senior Software Engineer | K.L.Kad | 02-02-2025 |
| User Experience  Lead | Mr. Pratik Jog | UX Lead | P.A.Jog | 06-03-2025 |
| Quality Lead | Mr. Aniket Lohar | QA Manager | A.S.Lohar | 10-02-2025 |
| Content Lead | Mrs. Pooja Patil | Content Strategist | P.S.Patil | 14-02-2025 |

**3. 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. (RACI Can be made for IT side [Project stakeholder] as mentioned above, apart from that Can also Be made for Client side [Business Stakeholder]).

The following describes the full list of codes used in the table:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **\*** | **R** | **A** | **S** | **C** | **I** |
| Mr. Amit Sharma | Project Sponsor | Yes |  | Yes |  | Yes | Yes |
| Mr. Akshay Jagtap | Business Owner | Yes |  | Yes |  | Yes | Yes |
| Mrs. Nilima Jagtap | Project Manager |  | Yes |  | Yes | Yes | Yes |
| Mr. Vivek Suryawanshi | System Architect |  | Yes |  | Yes | Yes | Yes |
| Mr. Kunal Kad | Development Lead | Yes |  |  |  | Yes | Yes |
| Mr. Pratik Jog | User Experience  Lead | Yes |  |  |  | Yes | Yes |
| Mr. Aniket Lohar | Quality Lead | Yes |  |  |  | Yes | Yes |
| Mrs. Pooja Patil | Content Lead | Yes |  |  |  | Yes | Yes |
| Mrs. Nikita Suryawanshi | Business Analyst | Yes |  |  |  | Yes | Yes |

**4. Introduction-**

* 1. **Business Goals-**
* Streamline inventory management across all plants and warehouses.
* Ensure the quickest and most cost-effective delivery of products to customers.
* Improve coordination between manufacturing, warehousing, and logistics teams.
* Achieve better demand forecasting and supply planning.
* Enhance customer satisfaction with real-time delivery tracking and prompt order fulfillment.
  1. **Business Objectives-**
* Build a centralized inventory management system accessible by all stakeholders.
* Integrate real-time tracking of stock levels and product movement.
* Implement a delivery optimization algorithm based on location, product availability, and route efficiency.
* Reduce delivery time by 25% within 6 months of implementation.
* Decrease inventory holding costs by 15% through just-in-time practices.
  1. **Business Rules – [List Organization Policies, Procedures, and Rules and Regulations]**
* Perishable inventory must be rotated using FIFO (First-In, First-Out) method.
* Cold chain must be maintained for ice-cream and milk products at all stages of storage and delivery.
* Warehouses and plants operate from 6 AM to 10 PM (Mon–Sat).
* Stock audits must be performed every week at all warehouses.
* All product deliveries must comply with FSSAI guidelines.
* Orders must be fulfilled within a maximum 48-hour SLA.
  1. **Background-**

The company has manufacturing plants and warehouses distributed nationally. Managing perishable goods efficiently is a challenge. The current system involves manual stock entries and traditional delivery routing, leading to delays, wastage, and customer dissatisfaction. The company needs an integrated digital solution.

* 1. **Project Objective-**

To develop a software solution that digitizes and optimizes inventory management and delivery operations to ensure quicker customer deliveries and better product tracking, thereby enhancing operational efficiency and customer satisfaction.

* 1. **Project Scope-**

**In-Scope:**

* Centralized inventory management system.
* Delivery routing and optimization module.
* Real-time tracking of shipments and stock.
* Dashboard for analytics and reporting.
* Mobile app/portal for customers to track orders.

**Out-of-Scope**:

* Upgrading physical logistics infrastructure.
* CRM functionalities unrelated to delivery or inventory.

1. **Assumptions-**

Assumption 1 - All warehouses and plants have internet connectivity.

Assumption 2 - Staff is trained to use the new system.

Assumption 3 - Integration with current ERP is possible.

Assumption 4 - Vehicles used for delivery have GPS capability**.**

Assumption 5- **Delivery fleet (own or third-party)** is already in place for order fulfilment.

Assumption 6- All users (warehouse staff, delivery managers, etc.) will be **trained to use the software.**

Assumption 7- **APIs or integration points** will be provided for any third-party logistics or ERP tools.

Assumption 8- **Security protocols and data privacy policies** will be followed as per industry norms.

Assumption 9- The project team will have **access to subject matter experts (SMEs)** from inventory and logistics teams.

Assumption 10- **Customer data and delivery zones** are available and can be integrated into the system.

1. **Constraints-**

* Budget is fixed at Rs. 65 Lakhs for the entire software development lifecycle.
* Time is limited to 12 months for complete development, testing, and deployment.
* The system must be scalable to accommodate future expansion to more locations.
* The software must support multi-location inventory management and delivery tracking.
* The software must ensure minimal downtime, ideally <1% annually.
* Government regulations (like FSSAI, GST) must be complied with in inventory and sales tracking.
* Integration with existing systems, if any, must be handled within the timeline.
* Delivery optimization features must support constraints like perishable goods and delivery windows.
* The UI/UX must be simple and accessible for users with minimal tech exposure.
* System must generate automated reports on stock levels, dispatches, and delivery performance.

1. **Risks-**

* **Technical Risk-**

Software may not handle high volume of real-time data from multiple locations.

Inventory and customer data may be exposed to cyber threats.

Migrating old inventory and order data may be complex or error-prone.

* **Political Risk-**

Changes in government regulations, food safety laws, or transportation policies could affect how products are stored, transported, or delivered. For example, stricter cold chain regulations or regional transport restrictions**.**

Changes in GST, import/export taxes, or state taxes could affect pricing, margins, or software configurations (e.g., tax module updates).

* **Business Risks-**

Resistance to change from employees used to manual processes.

Increased operational cost during transition**.**

* **Requirements Risks-**

Incomplete stakeholder input could lead to gaps in requirements.

Misunderstanding between technical and business teams on system expectations

* **Other Risks**

Data migration from legacy systems.

Downtime during system switch-over.

Hardware failures at plant/warehouse locations**.**

**8. Business Process Overview –**

**Requirement gathering-** Where the elicitation technique have been applied like brainstorming, focus grouping, observations, JAD Session for requirement gathering, Use case Specification, do stakeholder analysis (RASCI Matrix), sort requirements and prioritize requirements

**Requirement Analysis-** Made use case diagrams, Prepare Function Requirements from Business requirements, Take sign off on SRS, prepared RTM from SRS

**Design-** Once requirement analysis done, move forward on Design stage. In this stage made Prototype, Activity diagrams, Create architecture, database schema. In this stage DB architecture uses persistence classes and come up with ER Diagram and DB Schema. GUI Designer will look into transient class and design all possible Screens.

**Development-** In this Phase organize JAD session and clarify queries of technical team during coding, Update End user manuals, developers refers diagram for development.

**Testing**- In this stage prepared Test cases from use cases, performs high level testing, prepare clients for UAT and update RTM. Take signoff from client.

**Deployment and Implementation-** Forward RTM to client or the which should be attached to the Project closure documents. Coordinate to complete and share End user Manuals, Plan training session for end user and prepared Lesson learned from project**.**

**Requirement Gathering and Planning: 2 months**

**Design and Development: 7 months**

**Testing and Training: 2 months**

**Deployment and Go-Live: 1 month**

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

Manual entries for inventory using spreadsheets.

Basic delivery assignment without route optimization.

No real-time inventory updates.

High dependency on human judgment for dispatching.



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

Centralized cloud-based inventory platform.

Route optimization using GIS & GPS.

Automated reorder levels and stock alerts.

Real-time dashboard for management.

Customer delivery tracking portal.



**9. Business Requirements-**

BR0001- The system must track inventory levels in real time.

BR0002- The system must suggest the optimal delivery route based on customer location, traffic, and warehouse stock.

BR0003- Notifications must be sent when stock reaches reorder level.

BR0004- The system should support barcode scanning for product entry and dispatch.

BR0005- Users must have role-based access control.

BR0006- The system must integrate with GPS-enabled delivery vehicles.

BR0007- Customers must be able to track their orders via web/mobile.

BR0008- All data must be stored securely with regular backups.

BR0009- Inventory aging reports must be available to reduce wastage.

BR0010- Admins should be able to generate customizable reports.

**10. Appendices-**

10.1 List of Acronyms

- SLA - Service Level Agreement

- NFR - Non-Functional Requirement

- FR - Functional Requirement

- BR - Business Requirement

10.2. Glossary of Terms

- Compliance - Adhering to regulations and industry standards, such as HIPAA and GDPR.

10.3 Related Documents

- User Manual

- System Requirements Specification (SRS)

- Regulatory Compliance Guidelines

- Requirement Traceability Matrix (RTM)

- Risk Assessment Report

- Compliance and Security Documents

- Use Case Documentation

1. 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.

Answer -

Subject: Introduction - Business Analyst for Your Project

Innoplexus Consulting Services, Pune,

I hope this message finds you well.

My name is Nikita Shivaji Surayawnshi, I’m pleased to introduce myself as the Business Analyst assigned to work with you and your team on Ticketing system. I will be your primary point of contact as we begin the business understanding phase of this engagement.

My role is to collaborate closely with you to gain a deep understanding of your business goals, challenges, and requirements. This will help ensure that our project aligns perfectly with your expectations and delivers value to your organization. Over the coming weeks, I’ll be facilitating discussions, gathering insights, and translating your business needs into clear and actionable requirements for the project team.

I look forward to building a strong working relationship and contributing to the success of your initiative. Please feel free to reach out to me anytime if you have questions, ideas, or concerns. I’ll be in touch soon to schedule our initial meeting.

Thank you, and I’m excited to get started!

Warm regards,

Nikita Suryawanshi,

Business Analyst

(Contact No- 9734679921)

1. Prepare a brief BRD and SRS for a project- Ticketing system.

**BRD Template:**

**<Ticketing System>**

**<Project ID- PROJ125>**

**<Version ID- 1.0>**

**<Nikita Suryawanshi>**

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1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** |
| **06/02/2025** | **1.0** | **Initial Draft Created** |
| **14/02/2025** | **1.0** | **Added project objectives and scope** |
| **22/02/2025** | **1.0** | **Included risk assessment and dependencies** |
| **02/03/2025** | **1.0** | **Finalized document after stakeholder review** |
| **11/03/2025** | **1.0** | **Add New Wireframes** |
| **15/03/2025** | **1.0** | **Final Review and Approval** |

1. **Approvals**

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| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| **Project Sponsor** | **Mr. Amit Sharma** | **CEO, Innoplexus Consulting Service** | **A.S. Shrama** | **27-01-2025** |
| **Business Owner** | **Mr. Akshay Jagtap** | **Founder, Innoplexus Consulting Service** | **A.M. Jagtap** | **27-01-2025** |
| **Project Manager** | **Mrs. Nilima Jagtap** | **Project Manager, Innoplexus Consulting Service** | **N. P. Jagtap** | **28-01-2025** |
| **System Architect** | **Mr. Vivek Suryawanshi** | **Lead System Architect** | **V.D. Suryawanshi** | **30-01-2025** |
| **Development Lead** | **Mr. Kunal Kad** | **Senior Software Engineer** | **K.L.Kad** | **02-02-2025** |
| **User Experience**  **Lead** | **Mr. Pratik Jog** | **UX Lead** | **P.A.Jog** | **06-03-2025** |
| **Quality Lead** | **Mr. Aniket Lohar** | **QA Manager** | **A.S.Lohar** | **10-02-2025** |
| **Content Lead** | **Mrs. Pooja Patil** | **Content Strategist** | **P.S.Patil** | **14-02-2025** |

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| **Name** | **Position** | **\*** | **R** | **A** | **S** | **C** | **I** |
| **Mr. Amit Sharma** | **Project Sponsor** | **Yes** |  | **Yes** |  | **Yes** | **Yes** |
| **Mr. Akshay Jagtap** | **Business Owner** | **Yes** |  | **Yes** |  | **Yes** | **Yes** |
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| **Mr. Pratik Jog** | **User Experience**  **Lead** | **Yes** |  |  |  | **Yes** | **Yes** |
| **Mr. Aniket Lohar** | **Quality Lead** | **Yes** |  |  |  | **Yes** | **Yes** |
| **Mrs. Pooja Patil** | **Content Lead** | **Yes** |  |  |  | **Yes** | **Yes** |
| **Mrs. Nikita Suryawanshi** | **Business Analyst** | **Yes** |  |  |  | **Yes** | **Yes** |

**4. Introduction-**

**4.1. Business Goals-**

- Streamline the customer support process by providing a centralized platform for tracking and managing support tickets.

- Enhance communication between customers and support teams.

- Improve customer satisfaction by ensuring timely ticket resolution.

**4.2. Business Objectives-**

**-** Reduce average ticket resolution time by 30%.

- Achieve 90%+ customer satisfaction score within 6 months of implementation.

- Implement a secure, scalable, and user-friendly web-based support platform**.**

**4.3. Business Rules – [List Organization Policies, Procedures, and Rules and Regulations]**

**-** Tickets must be acknowledged within 4 business hours.

- Only registered users can raise tickets.

- Support agents must update ticket status after every interaction.

- All resolved tickets are archived after 30 days.

- Admins can assign tickets and monitor SLAs.

**4.4. Background-**

The organization currently handles customer queries via email and spreadsheets, resulting in delayed responses, poor tracking, and inconsistent customer service. A digital ticketing system will replace this manual process.

**4.5. Project Objective-**

To develop a centralized, automated ticketing system that allows customers to raise issues, track progress, and receive timely resolutions, while support agents manage and resolve issues efficiently.

**4.6. Project Scope-**

**In-Scope:**

* User registration and login
* Ticket creation and tracking
* Support agent and admin dashboards
* Ticket categorization and prioritization
* Notifications via email and in-app
* SLA management

**Out-of-Scope:**

**-** Integration with third-party CRM tools (Phase 2)

- Mobile application version

- AI-based ticket classification

**5. Assumptions-**

Assumption 1 **-** End users have access to the internet and basic digital literacy.

Assumption 2 - Stakeholders are available for timely feedback and sign-offs.

Assumption 3 - System will be hosted on a secure cloud environment**.**

Assumption 4- **User roles and permissions** (Admin, Agent, Customer) are clearly defined before development starts.

Assumption 5- There is an existing **knowledge base or FAQ repository** that can be integrated or migrated.

Assumption 6- The system will support **automated ticket prioritization and categorization** based on keywords or tags.

Assumption 7- There are **no major changes** expected in the business process or support workflows during the development phase.

Assumption 8- **Third-party integrations** (like CRM, email servers, messaging apps) will provide standard APIs.

Assumption 9- Users (support agents, admins, and customers) will be **trained** to use the ticketing system upon rollout.

Assumption 10- The ticketing system will be hosted on **cloud infrastructure** with scalable storage and compute.

**6. Constraints-**

**-** The budget is capped at Rs. 95 Lakhs, including development, testing, deployment, and initial training/support.

- The project must be completed within 12 months, including all phases (requirement gathering to go-live).

- The system must support 24/7 uptime with high availability and failover support.

- The system must comply with data privacy regulations (e.g., GDPR, local IT laws).

- The UI/UX must be responsive and user-friendly, accessible across devices (desktop, tablet, mobile).

- Must support SLA tracking, escalation matrix, and reporting dashboards.

- The system should be scalable to handle increased ticket volume and user base in the future.

- Audit trails and logs must be maintained for all actions within the system.

- Must include role-based access control to ensure data security and authorization.

- Performance benchmarks should ensure ticket creation, update, and response happen within acceptable latency.

**7. Risks-**

**- Technical Risk-**

Integration issues with existing systems

Technology stack compatibility

**- Political Risk-**

Change resistance from internal staff

Shift in leadership priorities

**- Business Risks-**

Low adoption by users

Misalignment between IT solution and business expectations

**-Requirements Risks-**

Incomplete or evolving requirements

Unclear stakeholder roles

**- Other Risks**

Vendor delays

Security vulnerabilities

**8. Business Process Overview -**

**Requirement gathering-** Where the elicitation technique have been applied like brainstorming, focus grouping, observations, JAD Session for requirement gathering, Use case Specification, do stakeholder analysis (RASCI Matrix), sort requirements and prioritize requirements

**Requirement Analysis-** Made use case diagrams, Prepare Function Requirements from Business requirements, Take sign off on SRS, prepared RTM from SRS

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**Requirement Gathering and Planning: 2 months**

**Design and Development: 7 months**

**Testing and Training: 2 months**

**Deployment and Go-Live: 1 month**

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

**-** Manual ticket management through emails and spreadsheets

- No centralized reporting or tracking

- Lack of accountability and status visibility



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

**-** Web-based platform with ticket submission, tracking, and resolution

- Role-based access control

- Automated SLA tracking and notifications

- Dashboards for metrics and reporting



**9. Business Requirements-**

BR001- The system must allow users to raise support tickets with category and priority.

BR002- The system must notify users about ticket status changes.

BR003- The system must provide a dashboard for agents to manage tickets

BR004- The system must log all ticket activity.

BR005- The system must ensure data privacy and access control

BR006- The system must allow users to attach files (images, PDFs, documents) to support tickets.

BR007 – The system must support multiple channels for ticket creation (web form, email, mobile app).

BR008- The system must automatically assign tickets to agents based on workload and category.

BR009- The system must provide an SLA timer and highlight overdue tickets.

BR010- The system must allow escalation of tickets based on priority and resolution time.

BR011- The system must allow tagging and filtering of tickets for efficient search and categorization.

**10. Appendices-**

**10.1 List of Acronyms**

**-** SLA - Service Level Agreement

- NFR - Non-Functional Requirement

- FR - Functional Requirement

- BR - Business Requirement

**10.2. Glossary of Terms**

- Compliance - Adhering to regulations and industry standards.

**10.3 Related Documents**

**-** User Manual

- System Requirements Specification (SRS)

- Regulatory Compliance Guidelines

- Requirement Traceability Matrix (RTM)

- Risk Assessment Report

- Compliance and Security Documents

- Use Case Documentation

**Software Requirements Specification (SRS)-**

**Project: Ticket Tracking System**

**Version: 1.0  
Date: April 17, 2025  
Prepared by: Nikita Suryawanshi**

**Introduction-**

**1.1 Purpose**

The purpose of this document is to define the functional and non-functional requirements for the Ticket Tracking System. This system enables users to raise tickets, support agents to resolve them, and administrators to monitor and manage the overall ticket lifecycle.

**1.2 Scope**

This system will be used by three types of users: End Users (to raise tickets), Support Agents (to manage tickets), and Admins (to configure settings and view reports). The application will be accessible via web browser and designed to handle different departments and issue type.

**1.3 Resources-**

People- Project Team Members: Business Analysts, Neurologists, UX/UI Designers, Software Developers, QA Engineers, Project Managers, IT Support. Product Owner.

**Time -**

-Estimated project timeline: 12 months.

Requirement Gathering & Planning: 2 months

Design & Development: 7 months

Testing & Training: 2 months

Deployment & Go-Live: 1 month

**Budget -** Total Estimated Budget: Rs. 9,500,000

Development Costs: Rs. 50,00,000

Hardware & Infrastructure: Rs. 1,000,000

Software & Licensing: Rs. 1,000,000

Training & Support: Rs. 15,00,000

Marketing & Launch: Rs. 1,000,000

**Functional Requirements-**

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| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| FR0001 | User Registration | System shall allow users to register with email and role selection (user/admin). | High |
| FR0002 | User Login | Users must be able to log in securely using their credentials. | High |
| FR0003 | Create Ticket | Registered users shall be able to create a support ticket with issue details. | High |
| FR0004 | Assign Ticket | Admin shall assign tickets to support agents. | High |
| FR0005 | Update Ticket Status | Agents shall update ticket status (Open, In Progress, Resolved, Closed). | Medium |
| FR0006 | Comment on Ticket | Users and agents shall add comments to a ticket for communication. | Medium |
| FR0007 | Attach Files | Users/agents can attach files/screenshots to tickets. | Low |
| FR0008 | View Ticket History | Users shall view all tickets raised by them along with current status. | High |
| FR0009 | Search Tickets | Users and admins can search tickets based on ID, status, category, or assignee. | High |
| FR0010 | Notification System | System shall send notifications on ticket updates via email. | Medium |
| FR0011 | Dashboard | Admin dashboard to show ticket stats, SLA breaches, and assignments. | High |

**Non-Function Requirements-**

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| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| NFR0101 | Performance | System must support 1000+ concurrent users with page loads < 3 seconds. | High |
| NFR0102 | Scalability | System should be horizontally scalable to support future growth. | High |
| NFR0103 | Availability | System should have 99.9% uptime and be accessible 24/7. | High |
| NFR0104 | Security | All user data and payment info must be encrypted | High |
| NFR0105 | Usability | Interface should be intuitive and accessible for all users. | High |
| NFR0106 | Maintainability | Code should follow modular architecture and be well-documented for maintenance. | Medium |
| NFR0107 | Compatibility | System must work across major browsers (Chrome, Firefox, Edge, Safari). | Medium |
| NFR0108 | Backup and Recovery | Daily backups must be maintained and restorable within 1 hour of failure. | High |
| NFR0109 | Localization | Platform must support multi-language options based on user location. | Low |
| NFR0110 | Legal Compliance | System must comply with GDPR for data protection and privacy. | High |

1. **Assumptions**

Assumption 1 - End users have access to the internet and basic digital literacy.

Assumption 2 - Stakeholders are available for timely feedback and sign-offs.

Assumption 3 - System will be hosted on a secure cloud environment.

Assumption 4- User roles and permissions (Admin, Agent, Customer) are clearly defined before development starts.

Assumption 5- There is an existing knowledge base or FAQ repository that can be integrated or migrated.

Assumption 6- The system will support automated ticket prioritization and categorization based on keywords or tags.

Assumption 7- There are no major changes expected in the business process or support workflows during the development phase.

Assumption 8- Third-party integrations (like CRM, email servers, messaging apps) will provide standard APIs.

Assumption 9- Users (support agents, admins, and customers) will be trained to use the ticketing system upon rollout.

Assumption 10- The ticketing system will be hosted on cloud infrastructure with scalable storage and compute.

1. **Constraints-**

- The budget is capped at Rs. 95 Lakhs, including development, testing, deployment, and initial training/support.

- The project must be completed within 12 months, including all phases (requirement gathering to go-live).

- The system must support 24/7 uptime with high availability and failover support.

- The system must comply with data privacy regulations (e.g., GDPR, local IT laws).

- The UI/UX must be responsive and user-friendly, accessible across devices (desktop, tablet, mobile).

- Must support SLA tracking, escalation matrix, and reporting dashboards.

- The system should be scalable to handle increased ticket volume and user base in the future.

- Audit trails and logs must be maintained for all actions within the system.

- Must include role-based access control to ensure data security and authorization.

- Performance benchmarks should ensure ticket creation, update, and response happen within acceptable latency.

1. **User Classes and Characteristics**

End User - raises and tracks tickets.

Support Agent - handles and updates assigned tickets.

Admin - manages categories, users, and ticket settings.

1. **Dependency-**

User Authentication System

Database Server

Browser Compatibility

Network Connectivity

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



1. User story of shopping from ecommerce.

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| User Story No: 01 | Tasks: User Registration | | Priority: High |
| As a User  I want to Register an account  So that I Can find my desired product | | | |
| BV: 500 | | CP: 03 | |
| Acceptance Criteria:  1) User can click on register option  2) User can enter personal information  3) User can create an account with email/phone | | | |

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| User Story No: 02 | Tasks: Authentication | | Priority: High |
| As a User  I want to Log in with credentials  So that I can Access my account | | | |
| BV: 500 | | CP: 03 | |
| Acceptance Criteria:  1) Click on Login  2) Enter user name and password  3) Login works with correct credentials | | | |

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| User Story No: 03 | Tasks: Product Browsing and Search | | Priority: High |
| As a User  I want to browse and search for products  So that I can Find the items I want to purchases | | | |
| BV: 500 | | CP: 05 | |
| Acceptance Criteria:  1) User can view product categories  2) User can search by keyword  3) Filters (price, brand, rating) are functional | | | |

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| User Story No: 04 | Tasks: Add items to shopping cart | | Priority: High |
| As a User  I want to add products to my cart  So that I Can purchase them later | | | |
| BV: 100 | | CP: 05 | |
| Acceptance Criteria:   1. Item is added to cart successfully 2. Cart icon updates with count 3. Cart persists during session | | | |

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| User Story No: 05 | Tasks: Perform checkout and payment | | Priority: High |
| As a User  I want to check out and make payment  So that I can complete my order and get confirmation | | | |
| BV: 500 | | CP: 08 | |
| Acceptance Criteria:   1. User can enter shipping and billing info 2. User selects payment method 3. Order summary is displayed 4. Confirmation message shown after successful payment | | | |

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| User Story No: 06 | Tasks: Track order status | | Priority: Medium |
| As a User  I want to track the status of my order  So that I can know when it will be delivered | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. Order status updates available 2. Delivery date is visible 3. Tracking link or number is shown | | | |

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| User Story No: 07 | Tasks: Add products to Wishlist | | Priority: Medium |
| As a User  I want to add products to my Wishlist  So that I can save them for future consideration | | | |
| BV: 500 | | CP: 02 | |
| Acceptance Criteria:   1. Products can be added/removed from Wishlist 2. Wishlist persists in user account 3. Option to move item from Wishlist to cart | | | |

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| User Story No: 08 | Tasks: Submit product review | | Priority: Medium |
| As a User  I want to rate and review a product  So that I can share my experience with other customers | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. User can leave text and star rating 2. Only verified buyers can review 3. Reviews are displayed on product pages | | | |

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| User Story No: 09 | Tasks: Receive order and offer notifications | | Priority: Medium |
| As a User  I want to get notifications about my order and promotions  So that I can stay informed about order progress and deals | | | |
| BV: 500 | | CP: 04 | |
| Acceptance Criteria:   1. User receives order updates via email/SMS 2. Promotional offers sent if opted in 3. Notifications can be managed in account settings | | | |

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| User Story No: 10 | Tasks: Ensure secure and reliable payment | | Priority: High |
| As a User  I want to make payments through a secure gateway  So that I can protect my personal and financial information | | | |
| BV: 500 | | CP: 05 | |
| Acceptance Criteria:   1. Payment is encrypted and secure 2. Supports multiple payment options 3. User receives a payment confirmation instantly | | | |

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| User Story No: 11 | Tasks: Manage user profile | | Priority: Medium |
| As a User  I want to update my personal information  So that I can keep my profile current. | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. User can edit name, address, and contact 2. Changes are saved after confirmation 3. Update reflects in future orders | | | |

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| User Story No: 12 | Tasks: Cancel or modify order | | Priority: High |
| As a User  I want to cancel or modify my order  So that I can make changes before it ships | | | |
| BV: 500 | | CP: 05 | |
| Acceptance Criteria:   1. Cancel option available before shipping 2. Modify quantity or address within timeframe 3. Refund initiated upon cancellation | | | |

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| User Story No: 13 | Tasks: View order history | | Priority: Medium |
| As a User  I want to view my previous orders  So that I can track my shopping history | | | |
| BV: 500 | | CP: 03 | |
| Acceptance Criteria:   1. List of all past orders 2. Order details viewable (items, date, amount) 3. Reorder option available | | | |

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| User Story No: 14 | Tasks: Apply coupon codes | | Priority: High |
| As a User  I want to use discount codes during checkout  So that I can save money on purchases | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. Coupon field available at checkout 2. Code is validated in real-time 3. Discount reflected in order summary | | | |

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| User Story No: 15 | Tasks: Multi-language support | | Priority: High |
| As a User  I want to the platform in my preferred language  So that I can navigate it comfortably | | | |
| BV: 100 | | CP: 05 | |
| Acceptance Criteria:   1. Language selector available 2. Text changes dynamically 3. Default language saved in user profile | | | |

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| User Story No: 16 | Tasks: Guest checkout | | Priority: Medium |
| As a User  I want to place an order without registration  So that I can quickly complete my purchase | | | |
| BV: 100 | | CP: 05 | |
| Acceptance Criteria:   1. Guest checkout option visible 2. Guest provides minimal necessary details 3. Confirmation email sent post-order | | | |

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| User Story No: 17 | Tasks: Compare products | | Priority: Medium |
| As a User  I want to compare multiple products  So that I can make an informed decision | | | |
| BV: 500 | | CP: 03 | |
| Acceptance Criteria:   1. Comparison option available on product listings 2. Products compared by features, price, and rating 3. Easy navigation between compared items | | | |

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| User Story No: 18 | Tasks: Responsive design | | Priority: High |
| As a User  I want to site to work on all devices  So that I can shop from any screen size | | | |
| BV: 500 | | CP: 05 | |
| Acceptance Criteria:   1. Pages adjust to mobile, tablet, desktop 2. Navigation and buttons are touch-friendly 3. No content overlaps or UI breaks | | | |

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| User Story No: 19 | Tasks: Manage shipping addresses | | Priority: Medium |
| As a User  I want to add and manage multiple shipping addresses  So that I can choose where to send my orders | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. Option to add/edit/delete addresses 2. Address book available at checkout 3. Default address can be set | | | |

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| User Story No: 20 | Tasks: Loyalty rewards system | | Priority: Low |
| As a User  I want to earn rewards for my purchases  So that I can I can redeem them later | | | |
| BV: 100 | | CP: 03 | |
| Acceptance Criteria:   1. Points are added after order confirmation 2. Points viewable in user profile 3. Redeemable during checkout | | | |