**Nurturing Process – Waterfall Deliverables – Part -1/2- V2D2 August 2024**

**Document 1- Business case document template**

* **Why is this project initiated?**

Mr. Henry identified need for farmers to deliver them agriculture products on their doorstep and opportunity for himself to capitalize an opportunity.

This project will facilitate farmers to buy seeds, pesticides, and fertilizers from anywhere through internet by online.

* **What are the current problems?**

Difficulties in procuring fertilizers which are very important for farm. Buying seeds for farming certain crops and lack of pesticides which could help in greatly reducing pests in crops.

* **With this project how many problems could be solved?**

This project will facilitate farmers to buy seeds, pesticides, and fertilizers from anywhere through internet connectivity.

* **What are the resources required?**

**1.Human Resources**

* Farmers-To buy fertilizers,seeds and pesticides
* Packers,Delivery agents-To deliver the products
* Project Manager – Oversees project timelines, budgets, and stakeholder coordination.
* Software Developers – Front-end and back-end developers to build the web and mobile applications.
* UI/UX Designers – Design user interfaces that are intuitive and accessible, especially for rural users.
* Quality Assurance (QA) Testers – Test functionality, usability, and performance.
* Content Writers – Create product descriptions, FAQs, tutorials, and multilingual content.
* Digital Marketing Team – Promote the platform through social media, ads, and local awareness programs.
* Customer Support Team – Handle user queries, complaints, and technical assistance in local languages.
* Agricultural Experts/Advisors – Guide product selection, content creation, and advisory tools.

**2. Technical Resources**

* Database Management System – To store user data, product info, transactions, etc.
* Payment Gateway Integration – Secure services for handling payments (e.g., Razorpay, Stripe).

**3. Informational Resources**

* User Feedback & Research Data – Surveys, interviews, and studies to guide decisions.
* Product Information & Certifications – From verified suppliers and manufacturers.
* Regulatory Guidelines – Local agricultural and e-commerce laws and compliance requirements.
* Market & Competitor Analysis Reports – To understand trends, pricing, and competition.
* **How much organizational change is required to adopt this technology?**

#### ****Digital Infrastructure Implementation****

#### ****Change:**** Invest in and adopt e-commerce technology (website, mobile app, payment systems).

#### ****Impact:**** Transforms the business from a physical or local operation to a digital one.

#### 2. ****New Roles and Team Structure****

**Change:** Introduce new job roles like:

* commerce Manager
* Digital Marketing Specialist
* IT/Tech Support
* Logistics Coordinator
* Customer Service Agents

**Impact:** Shifts focus from traditional selling to digital operations, requiring new skills and training.

#### ****3.Supply Chain Restructuring****

* **Change:** Redesign logistics and inventory management for online order fulfillment.
* **Impact:** Moves from bulk or local sales to individual order processing, requiring better coordination and tracking systems.

#### ****4.Customer Relationship Management (CRM)****

* **Change:** Implement CRM systems to manage orders, feedback, and loyalty programs.
* **Impact:** Enhances the ability to build long-term relationships with customers online.

#### ****5.Customer Service & Support Systems****

* **Change:** Implement live chat, help desks, and return/refund processes.
* **Impact:** New policies and dedicated teams are needed to handle online customer interactions.
* **Time frame to recover ROI?**

18 Months

* **How to identify Stakeholders?**

Henry who proposed the project is a key stakeholder

Pandu -Financial head-key stakeholder

Dooku -project coordinator-key stakeholder

Vandanam-project manager-key stakeholder

Peter,kevin, ben- helping the committee-Stakeholder

Juhi,teyson,lucie,tucker,bravo-Java developers-stakeholders

Mike-network admin-stakeholder

John-DB Admin-stakeholder

Jason,Alekya-Testers-stakeholder

#### ****Primary Stakeholders (Directly Involved)****

|  |  |
| --- | --- |
| **Stakeholder** | **Role** |
| **Farmers / Producers** | Supply the agricultural products |
| **Customers / End-users** | Purchase and consume the goods |
| **Platform Owners / Founders** | Run the online store and make key decisions |
| **Logistics Partners / Delivery Agents** | Handle transportation and delivery of goods |
| **Tech/IT Team** | Build and maintain the website/app |
| **Customer Support** | Interact with and assist customers |

#### ****Secondary Stakeholders (Indirectly Involved)****

|  |  |
| --- | --- |
| **Stakeholder** | **Role** |
| **Investors / Funders** | Provide capital and expect returns |
| **Government or Agricultural Departments** | Provide licenses, subsidies, or compliance checks |
| **Marketing & Advertising Agencies** | Promote the platform to customers |
| **Local Communities / Cooperatives** | May benefit from increased farmer income |
| **NGOs or Farmer Welfare Organizations** | Support farmers with training or digital tools |

**Document 2: BA Strategy**

* **What Elicitation Techniques to apply?**

There are various elicitation techniques such as interviews,workshops,surveys and observations to gather requirements from stakeholders.This will helps in understanding their needs,pain points and expectations related to online agricultural product store.

**Objective:** Gather and understand all necessary business and functional requirements.

**Techniques to Apply:**

* **Brainstorming:** Organize sessions with key stakeholders (e.g., farmers, suppliers) to generate ideas and identify key features for the platform.
* **Document Analysis:** Review existing documentation from similar projects or internal data to gain insights into the current processes.
* **Interviews:** One-on-one or group interviews with farmers (end-users) to understand their requirements for the online agriculture store.
* **Reverse Engineering:** Analyze existing systems (if any) to identify gaps or opportunities for improvement.
* **Focus Group:** Engage a selected group of stakeholders, including farmers (Peter, Kevin, Ben), to discuss their needs and pain points.
* **Observations:** Visit farming sites to observe day-to-day activities and better understand the challenges faced by the stakeholders.

I would be using the Brainstorming Technique

In Brainstorming elicitation technique where a problem or topic is presented to the group, and participants are asked to produce as many ideas to solve/address the topic as possible. As ideas are presented, a scribe documents the ideas and ensures the participants can see what is being captured.

* **How to do Stakeholder Analysis RACI/ILS?**

Below is list of stakeholders

**Project Stakeholders:**

-Business Analyst – Jaishree

-Delivery Head – Mr Karthik

-Project Manager – Mr Vandanam

-Development Team – MS Juhi, Mr. Teyson, Ms Lucie, Mr. Tucker, Mr. Bravo

-Testing Team – Mr. Jason and Ms Alekya

-Network Admin – Mr. Mike

-DB Admin is John

**Business Stakeholders:**

Business Sponsor - Mr. Henry

Influencers - Peter, Kevin and Ben.

Finance team - Mr Pandu

Project Team - Mr Dooku

**Responsible:** BA for gathering and documenting requirements.

**Accountable:** Project Manager (Mr. Vandanam) for project delivery.

**Consulted:** Stakeholders (Peter, Kevin, Ben), manufacturers, the Committee (Mr. Henry, Mr. Pandu, Mr. Dooku).

**Informed:** Development and Testing Teams.

* **What Documents to Write ?**

1. Scope

2. In-Scope Features/Services

3. Out scope Features/Services

4. Solution Architecture Diagram

5. Technology Specifications

6. FRD – Functional and Non-Functional

7. BRD-Business Requirements Document

8. Project timeline

9. Risks and mitigation plan

10.Change management

11. Standard terms and conditions

12.Use cases

13.User stories

14.Process Flows

* **What Process to follow to Sign off on the Documents ?**

Project sign-off is typically executed during the contract closure phase – the company presents the results of the work done to the client and then, after getting the necessary acceptance from them, should get a client statement to verify that the job was completed.

* Name of the project.
* All relevant dates.
* Key roles in the project.
* Project deliverables.

**Key Document:** Software Requirements Specification (SRS)

**Steps:**

* Present the SRS to the Committee and stakeholders for review.
* Ensure all feedback is incorporated into the document.
* Use email confirmation for formal sign-off, which will be stored as part of the project documentation.
* **How to take Approvals from the Client?**

Establish a formal process to obtain approvals from the client at key milestones or stages of the project.This may include conducting review meetings,walk throughs and obtaining written acceptance on deliverable.

* Present finalized documents to the client for approval
* Provide explanations and clarifications as needed to ensure understanding
* Obtain formal approval from client through signed agreements or email confirmation
* **What Communication Channels to establish and implement?**
* Establish effective communication channels with stakeholders,regular meetings,status updates and progress reports.
* Use tools such as email,project management software and collaboration platforms to facilitate effective communication and information sharing.
* Maintain an open-door policy for stakeholders to raise concerns or provide feedback

**Channels**:

**Emails**: For formal communication and document distribution.

**Meetings**: Weekly status updates with the project team and stakeholders.

**Instant Messaging (Slack):** For quick, informal communications.

**Project Management Tool (Jira):** Track progress and tasks collaboratively.

* **How to Handle Change Requests?**
* During or upon further deliverable review following the session, the approvers/reviewers may provide changes/feedback to be incorporated into the deliverable.
* The team lead will drive the deliverable to completion integrating all changes submitted during or after the review session into the deliverable. Ensure to communicate any major changes to the reviewers and to track these in the Version Tracking section of the deliverable (In tracking mode).
* The Technical Team will coordinate and conduct a review session of the functional team deliverables. The team will review the deliverable prior to the session and come prepared with questions. Any significant changes resulting from the technical review will require updates to the deliverables before sign off can be obtained. Any minor changes (i.e., formatting) will simply be captured in the technical team scope document
* When a key deliverable is deemed 95% complete and where possible the Technical Lead has completed sign off, a final review session will be scheduled with key approvers and reviewers (A, C) toreview deliverable content and solicit feedback.
* Any material changes to the final deliverable will be updated in the original final deliverable, with Track Change functionality turned on. The document should be saved with these changes, and posted back to the Document Repository Tool so approvers can easily identify changes from the PDF version which has been signed off. The deliverable owner should contact the approvers to make

them aware of any such changes for review.

* **How to update the progress of the project to the Stakeholders, how to take signoff on the UAT Client Project Acceptance Form)?**
* User Acceptance Testing (UAT) is a type of testing performed by the end user or the client to verify/accept the software system before moving the software application to the production environment.
* UAT is done in the final phase of testing after functional, integration and system testing are done. Deliverables for UAT testing are Test Plan, UAT Scenarios and Test Cases, Test Results and Defect Log
* Once execution is over, and as many defects as possible are resolved, it is time to sign off on UAT and go live.
* The sign-off approval indicates that the change meets business requirements and is ready for deployment.
* Business Analysts or UAT Testers needs to send a sign off mail after the UAT testing. After sign-off, the product is good to go for production.

**Document 3- Functional Specifications**

|  |  |
| --- | --- |
| Project name | **Online Agricultural Product Store** |
| Customer name | Mr Bennet |
| Project Version | Version 1.0 |
| Project Sponsor | Mr Henry |
| Project Manager | Mr Vandanam |
| Project Initiation date | 21/04/2025 |

**Functional Requirement specifications:**

**FUNCTIONAL REQUIREMENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| **REQUIREMENT ID** | **REQUIREMENT NAME** | **DESCRIPTION** | **PRIORITY** |
| FR001 | User Registration | User should be able to create an account by providing basic details such as name, email ID, phone number, Password. | 8 |
| FR002 | Product Catalog | The application should be able to display a comprehensive list of all available products including fertilizers, seeds and pesticides with detailed information. | 9 |
| FR003 | Search Functionality | Users should be able to search for products based on various criteria like name, type, brand, price range. | 7 |
| FR004 | Product details | Users should be able to view detailed information about each product, including price, quantity, description, images and reviews. | 10 |
| FR005 | Shopping cart | User details be able to add products to their cart and view their cart details, including total price and quantity. | 8 |
| FR006 | Checkout process | Users should be able to complete the checkout process by providing delivery address, payment details and confirmation of order. | 9 |
| FR007 | Order tracking | Users should be able to track their order status, including confirmation, processing, shipping and delivery. | 6 |
| FR008 | User profile management | Users should be able to manage their profile emails such as name, address, phone number and password. | 9 |
| FR009 | Order History | Users should be able to view their previous order history, including details like order date, order status and product details. | 8 |
| FR010 | Product Reviews | Users should be able to rate and review products they have purchased which will be visible to other users. | 9 |
| FR011 | Product Comparison | Users should be able to compare products based on various parameters such as price, quality and features. | 8 |
| FR012 | Newsletter Subscription | Users should be able to subscribe to the newsletter to receive updates about new products, discounts  and promotions. | 8 |
| FR013 | Wishlist | Users should be able to add products to their wish list for future purchase . | 7 |
| FR014 | Product Recommendation | Users should be provided with personalized product recommendations based on their search and purchase history. | 9 |
| FR015 | Multiple payment options | Users should be able to pay for their orders through multiple payment options such as credit/debit cards, net banking and wallets. | 10 |
| FR016 | Order Cancellation | User should be able to cancel their order and request a refund as per the company's policies. | 7 |
| FR017 | Customer support | Users should be able to contact customer support for any queries, complaints or feedback . | 9 |
| FR018 | Mobile App | The application should have a mobile app version for users to access it from their mobile devices. | 9 |
| FR019 | Multilingual Support | The application should support multiple languages for users from different regions. | 10 |
| FR020 | SE Optimization | The application should be optimized for search engine to improve its visibility and ranking in search results. | 7 |

**Document 4- Requirement Traceability Matrix**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **REQ ID** | **REQ NAME** | **REQ DESCRIPTION** | **PRIORITY** | **DESIGN** | **D1** | **T1** | **T2** | **T3** | **T4** | **UAT** |
| FR001 | Farmer  Registration | Farmers should be able to register with the application | High | completed | ctd | ctd | ctd | ctd | ctd | ctd |
| FR002 | Farmer  Search for  Products | Farmers should be able to search for available products in fertilizers, seeds, pesticides | High | completed | ctd | ctd | ctd | ctd | ctd | ctd |
| FR003 | Product catalog | Manufacturers list all available products like fertilizers,seeds and pesticides. | High | completed | ctd | ctd | In progress | ctd | ctd | ctd |
| FR004 | Product details | Farmers can view productprice,quantit,description,images and reviews. | High | completed | ctd | ctd | ctd | ctd | In progress | ctd |
| FR005 | Shopping cart | Farmers able to add products to cart,view card details,total price and quantity. | High | completed | ctd | ctd | ctd | ctd | ctd | ctd |
| FR006 | Checkout process | Farmers able to complete checkout process by delivery address,payment details and order confirmation | High | completed | ctd | ctd | In progress | ctd | ctd | ctd |
| FR007 | Order tracking | Farmers able to track order status, confirmation,processing,shipping and delivery | High | completed | ctd | ctd | ctd | ctd | ctd | ctd |
| FR008 | Order history | Farmers able to view order history,order date,status and product details | High | completed | ctd | In progress | ctd | ctd | ctd | ctd |
| FR009 | Product reviews | Farmers able to rate and review products | High | completed | ctd | ctd | ctd | ctd | ctd | ctd |
| FR010 | User profile management | Farmers able to manage name, address,phone number,and password | High | completed | ctd | ctd | ctd | ctd | In progress | ctd |

**Document 5- BRD Template**

**Online Agricultural Product Store**

**LMS\_COEPD\_2025**

**Version 1.0**

**Jaishree**

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1. **Document Revisions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Version Number** | **Document changes** | **Reviewer** | **Approval Date** |
| 15/02/2025 | 0.1 | Initial draft of the project documentation | XYZ | 17/02/2025 |
| 24/02/2025 | 0.2 | Added project objectives and success criteria | XYZ | 25/02/2025 |
| 01/03/2025 | 0.3 | Included stakeholder analysis and elicitation techniques | XYZ | 03/03/2025 |
| 10/03/2025 | 0.4 | Completed functional requirements and RTM | XYZ | 11/03/2025 |
| 20/03/2025 | 0.5 | Updated priority and status in RTM | XYZ | 21/03/2025 |
| 28/03/2025 | 0.6 | Added detailed Business Requirements | XYZ | 30/03/2025 |
| 05/04/2025 | 0.7 | Incorporated Appendices and finalized document | XYZ | 07/04/2025 |
| 15/04/2025 | 0.8 | Final review and formatting adjustments | XYZ | 17/04/2025 |

1. **Approvals**

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **Signature** | **Date** |
| Project Sponsor | Henry | [Signature] | 10/04/2025 |
| Business Owner | john | [Signature] | 10/04/2025 |
| Project Manager | Vandanam | [Signature] | 10/04/2025 |
| Business Analyst | Jaishree | [Signature] | 15/04/2025 |
| Technical Lead | Tyson | [Signature] | 15/04/2025 |
| Quality Assurance lead | Johnson | [Signature] | 15/04/2025 |
| Stakeholder Representative | Shital | [Signature] | 17/04/2025 |
| IT Department Head | Atulya | [Signature] | 17/04/2025 |

**3.RACI Chart for This Document**

**Codes Used in RACI Chart**

* **R** – Responsible (does the work)-Responsible for creating this document
* **A** – Accountable (owns the outcome)-Accountable for accuracy of this document (for example, the project manager
* **S**-Supports -Provides supporting services in the production of this document
* **C** – Consulted (offers input/advice)-Provides input (such as an interviewee)
* **I** – Informed (needs updates, but not directly involved) -Must be informed of any changes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stakeholders** | **Responsible(R)** | **Accountable(A)** | **Consulted(C)** | **Informed(I)** |
| Delivery head | R |  |  |  |
| Project Manager |  | A |  |  |
| Java Developer | R |  |  |  |
| Business Analyst | R |  |  |  |
| Network Admin | R |  |  |  |
| DB admin | R |  |  |  |
| Project Sponsor |  | A |  |  |
| Financial head |  | A |  |  |
| Farmers |  |  | C |  |
| Manufactures |  |  |  | I |
| Testers | R |  |  |  |
| Trainers | R |  |  |  |
| UI/UX Designers | R |  |  |  |

1. **Introduction**

**4.1. Business Goals**

To facilitate farmers in remote areas in accessing agricultural products effectively and efficiently through an online platform.Provide customers with convenient access to high-quality agricultural products while supporting local farmers.

* Enhance Convenience and Transparency
* Promote Sustainable and Informed Farming Practices
* Stimulate Rural Economic Development

**4.2. Business Objectives**

* **Enable Direct-to-Consumer (D2C) Sales for Farmers:**Eliminate middlemen and empower farmers to sell directly to end users, increasing their income and market reach.
* **Provide Consumers with Fresh and Authentic Agricultural Products:**Offer high-quality, locally-sourced, organic or farm-fresh goods with full transparency.
* **Digitize the Agricultural Supply Chain:**Use technology to modernize product listing, order management, logistics, and payments for better efficiency and traceability.
* **Improve Price Transparency and Fairness:**Create a transparent pricing structure where farmers receive fair value for their produce, and customers pay competitive rates.
* **Build a Scalable and Sustainable E-commerce Platform:**Develop a robust digital platform that can handle large numbers of users, products, and transactions with room to expand into new regions or product categories.
* **Reduce Post-Harvest Loss and Waste:**Optimize logistics and cold storage solutions to minimize spoilage and waste during transportation and storage.
* **Enhance Rural Economic Development:**Support rural entrepreneurs, farmer cooperatives, and small vendors through digital tools, training, and consistent sales opportunities.
* **Ensure Excellent Customer Experience:**Provide fast delivery, secure payments, easy returns, and responsive customer support to build trust and retain users.
* **Establish Strategic Partnerships:**Collaborate with NGOs, government bodies, logistics providers, and fintech services to strengthen the ecosystem and improve operations.
* **Achieve Profitability and Sustainable Growth:**Generate consistent revenue through commissions, delivery fees, and premium services while maintaining social impact.

**4.3. Business Rules**

****Product & Listing Rules****

* **Only verified farmers or vendors** are allowed to list products on the platform.
* Each product must include **accurate descriptions, price, quantity, and shelf life**.
* Products must meet **agricultural safety and quality standards** before being approved.
* Organic or certified products must have **official documentation** uploaded during listing.
* Expired or spoiled items must be **removed immediately** by the vendor or flagged by the system.

### ****Order & Payment Rules****

* Orders must be paid **in full before processing** (prepaid model) or have **COD** (cash on delivery) available in specific regions.
* Payment gateways must be **secure and compliant** with local financial regulations (e.g., PCI DSS).
* Refunds are processed only if **products are damaged, expired, or not delivered**.
* Invoices are automatically generated and sent to the customer and seller upon order confirmation.

**Farmer/Vendor Rules**

* Vendors must keep their inventory updated to avoid stock outs or order failures.
* Repeated failure to fulfill orders may result in **temporary suspension or deactivation**.
* Vendors must respond to queries or complaints within **24 hours**.

### ****Customer Rules****

* Customers must provide accurate delivery details to avoid order delays.
* Abuse of return/refund policy may lead to **account suspension**.
* Users must agree to the **Terms & Conditions** before making a purchase.

**Platform Governance Rules**

* The platform reserves the right to **modify prices, offers, or listings** for promotional purposes.
* Data privacy is strictly enforced – no customer or farmer data is shared with third parties without consent.
* All stakeholders must comply with **local laws on food safety, e-commerce, and digital transactions**.

**4.4. Background**

The rise of e-commerce and digital platforms presents an opportunity to bridge this gap by creating a direct connection between producers and consumers. The **Online Agricultural Product Store** is envisioned as a digital platform that enables farmers to sell their products directly to customers through an easy-to-use website or mobile app.

By leveraging technology, this platform aims to:

* Eliminate intermediaries,
* Ensure fair pricing for farmers,
* Provide consumers with fresh, traceable agricultural goods,
* Optimize logistics and reduce post-harvest wastage,
* Empower rural communities through market access and digital literacy.

This initiative is particularly relevant in the context of growing digital adoption, the push for self-sustaining rural economies, and increased awareness among consumers about healthy and sustainable food sources. The platform acts as a modern solution to long-standing challenges in agricultural marketing and supply chain management.

**4.5.Project Objective**

* To Develop a User-Friendly E-commerce Platform:

Create a responsive, easy-to-navigate website and mobile app tailored for farmers and agricultural businesses, including support for multiple regional languages.

* To Increase Accessibility of Quality Agricultural Products:

Ensure timely availability of verified seeds, fertilizers, pesticides, tools, and equipment across urban and rural areas.

* To Enhance Farmer Awareness and Digital Literacy:

Provide training materials, how-to guides, and customer support to help farmers effectively use the platform and make informed purchase decisions.

* To Integrate Region-Based Product Recommendations:

Offer location-specific suggestions based on climate, soil type, and crop patterns to increase yield and minimize waste.

* To Establish a Reliable Logistics and Delivery System:

Partner with local delivery networks or set up distribution hubs to ensure last-mile delivery even in remote areas.

* To Build Trust Through Transparency and Quality Assurance:

Display verified seller information, product certifications, customer reviews, and return/refund policies to gain user confidence.

* To Promote Sustainability and Eco-Friendly Practices:

Feature organic and environmentally friendly products, and promote their benefits through educational campaigns.

* To Foster Partnerships with Agri-Experts and Institutions:

Collaborate with agricultural universities, NGOs, and government schemes to enhance platform credibility and outreach.

* To Monitor and Improve Platform Performance:

Use analytics to track user behavior, sales trends, and regional demand to continuously refine offerings and services.

* To Achieve Scalability and Long-Term Viability:

Build a sustainable business model that allows for expansion into new regions and integration of additional agri-services (e.g., crop advisory, weather updates, and farm financing).

**4.6.Project Scope**

* **Design and Development of an E-commerce Platform**

Responsive website and/or mobile application for users to browse, search, and order products.

* **Farmer/Vendor Onboarding System**

Registration, verification, and product uploading features for farmers and cooperatives.

* **Product Listing and Inventory Management**

Tools for managing categories (fruits, vegetables, grains, etc.), availability, pricing, and stock levels.

* **Order Management System**

End-to-end order processing: cart, checkout, payment, order tracking, and confirmation.

* **Secure Payment Gateway Integration**

Support for UPI, cards, net banking, and possibly cash-on-delivery (COD).

* **Logistics & Delivery Module**

Partner with delivery services or manage in-house fulfillment; include delivery tracking and route optimization.

* **Customer Account & Support Features**

User registration/login, order history, reviews, refund/return system, and chat bot/live support.

* **Marketing & Promotions Tools**

Coupon codes, seasonal offers, social media integration, email alerts, and push notifications.

* **Admin Dashboard**
* Centralized platform for managing farmers, customers, orders, payments, analytics, and platform settings.
* **Training and Support for Farmers**

Provide on boarding guides, video tutorials, or in-person training for non-tech-savvy users.

**4.6.1. In Scope Functionality**

* **User Registration & Login:**For farmers, customers, and admins to access personalized features.
* **Product Catalog & Search:**Browsing products by category, filters, and keyword search.
* **Farmer/Vendor On boarding:**Sign-up, profile setup, product upload, and approval process
* **Inventory Management:**Real-time stock updates, availability tracking, and notifications.
* **Order Placement & Checkout:**Add to cart, place orders, select delivery method, and confirm purchase.
* **Online Payments Integration:**Support for UPI, cards, net banking, and basic COD options.
* **Delivery Tracking:**Users can track order status from dispatch to delivery.
* **Customer Support Module:**FAQ section, contact form, live chat or ticket system.
* **Ratings and Reviews:C**ustomers can rate products and vendors
* **Analytic Dashboard:**Basic reporting on sales, customers, inventory turnover, etc.

**4.6.2. Out Scope Functionality**

* **AI-Based Product Recommendation System:P**lanned for future phase based on customer behavior analysis.
* **Multi-language Support:**Limited to a primary language (e.g., English).
* **International Shipping:**Focus remains on local and regional delivery only.

1. **Assumptions**

* **Internet Access for All Users:**Farmers, customers, and delivery partners will have reliable internet or mobile data access to use the platform.
* **Basic Digital Literacy:**Farmers and users will have a basic understanding of how to use smartphones or will be trained accordingly.
* **Availability of Quality Agricultural Products:**Partnered farmers will consistently supply good-quality, fresh products for sale.
* **Local/Regional Delivery Feasibility:**Delivery logistics will function effectively within the targeted service area or region.
* **Secure Online Payment Infrastructure:**Customers will have access to secure and functional online payment systems (e.g., UPI, net banking).
* **Farmer On boarding Support is Available:**Local staff, NGOs, or cooperative societies will assist in on boarding and supporting farmers.
* **Regulatory Compliance Will Be Met:**The platform will operate under current government regulations for e-commerce, food safety, and digital transactions.
* **Customer Support Resources Are in Place:**There are sufficient resources (team, tools, training) to manage customer queries, complaints, and order issues.
* **Vendor and Delivery Partner Reliability:**Vendors and delivery partners will fulfill their responsibilities on time to maintain customer satisfaction.

1. **Constraints**

* **Budget Limitations:T**he project has a fixed budget, which may restrict advanced features, marketing scale, or platform integration.
* **Timeline Restrictions:**The platform must be developed and launched within a specific time frame (e.g., 4–6 months), which limits extensive feature testing or multiple iterations.
* **Limited Technical Skills Among Farmers:**Many farmers may have minimal experience with smartphones or online selling, which could slow down on boarding and adoption
* **Geographical Delivery Limitations:**Logistics may only support delivery in certain regions or districts, reducing the initial reach of the platform.
* **Internet Connectivity Issues in Rural Areas:**Unreliable or slow internet in some farming communities can affect platform access and real-time updates.
* **Regulatory and Compliance Constraints:**Legal rules for selling perishable goods, handling payments, or operating an online marketplace must be strictly followed.
* **Language and Localization:**Initial platform version may only support one language, which could exclude some user groups.
* **Limited In-House Technical Team:**A small or outsourced IT team may restrict the ability to make rapid updates or support during peak traffic times.
* **Customer Trust & Brand Awareness:**As a new platform, building trust with users (both farmers and consumers) will take time and effort.

1. **Risks**

**TechnologicalRisks**

* **Platform Downtime:**Unexpected crashes or server issues can affect user trust and transactions.
* **Cybersecurity Threats:**Risk of hacking, data breaches, or payment fraud if security isn't tight.
* **Scalability Challenges:**The platform may not handle sudden spikes in users or orders during peak seasons.
* **Integration Failures:**Issues while connecting with third-party tools (payment gateway, logistics API, SMS/OTP systems).
* **Poor Mobile Optimization:**If the mobile app/site isn't well-optimized, rural users may face usability issues.

**Skills Risks**

* **Limited Tech Skills Among Farmers:**Many farmers may struggle with app usage, leading to low adoption.
* **Shortage of Skilled Developers:**Delays or quality issues if the development team lacks required experience.
* **Training Gaps:**Without proper training, farmers or customer support may misuse or under utilize the platform
* **Difficulty in Technical Support:**Slow issue resolution due to limited support staff or language barriers.

**Political Risks**

* **Policy Changes on Agri-Commerce:**New government policies could restrict or change online sales rules.
* **Taxation & Compliance Issues:**Complex GST or local tax compliance may hinder vendor participation.
* **Licensing & Food Safety Laws:**Non-compliance with local food regulations can lead to fines or shutdown.
* **Internet Shutdowns or Restrictions:**Political unrest or regulation may cause internet disruptions, affecting operations.

**Business Risks**

* **Lack of Consumer Trust:**New platforms face hesitation from customers regarding product quality and delivery.
* **Vendor Dropout:**Farmers may stop selling if sales are low or if operational processes feel too complex.
* **High Operational Costs:**Logistics, returns, and cold storage could increase expenses and reduce profit margins.
* **Competitive Pressure:**Competing platforms may offer better deals, reducing market share.
* **Delayed ROI:**The project may take longer than expected to break even or generate returns.

**Requirements Risks**

* **Unclear or Changing Requirements:**Stakeholders may shift goals mid-project, leading to scope creep.
* **Incomplete User Feedback:**Failure to gather real-world feedback from farmers or customers could result in irrelevant features.
* **Overlooking Edge Cases:**Special scenarios (e.g., bulk orders, returns in rural areas) may be missed during planning.
* **Poor Requirements Documentation:**Misunderstood or undocumented requirements can lead to rework and delays.

**Other Risks**

**Internal Risks**

* **Resource Allocation:**Inadequate staffing or skill mismatches within the project team could hinder the progress.
* **Communication breakdown:**Ineffective communication within the team may lead to misunderstandings and mistakes.
* **Process Inefficiencies:**Existing internal processes may slow down project execution.

**External Risks**

* **Market Competition:**Competitors may launch similar platforms,impacting user adoption and market share.
* **Regulatory Compliance**:Changes in agricultural policies or e-commerce regulations could affect project viability
* **Economic Factors**:Economic downturns may reduce farmers purchasing power,leading to lower sales.

**BA Risks:**

* Incomplete requirement gathering from the farmers
* Improper planning for the project
* Miscommunication between stakeholders resulting in unclear requirements
* Unclear project objectives and scope
* Insufficient knowledge of the technology required to develop the online agriculture product store

**Project Risks:**

* Budget overrun
* Delays in project delivery
* Technical challenges with integration and deployment
* Inadequate IT infrastructure and internet connectivity in remote areas leading to difficulty in accessing the online store
* Website not working properly, farmers not able to put details in website, Unrealistic expectation from the client.
* Budget may be insufficient for development and implementation of the project which leads to financial constrains
* User acceptance is the main risk in the project because customer can rate low which may leads to reaching the customer will be difficult.

**Process Risks:**

* Lack of team support
* No proper knowledge on coding and testing
* Continous change requirement

**Mitigation Strategies:**

* **Stakeholder engagement**:Conduct regular meetings with farmers and suppliers to ensure alignment and gather continuous feedback.
* **Prototyping**:Develop a Minimum Viable Product(MVP) to test assumptions and gather early user feedback,allowing for iterative improvements
* **Contingency Planning**:set aside a portion of the budget for unforeseen issues and delays to ensure financial flexibility.
* **Training and support:**Provide training sessions for farmers to ease the transition to the new system and encourage user adoption.
* **Risk Monitoring:**Establish a risk management plan that includes continuous monitoring and reporting of identified risks throughout the project life cycle.
* **Requirements Gathering:**Inadequate gathering and analysis of requirements can results in misunderstanding or overlooked needs,affecting the final products outcome.

1. **BusinessProcessOverview** 
   1. **Legacy System (AS-IS)**

**Current State:**

* Farmers struggle to procure essential products due to remote locations
* Limited direct communication with manufacturers
* We don’t have any existing process or web application at present for ordering things
* Farmers often face difficulty in finding the right products according to their specific crop requirements

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

**Desired State:**

* To build web application where the farmers can easily order the pesticides
* Online platform enabling direct access to manufacturers products
* Streamlined purchasing and delivery process

**Points for gap analysis:**

* **Efficiency gains**:Reduced time spent on procurement to visiting physical stores
* **Product diversity:**Increased variety of products available compared to local offerings
* **Cost savings**:Potential for lower prices and bulk purchasing discounts through online sourcing
* **User experience:**Improved customer service and support through the platform.

**Process Flow Diagram**

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1. **Business Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **REQUIREMENT ID** | **REQUIREMENT CATEGORY** | **REQUIREMENT DESCRIPTION** | **PRIORITY** |
| BR001 | User login system | Users(manufacturers and farmers)should be able to login to access different functionalities | 9 |
| BR002 | Product catalog | A catalog of fertilizers,seeds and pesticides should be available with detailed information,including pricing and manufacturer details. | 10 |
| BR003 | Product search | Users should be able to search for specific products within the catalog | 8 |
| BR004 | User registration | Farmers should be able to create an account using their mail id and password.New users can create a new account with email id and password. | 7 |
| BR005 | Purchase and add to buy-later list | Farmers should be able to buy products or add them to buy-later list after logging-in. | 8 |
| BR006 | Payment gateway | The payment gateway should support multiple options,including COD,credit/debit card and UPI. | 10 |
| BR007 | Order confirmation email | Users should receive email confirmations regarding their order status | 6 |
| BR008 | Delivery tracker | A delivery tracker should be available for users to track the progress and location of their orders. | 9 |
| BROO9 | Web and mobile accessibility | The online store should operate as both a web and mobile application for user accessibility. | 7 |
| BR010 | CSR initiative duration | The project duration should be 18 months as part of CSR initiative. | 5 |

1. **Appendices**
   1. **List of Acronyms**

B2C-Business to Consumer

GST- Goods and Services Tax

COD-Cash on Delivery

CRM-Customer Relationship Management

FAQ-Frequently Asked Questions

UI- User Interface

IT-Information Technology

KPI- Key Performance Indicator

OTP- One Time Password

ROI-Return on Investment

SLA-Service Level Agreement

SMS- Short Message Service

UPI-Unified Payments Interface

UX-User Experience

SKU-Stock Keeping Unit

* 1. **Glossary of Terms**
* **Vendor-A registered farmer or seller who lists agricultural products on the platform.**
* **Customer-An end user who purchases products through the online store.**
* **Marketplace-The digital platform where buyers and sellers interact.**
* **Cart-A virtual space where customers store selected products before checkout.**
* **Checkout-The final step in the purchase process where order and payment are confirmed.**
* **Order Fulfillment-The complete process of packaging, dispatching, and delivering a customer’s order.**
* **Product Catalog-The organized collection of available agricultural products displayed on the platform.**
* **Inventory-The current stock level of listed products.**
* **Refund Policy-Terms under which customers can return products and get their money back.**
* **Cold Chain Logistics-Temperature-controlled supply chain necessary for perishable goods.**
  1. **Related Documents**
* **Business Requirements Document (BRD)-**Outlines high-level business needs and expectations for the platform.
* **Software Requirements Specification (SRS)-**Technical document detailing system functionality, performance, and constraints.
* **Project Charter-**A formal document that initiates the project, stating objectives, scope, and stakeholders.
* **Risk Management Plan-**Identifies and outlines strategies for managing risks in the project.
* **User Training Manual -**Step-by-step guide for farmers and customers to navigate the platform.
* **Testing Strategy & Test Cases-**Documentation of testing methodology and scenarios to ensure quality.
* **Wire frames / UI Mock-ups-Visual** representations of the platform’s interface and design layout.