## COEPD - Traditional Development

Capstone Project 1 - Part -2/3 - 100 Marks

**Ques 1:** 4 Quarterly Audits are planned Q1, Q2, Q3, Q4 for this Project What is your knowledge on how these Audits will happen for a BA?

**Ans:** In a project, quarterly audits are typically used to assess the progress, identify any potential issues, and ensure that the project is on track to meet its goals within the defined budget and timeline. For a Business Analyst (BA), these audits serve as checkpoints where you can review and validate whether the business requirements are being met and if the project is adhering to its scope.

Here's how quarterly audits may unfold from the perspective of a BA:

- 1. Audit During Q1 (First Quarter Audit) Initial Assessment and Requirement Gathering:
  - **Objective:** The primary objective of the first quarterly audit is to ensure that the project has a clear understanding of the requirements and that the project is progressing according to the business objectives.
  - BA's Role:
    - Requirement Validation: Ensure that all initial requirements have been gathered from stakeholders (Mr. Henry, Peter, Kevin, Ben, etc.). This may involve checking if the Business Requirements Document (BRD) and Functional Requirements Document (FRD) have been completed.
    - **Stakeholder Alignment:** Verify that there is alignment between the business stakeholders and the project team on what the goals and deliverables are.
    - **Scope Review:** Ensure that the scope of the project is well-defined and no unnecessary features have been introduced.
    - **Risks Identification:** Identify and report any risks or challenges that could affect the project's progression, such as issues with technology or unclear requirements.

### • Deliverables for Q1 Audit:

- Completed BRD and FRD.
- A list of key stakeholders, their concerns, and any changes to requirements.
- An updated scope and timeline for the project.

# 2. Audit During Q2 (Second Quarter Audit) - Design and Development Check:

• **Objective:** The focus of the second quarterly audit is on whether the requirements are being implemented according to the documented business needs and if any adjustments are necessary.

- BA's Role:
  - **Tracking Progress:** Review whether the development team (developers, testers, etc.) is adhering to the functional requirements outlined in the FRD.
  - User Stories and Use Cases: Ensure that user stories are being implemented and that any changes in business needs have been properly addressed.
  - **Communication with Stakeholders:** Confirm that regular communication is maintained with stakeholders (like Mr. Henry and the farmers), and that any feedback is being incorporated into the design.
  - **Design Feedback:** As the application's UI/UX is crucial, ensure that the design is aligned with user needs. Review prototypes or wireframes if available.
  - **Testing Strategy:** Ensure that the project has a clear testing strategy in place, and review if test cases are aligned with the business requirements.
- Deliverables for Q2 Audit:
  - Updated FRD and any modified business requirements.
  - Progress on product design (e.g., mock-ups, wireframes, prototypes).
  - Documentation of any issues or changes raised by stakeholders.
  - Test plans and test case documents.

# 3. Audit During Q3 (Third Quarter Audit) - Mid-Project Evaluation

- **Objective:** By Q3, the project should be in its implementation phase, so this audit will focus on the overall progress of the project. It will assess if the project is on schedule, within budget, and still aligned with the initial business goals.
- BA's Role:
  - **Requirement Fulfilment:** Confirm that all major features have been developed according to the business requirements and that they are meeting the needs of farmers, manufacturers, and admins.
  - User Acceptance Testing (UAT) Preparation: Ensure that UAT is planned and that end-users (farmers, manufacturers) are involved in testing the product.
  - **Stakeholder Updates:** Meet with stakeholders (Mr. Henry, Mr. Pandu, etc.) to check whether the product is meeting their expectations and gather feedback for any necessary changes.
  - **Risk Assessment:** Identify and document any risks or issues that could affect the final delivery. This could include delays, technical problems, or unaddressed stakeholder concerns.
- Deliverables for Q3 Audit:
  - Confirmation of the completed features and functionalities.
  - User feedback and any adjustments required based on that feedback.

- UAT plans and confirmation of key user testers.
- A detailed risk assessment report.
- Final adjustments to scope if needed.

## 4. Audit During Q4 (Fourth Quarter Audit) - Final Review and Project Closure:

- **Objective:** The Q4 audit will review the final product against the original business requirements and assess whether the project has met its goals. The final deliverables should be ready for deployment.
- BA's Role:
  - **Business Requirements Fulfilment:** Ensure that all business requirements have been fulfilled and that the product is fully aligned with the original vision (as set by Mr. Henry and the other stakeholders).
  - Final UAT Results: Ensure that any issues raised during UAT have been resolved and that the application works as expected from a business perspective.
  - **Post-Implementation Review:** Ensure there is a plan in place for postlaunch support, addressing any potential issues and feedback from users (farmers, manufacturers).
  - **Stakeholder Approval:** Get formal sign-off from the stakeholders on the final product.
  - **Documentation:** Provide comprehensive documentation for future reference, including user manuals, deployment notes, and maintenance procedures.

### • Deliverables for Q4 Audit:

- Final product sign-off from stakeholders.
- *o* UAT results and any remaining issues.
- *o* Documentation on product deployment and any post-launch support plans.
- A complete project closure report detailing what went well and any lessons learned.

**Ques 2:** Before the Project is going to Kick Start, The Committee asked Mr Karthik to submit BA Approach Strategy Write BA Approach strategy (As a business analyst, what are the steps that you would need to follow to complete a project – What Elicitation Techniques to apply, how to do Stakeholder Analysis RACI/ILS, What Documents to Write, What process to follow to Sign off on the Documents, How to take Approvals from the Client, What Communication Channels to establish n implement, How to Handle Change Requests, How to update the progress of the project to the Stakeholders, How to take signoff on the UAT- Client Project Acceptance Form ) Your Team Project Manager - Mr Vandanam Senior Java Developer - Ms. Juhi Java Developers - Mr Teyson, Ms Lucie, Mr Tucker, Mr Bravo Network Admin - Mr Mike DB Admin - Mr John. Testers - Mr Jason and Ms Alekya BA - You Technical Team have assembled to discuss on the Project approach and have finalised to follow 3-tier architecture for this project.

**Ans:** As a BA, I approach to ensure structured collaboration, clear communication, and traceable documentation aligned with project goals. With a 3-tier architecture and skilled technical team, we aim to deliver a scalable, user-friendly platform that bridges the gap between farmers and suppliers.

**Business Analyst Approach Strategy** for the **Online Agriculture Products Store**, aligned with industry best practices and tailored to the team structure, project setup, and 3-tier architecture.

## **Business Analyst Approach Strategy - Online Agriculture Products Store:**

## **1.** Requirement Elicitation Strategy:

To gather detailed and accurate business and functional requirements from all stakeholders:

- Elicitation Techniques:
  - **Stakeholder Interviews**: With Mr. Henry, Mr. Pandu, Mr. Dooku, Peter, Kevin, and Ben.
  - **Workshops**: Cross-functional sessions with SOONY Committee & APT team.
  - **Questionnaires/Surveys**: For end-users like farmers in the pilot area.
  - **Document Analysis**: Reviewing similar applications or existing manual processes.
  - **Brainstorming Sessions**: With Project Manager & Developers (for feasibility).
  - **Prototyping**: Wireframes and UI mock-ups for early feedback.

# 2. Stakeholder Analysis & RACI Matrix:

- Stakeholder Identification (Internal & External):
  - o Internal: Dev Team, Testers, PM, Admins.
  - External: SOONY Committee, End-Users (Peter, Kevin, Ben).
- RACI Model (Sample):
  - **R** = Responsible, **A** = Accountable, **C** = Consulted, **I** = Informed

Task	BA	PM	Developers	Testers	Admins	Committee
Requirement Gathering	R	A	С	С	С	Ι
Document Sign-Off	A	R	I	I	I	A
UAT Co- ordination	R	A	С	R	I	A

# 3. Documentation Plan:

# • Documents to be Created:

- Business Requirement Document (BRD)
- o Functional Requirement Specification (FRS)
- Use Case Diagrams / Process Flow Charts
- o Wireframes
- Stakeholder Communication Plan
- o Change Request Register
- Product Backlog (JIRA)
- Traceability Matrix
- o UAT Plan & Client Project Acceptance Form

# 4. Sign-Off & Approval Process:

- Steps:
  - i. Share draft documents with stakeholders via email/SharePoint.
  - ii. Conduct walkthrough meetings to clarify doubts.
  - iii. Collect feedback, update the documents.
  - iv. Re-share final version and request formal sign-off (email or DocuSign).
  - v. Archive signed versions for traceability.

# 5. Communication Strategy:

- Channels:
  - **Email**: Formal approvals and key updates.
  - **MS Teams / Zoom**: Daily stand-ups, workshops, walkthroughs.
  - **Project Management Tool (JIRA/Confluence)**: Task tracking, backlog maintenance.
  - WhatsApp Group (if approved): Quick queries with Dev/Test team.
  - Weekly Status Reports: Sent to Mr. Henry, Mr. Dooku, and PM.

# 6. Change Request Handling Process:

- Change request is logged in a **Change Request Form**.
- Impact analysis done with Dev, Test, PM, and DB teams.
- Re-estimate cost/timeline (if needed).
- Seek Committee's approval.
- Update related documentation (FRS, backlog, traceability).
- Inform impacted stakeholders.

# 7. Progress Reporting to Stakeholders:

• Daily Stand-ups: Internal team.

- Weekly Reports: Sent to Mr. Henry & Committee covering:
  - Status summary
  - o Completed tasks
  - o Risks/issues
  - Upcoming deliverables
- Monthly Steering Committee Meetings: Presentation by PM & BA.

### 8. UAT & Project Acceptance Process:

- Prepare **UAT Plan** with test scenarios mapped to requirements.
- Share plan with Client and get approval.
- Coordinate UAT execution with testers and client users.
- Capture feedback in UAT Defect Log.
- Once all critical defects are resolved:
  - o Share UAT Sign-Off Document / Project Acceptance Form.
  - Obtain formal client approval to move to Go-Live.

Ques 3: Explain and illustrate 3-tier architecture?

**Ans:** 3-Tier Architecture is a software design pattern that separates an application into three logical layers:

- 1. Presentation Layer (Client Tier)
- 2. Application Layer (Business Logic Tier / Middle Tier)
- 3. Data Layer (Database Tier)

Each layer is responsible for specific functionalities, making the system modular, scalable, secure, and easy to maintain.

- 1. Presentation Layer (Client Tier):
  - In this layer, it handles UI/UX and interaction with users.
  - Uses technologies like HTML, CSS, JavaScript, ReactJS, Angular.
  - Example:
    - Farmers browsing seeds, fertilizers on web/mobile app.
    - Manufacturers uploading product images.
- 2. Application Layer (Business Logic Tier):
  - It processes user input, applies business rules, manages communications between the client and the database.
  - Uses Technologies like Java (Spring Boot), Python, .NET.
  - Example:
    - Processes farmer's order.

- Validates login credentials.
- Applies pricing logic or availability rules.
- 3. Data Layer (Database Tier):
  - It stores and retrieves data.
  - Uses technologies like MySQL, Oracle.
  - Example:
    - Stores product details, user profiles, orders.
    - Fetches available products for a selected category.



- Advantages of 3-Tier Architecture:
- Modularity: Easier to update or replace one tier without affecting others.
- **Security**: Direct access to data is restricted through the business layer.
- **Scalability**: Each tier can be scaled independently.
- Maintainability: Easier to debug and maintain codebase.

**Ques 4:** Business Analyst should keep What points in his/her mind before he frames a Question to ask to the Stakeholder (5W 1H – SMART – RACI – 3 Tier Architecture – Use Cases, Use case Specs, Activity Diagrams, Models, Page designs).

**Ans:** Before asking stakeholders any question, a BA should:

- Know the context and role of the stakeholder.
- Frame questions using 5W1H, SMART, and RACI.
- Think in terms of system layers (3-tier) and user interaction flows (use cases, wireframes).
- Use diagrams and visual aids to validate understanding and trigger deeper discussion.

### 1. 5W 1H Framework:

• Helps in framing **complete and clear questions**:

- Who is the user/stakeholder involved?
- What is the problem or requirement?
- When is the action performed (frequency, time)?
- Where does the activity happen (location, interface)?
- Why is this important to the user or business?
- **How** is the activity currently done (current process)?
- **Example**: "How do farmers currently place orders for fertilizers, and what challenges do they face during this process?"

### 2. SMART Technique (for questioning and requirement validation):

- Ensures you're guiding toward **high-quality**, actionable requirements:
  - Specific What exact functionality is needed?
  - Measurable Can the outcome be quantified?
  - Achievable Is it realistic with current tech/budget?
  - Relevant Is it aligned with project goals?
  - Time-bound Is there a time expectation or deadline?
- **Example**: "Can we define how many product types should be supported at launch?"

### 3. RACI Understanding:

- Know who to ask, who approves, and who just needs to be informed:
  - Responsible Does the stakeholder use the feature directly?
  - Accountable Will they approve or fund this?
  - Consulted Do they provide domain knowledge?
  - Informed Do they need updates on changes?
- **Example:** "Can you please clarify who will be responsible for updating the product inventory on the platform is it the manufacturing company, a dedicated admin team, or someone from your internal operations?"

### 4. 3-Tier Architecture Awareness:

- Helps you align your questions with the system structure:
  - **Presentation Layer** What should the user see/do on the screen?
  - **Application Layer** What logic or flow should happen when the user interacts?
  - o Data Layer What data do we need to store, fetch, update?
- **Example**: "Should farmers be able to filter products based on availability or price?" (Presentation + Application)

### 5. Use Cases & Use Case Specifications:

- Be ready to think in terms of user goals and system responses:
  - o Identify Actors: Who is interacting with the system?
  - o Determine Primary Scenarios: What does the user want to accomplish?
  - o Explore Alternate/Exception Flows.

- **Example**: "What should happen if a farmer adds an out-of-stock product to the cart?"
- 6. Activity Diagrams & Models:
  - Understanding workflows helps you **visualize processes** before you ask questions:
    - Ask questions that help define **process steps**, decisions, and alternate **paths**.
    - Use responses to build diagrams for validation.
  - **Example**: "After order placement, who receives the notification and in what sequence?"

## 7. Wireframes:

- Thinking visually helps you ask **user interface-specific questions**:
  - o "What fields should be on the Product Upload screen?"
  - "Do you expect the farmer dashboard to show order history?"
- Bringing up basic mock-ups to drive more meaningful feedback.

Ques 5: As a Business Analyst, What Elicitation Techniques you are aware of? (BDRFOWJIPQU)

**Ans:** As a BA, your choice of technique depends on:

- Type of stakeholder (e.g., end-user vs sponsor)
- Stage of the project
- Nature of the requirement (functional, non-functional, UI, etc.)
- Availability of stakeholders

Elicitation Techniques: BDRFOWJIPQU

Letters	Technique	Purpose
В	Brainstorming	To generate a wide range of creative ideas or solutions in
		a group setting.
D	Document Analysis	To extract requirements from existing documentation,
		forms, manuals, or systems.
R	Reverse Engineering	To understand how an existing system works when
		documentation is lacking.
F	Focus Group	To gather insights or expectations from a group of users
		or stakeholders with similar roles.
0	Observations	To understand real-world workflows by watching users
		perform tasks.
W	Workshops	To collaboratively gather requirements and resolve
		conflicts in real-time with stakeholders.
J	JAD	Structured workshops bringing IT and business together
		to define requirements.

I	Interviews	One-on-one or small group sessions for deep-dive	
		understanding of stakeholder needs.	
Р	Prototyping	To validate and refine requirements using mock-ups or	
		wireframes.	
Q	Questionnaires /	To collect feedback or requirements from a large group	
	Surveys	of stakeholders quickly.	
U	Use Cases	To break down how users interact with a system, identify	
		steps, and find pain points.	

**Ques 6:** Which Elicitation Techniques can be used in this Project and Justify your selection of Elicitation Techniques?

Prototyping Use case Specification Document Analysis Brainstorming

Fertilizers, seeds, pesticides details from the manufacturers and should be able to display them to the Farmers.

To gather the business requirements from the client, you went to SOONY and met Mr. Henry. When Mr. Henry was asked about the project and what are they expecting from the project, Mr. Henry stated that he is expecting to have a login for all its users (fertilizers, seeds, pesticides manufacturers and Farmers), a product catalogue of fertilizers, seeds, pesticides, a search option to search for products, payment process, and delivery tracking.

After doing the stakeholder analysis, you have found out that Peter, Kevin, Ben are the key stakeholders and you have scheduled an appointment to meet them. After meeting with them and trying to gather the stakeholder requirements, Kevin said that, a Farmer should be able to browse through the products catalogue once they visit the website and need to have a search option so that they can search for any product they need. Peter said that, if a farmer wants to buy any product or add them to buy-later list, they need to login first using their email id and password. If it is a new user, then they can create a new account by submitting their email ID and creating a secure password. Ben added saying that, Farmers needs to have an easy-to-use payment gateway which should include cash-on-delivery (COD), Credit/Debit card and UPI options so that the user's experience should be better. Kevin mentioned that, a user gets an email confirmation regarding their order status. A delivery tracker to track the whereabouts of their order.

Identify Business Requirements (which includes Stakeholder Requirements):

BR001 – Farmers should be able to search for available products in fertilizers, seeds, pesticides BR002 – Manufacturers should be able to upload and display their products in the application

**Ans:** By combining document analysis, prototyping, brainstorming, and use case specifications, the elicitation process was structured to:

- Bridge the communication gap with non-technical stakeholders.
- Visualize the system for better clarity.
- Ensure the final requirements reflect both business goals and user needs.
- 1. Prototyping:
  - **Use:** To visualize key modules such as login, product catalogue, search bar, payment page, and delivery tracker before development.
  - Justification: Since farmers and manufacturers may not be familiar with technical jargon, showing wireframes helped them express their needs more clearly.

#### 2. Use Case Specifications:

- **Use:** To describe step-by-step interactions for each user (farmer/manufacturer) with the system.
- Justification:

Clarifies user actions like browsing products, creating accounts, adding items to cart, placing orders, and tracking delivery — helpful for both development and testing.

#### 3. Document Analysis:

- **Use:** To understand existing challenges, market needs, agricultural procurement methods, CSR policies by SOONY, and any legacy systems if present.
- Justification:

Helps analyse reports from SOONY, government agriculture schemes, and existing workflows of farmers to avoid missing any critical requirements.

#### 4. Brainstorming:

• **Use:** To generate innovative ideas and gather diverse inputs from key stakeholders like Mr. Henry, Peter, Kevin, and Ben.

### • Justification:

Allowed uncovering expectations like delivery tracking, multiple payment methods, and buy-later options which might not surface in formal interviews.

Business Requirements (which includes Stakeholder Requirements):

ID	Requirements
BR001	Farmers should be able to <b>search for available products</b> in fertilizers, seeds, and pesticides.
BR002	Manufacturers should be able to <b>upload and display their products</b> on the platform.
BR003	The system should provide a <b>login functionality</b> for all users (Farmers & Manufacturers).
BR004	New users should be able to <b>register</b> using their email ID and password.
BR005	Logged-in farmers should be able to add products to cart or a buy-later list.

BR006	The application should support <b>secure payment options</b> : COD, UPI, Credit/Debit
	Card.
BR007	Farmers should receive email confirmations for order placement and updates.
BR008	A delivery tracking system should be available for users to track their orders.

Ques 7: Make suitable Assumptions and identify at least 10 Business Requirements.

**Ans:** Following are the assumptions that have been made to define scope and expectations clearly:

- i. The system will be accessible via both web and mobile platforms.
- ii. Users will include Farmers, Manufacturers (of fertilizers, seeds, pesticides), and System Admins.
- iii. Users from rural/remote areas may have low digital literacy, so the application must be user-friendly and available in regional languages.
- iv. Internet connectivity may be limited in some areas, so the app should be lightweight and responsive.
- v. The platform should allow registration, login, and product browsing without requiring technical knowledge.
- vi. Payment services will be integrated using third-party secure payment gateways.
- vii. The system will include an admin panel for monitoring product listings and resolving disputes.
- viii. Email will be used for order confirmations and delivery updates.
- ix. Products will include detailed descriptions, usage instructions, and prices.
- x. The application will be developed using 3-tier architecture (Presentation, Business Logic, and Data layer).

BR ID	Business Requirement Description
BR001	Farmers should be able to <b>browse and search</b> products by category (fertilizers,
	seeds, pesticides).
BR002	Manufacturers should be able to register, login, and upload product details with
	price, image, and description.
BR003	The system should allow users (Farmers and Manufacturers) to <b>register using email</b>
	ID and password.
BR004	Farmers must log in to add products to the cart or wish list (buy-later list).
BR005	The application should support <b>multilingual UI</b> , including regional languages like
	Hindi, Marathi, Telugu, etc.
BR006	The system should support <b>multiple payment options</b> : UPI, Credit/Debit Cards, Net
	Banking, and Cash on Delivery
BR007	Farmers should receive automated email confirmations and order status updates
	after every transaction.
BR008	A <b>delivery tracking feature</b> should be provided so that farmers can track the status

Identified Business Requirements (BRs) are following:

	of their order in real-time
BR009	The system should allow Admins to <b>monitor, approve, or reject products</b> uploaded
	by manufacturers before publishing.
BR010	Farmers should be able to rate and review products after purchase to improve
	transparency and trust.
BR011	Manufacturers should be able to view orders placed for their products and update
	dispatch status.
BR012	The application should be <b>mobile responsive</b> and optimized for usage on low-
	bandwidth connections.
BR013	A product recommendation feature should be available based on previous
	purchases or searches by the farmer.
BR014	A help and support section should be available for farmers to raise queries and get
	assistance.
BR015	Admins should have access to a <b>dashboard</b> for managing users, tracking
	transactions, and generating reports.

Ques 8: List your assumptions.

**Ans:** Following are the assumption:

1. Platform Availability:

The application will be available on **both web and mobile platforms** to ensure accessibility across devices.

### 2. Target Users:

The key users are **Farmers**, **Product Manufacturers** (fertilizers, seeds, pesticides), and **System Admins**.

### 3. Digital Literacy:

Users in rural areas may have **limited technical knowledge**, so the application must be **simple, intuitive, and user-friendly**.

### 4. Language Support:

The application will support **multiple regional languages** (e.g., Hindi, Marathi, Telugu) for better usability.

### 5. Internet Connectivity:

Since rural areas may have **poor internet connectivity**, the app must be **lightweight**, **responsive**, **and work on low-bandwidth networks**.

### 6. Authentication:

Farmers and manufacturers must **register and log in** to access key features such as purchasing or uploading products.

### 7. Product Types:

The platform will host only **agriculture-related products**: fertilizers, seeds, and pesticides.

### 8. Payment Gateway Integration:

The system will integrate with **trusted third-party payment gateways** to handle UPI, card payments, and COD.

## 9. Delivery Services:

The project assumes that a **logistics/delivery partner** will handle the physical transportation of products.

## 10. Email Communication:

Users will receive **email notifications** for order confirmation, status updates, and account verification.

### 11. Data Management:

A central database will be used to store all user, product, and order data securely.

## 12. 3-Tier Architecture:

The project will follow a **3-tier architecture** — Presentation Layer, Business Logic Layer, and Data Layer — as finalized by the technical team.

### 13. Security:

The application will include **basic security features** such as secure login, password encryption, and safe payment handling.

### 14. CSR Initiative Budget:

The project will be executed within the given **budget of ₹2 Crores** and **timeline of 18 months** as part of SOONY's CSR initiative.

### 15. Stakeholder Involvement:

Mr. Henry, Peter, Kevin, and Ben will remain **actively involved as key stakeholders** throughout the project lifecycle.

**Ques 9:** Give Priority 1 to 10 numbers (1 being low priority – 10 being high priority) to these Requirements after discussions with the stakeholders.

Req. ID	Req. Name	Req. Description	Priority
BR001	Farmer Search Farmers should be able to search for available		8
	for Products	products in fertilizers, seeds, pesticides	
BR002	Manufacturers	Manufacturers should be able to upload and	8

upload their	display their products in the application	
Products		

Once the requirements are finalized, as a business analyst, one of the major roles is to act as a liaison between the client and the project team. To gather the requirements correctly from the client side and then to deliver those requirements to the project team in a way they understand.

To make the project team understand the requirements, you need to convert those requirements into UML diagrams and screen mock-ups.

**Ans:** Following are some Priority that are given to requirements after discussion with Stakeholders:

Req. ID	Req. Name	Req. Description	Priority (1-10)	Justification for Priority
BR001	Farmer Search for Products	Farmers should be able to search for available products in fertilizers, seeds, pesticides.	8	Core functionality for farmers; critical for discoverability of products.
BR002	Manufacturers Upload Their Products	Manufacturers should be able to upload and display their products in the application.	8	Essential for product availability; without it, the catalogue remains empty.
BR003	User Registration & Login	Farmers and manufacturers should be able to register and login securely.	10	Mandatory for secure user access; all other features depend on user authentication.
BR004	Product Browsing & Categories	Farmers should be able to browse by category: fertilizers, seeds, pesticides.	7	Important for user navigation and quick product access.
BR005	Add to Cart / Buy Later List	Farmers can add products to cart or wish list after login.	6	Enhances user experience and purchasing convenience.
BR006	Payment Gateway Integration	The system should support UPI, COD, Credit/Debit Card options.	9	Highly critical for completing transactions; must have multiple payment modes for user convenience.
BR007	Order Confirmation & Notifications	Farmers receive email confirmations and order updates.	7	Keeps users informed and builds trust in the system.
BR008	Delivery Tracking	Farmers should be able to track their order status in real-time.	7	Helps reduce uncertainty; improves user satisfaction.
BR009	Multilingual Support	Application should support regional languages for	6	Important for inclusivity, especially in rural areas

		better usability.		with low English
				proficiency.
BR010	Product Rating	Farmers should be able to	4	Useful for quality
	and Review	rate and review products		feedback but not a
	System	after purchase.		launch-critical feature.
BR011	Admin Approval	Admin should verify	5	Ensures quality control
	of Uploaded	manufacturer uploads		and prevents
	Products	before publishing.		misinformation, but not
				needed for MVP.
BR012	Manufacturer	Manufacturers should view	5	Helps in manufacturer-
	Order Tracking	orders and update dispatch		side order management;
	Dashboard	status.		mid-priority feature.
BR013	Mobile	App must be usable on	9	Critical due to rural user
	Responsiveness	mobile devices and low		base and heavy mobile
		bandwidth.		dependency.
BR014	Help & Support	Farmers should get	6	Important for user trust
	(FAQs / Contact	assistance for issues and		and reducing support
	Us)	queries.		load; mid-priority.
BR015	Admin	Admins should monitor	5	Useful for operations and
	Dashboard &	transactions and user		analytics, but not urgent
	Reporting	activity.		for initial release.

#### Next Steps as a Business Analyst:

Now that priorities are finalized and approved by stakeholders:

### 1. Convert Requirements into UML Diagrams:

- **Use Case Diagrams** for key interactions (e.g., Farmer Search, Manufacturer Upload).
- Activity Diagrams for workflows (e.g., product purchase, order tracking).
- Class Diagrams for system structure.

### 2. Create Screen Mock-ups / Wireframes:

- Login page, Product Listing, Product Detail View, Cart, Payment Page, Delivery Tracker, etc.
- Tools: Balsamiq, Figma, or basic HTML sketches.

### 3. Create the BRD & Functional Specification Document (FSD):

• Include finalized requirements, mock-ups, UML diagrams, scope, assumptions, glossary, etc.

Ques 10: Draw use case diagram.

**Ans:** Use Case diagram for Online Agriculture Product Store:



Ques 11: Prepare use case specs for all use cases.

**Ans:** Use Case Specification Document for the Online Agriculture Products Store project, covering major use cases based on your system.

### **Use Case Specifications:**

- 1. Use Case 1: User Registration & Login:
  - Use Case ID: UC001
  - Actor(s): Farmer, Manufacturer
  - Preconditions: User is not logged in
  - Postconditions: User is logged in and can access the system features
  - Basic Flow:
    - User clicks "Register" or "Login"
    - Enters email and password

- o System validates credentials
- $\circ$   $\;$  If new, registration info is saved; if existing, user is logged in
- Dashboard is displayed
- Exceptions:
  - Invalid email/password
  - o Duplicate registration
  - Server not responding
- 2. Use Case 2: Upload Products:
  - Use Case ID: UC002
  - Actor(s): Manufacturer
  - Preconditions: Manufacturer is logged in
  - Postconditions: Product is submitted for admin approval
  - Basic Flow:
    - Manufacturer navigates to "Upload Product"
    - Fills in product name, category, price, image, description
    - Clicks "Submit"
    - Product goes to Admin for approval
    - Exceptions:
      - o Missing fields
      - Unsupported image format
      - Product already exists
- 3. Use Case 3: Search Products:
  - Use Case ID: UC003
  - Actor(s): Farmer
  - Preconditions: User is logged in
  - Postconditions: Search results displayed
  - Basic Flow:
    - Farmer enters search query or applies filters
    - System retrieves matching products
    - Displays results
  - Exceptions:
    - No internet connection
    - o No results found
- 4. Use Case 4: Browse Product Catalogue:
  - Use Case ID: UC004
  - Actor(s): Farmer
  - Preconditions: Products exist in catalogue
  - Postconditions: Products displayed under category
  - Basic Flow:

- Farmer selects category (e.g., Seeds, Fertilizers, Pesticides)
- System displays all available products under that category
- Exceptions:
  - Empty product list
  - Page not loading
- 5. Use Case 5: Add to Cart / Wishlist:
  - Use Case ID: UC005
  - Actor(s): Farmer
  - Preconditions: User logged in
  - Postconditions: Product added to cart/wish list
  - Basic Flow:
    - Farmer clicks "Add to Cart" or "Save for Later" on product page
    - Product is saved to corresponding list
  - Exceptions:
    - Product already in list
    - Session expired
- 6. Use Case 6: Make Payment:
  - Use Case ID: UC006
  - Actor(s): Farmer
  - Preconditions: Cart is not empty
  - Postconditions: Payment confirmed and order placed
  - Basic Flow:
    - Farmer views cart
    - Proceeds to checkout
    - Chooses payment method (COD, UPI, Card)
    - Payment is processed
    - Order confirmation displayed
  - Exceptions:
    - Payment failed
    - o Network timeout
    - Insufficient funds
- 7. Use Case 7: Order Tracking:
  - Use Case ID: UC007
  - Actor(s): Farmer
  - Preconditions: Order has been placed
  - Postconditions: Farmer can view current status
  - Basic Flow:
    - Farmer navigates to "My Orders"
    - Selects order to track

- System displays real-time order status
- Exceptions:
  - Invalid order ID
  - Status service unavailable

#### 8. Use Case 8: Product Approval by Admin:

- Use Case ID: UC008
- Actor(s): Admin
- Preconditions: Products are submitted by manufacturers
- Postconditions: Product is published or rejected
- Basic Flow:
  - o Admin views submitted products
  - Approves or rejects with comments
  - Notification sent to manufacturer
- Exceptions:
  - Duplicate product
  - o Incomplete product details

**Ques 12:** Activity diagrams:

**Ans:** Activity Diagram for Online Agriculture Store:

