* Q.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?
* A.1: Business Analyst support quarterly audits by ensuring that all business requirements are clearly documented, traceable, and aligned with project goals. BA make sure all the records are documented properly, organized well in order to provide it to the auditors. With the help of excel sheet, BA prepare check points of all the necessary documents to show it at the time of Audit.
* In **Q1**, in order to provide documents to Auditors, BA focus on gathering and documenting stakeholder requirements through the BRD and Stakeholder Meeting Notes. BA start builds Requirement Traceability Matrix (RTM) to track each requirement.
* In **Q2**, BA ensure those requirements are properly mapped to design and functionality. BA Validate screens with users, Review and confirm FRS. BA document Updated RTM, FRS, UI Wireframes/Mockups to show the auditors.
* In **Q3**, BA support testing and UAT by validating test coverage, make sure that all requirements are covered in the test cases. BA make sure all the necessary documents are prepared updated RTM, Test Case Mapping, UAT Scenarios, Feedback Docs.
* In **Q4**, BA assist in creating training documents and ensure all final documentation like the RTM and change logs are audit-ready.

Question 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 ) ?

A.2: - As a Business Analyst, my approach before and during the project includes the following key steps:

* **Initiation & Planning**: - I start with a project meeting involving all stakeholders to define the scope, objectives, and expectations. Stakeholders are identified and analysed using tools like a RACI matrix to clarify responsibilities.
* **Requirement Elicitation**: - I apply a mix of techniques such as workshops, interviews, document analysis, and observation to gather accurate requirements from users and subject matter experts.
* **Documentation**: - I prepare and maintain critical documents like the Business Requirements Document (BRD), Functional/Non-Functional Requirements (FRS/NFRS), System Requirement Specifications (SRS), Use Cases, Wireframes, and a Requirements Traceability Matrix (RTM).
* **Review & Sign-Off**: - Requirements are reviewed with the stakeholders through walkthrough sessions. Revisions are incorporated, and final documents are formally signed off by the client through email or digital signature.
* **Communication Management**: - I establish clear communication channels including daily standups, weekly client meetings, and updates through tools like Jira or Confluence, ensuring transparency and alignment.
* **Change Request Handling**: -I manage changes using a Change Request Form, perform impact analysis in collaboration with the PM and technical team, and only proceed after formal client approval.
* **Progress Tracking**:
The RTM is continuously updated, and bi-weekly reports are shared with stakeholders to keep everyone informed about project progress, issues, and decisions.
* **UAT & Project Closure**:
I coordinate UAT with testers and the client, track feedback, and ensure all issues are resolved. Once accepted, I get the Client Project Acceptance Form signed and archive all project documents.

Q.3: Explain and illustrate 3-tier architecture?

A.3: 3-Tier Architecture is a way of organizing a software application into **three layers**:

* **Presentation Layer** (User Interface): This is the **front-end** part that the user interacts with. Examples: Web pages, mobile app screens, buttons, and forms.
* **Application Layer** (Business Logic): This is the **middle layer** where all the processing happens. It handles things like calculations, discounts/applying rules.
* **Data Layer** (Database): This is the **back-end** where all the data is stored and retrieved. Examples: Databases like MySQL, Oracle, or SQL Server.

In this agriculture platform, 3-tier architecture use to separate the user interface (farmers buying products), the business logic (order processing, product stocks), and the database (product and user data). This makes the system scalable, secure, and easier to maintain.

Q.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).

A.4: - As a **Business Analyst**, it is essential to ask the *right questions* to stakeholders (like Mr. Henry, farmers, manufacturers) to gather clear and actionable requirements. Here's the strategy I follow:

1. **Use the 5W1H Method *(Basic Framework for Framing Questions)***

|  **Type** | **Example Question to Farmers or Committee** |
| --- | --- |
| * **Who**
 | Who will use the application (Farmers, Suppliers)? |
| * **What**
 | What features do you expect (Buy, Track Orders, Feedback)? |
| * **When**
 | When should a user get delivery updates or order status? |
| * **Where**
 | Where will the products be delivered? Will remote areas be covered? |
| * **Why**
 | Why is direct contact with companies important for you? |
| * **How**
 | How should the ordering process work? Online payment or COD? |

**2️. SMART Questions (Specific, Measurable, Achievable, Relevant, Time-bound)**

Frame questions that help get:

* **Specific** needs (Do you need multi-language support?)
* **Measurable** goals (How many users are expected in Phase 1?)
* **Achievable** requests (Can internet speed affect app usage?)
* **Relevant** features (Do farmers really need product reviews?)
* **Time-bound** expectations (When do you expect delivery after order?)

**3️. RACI Matrix Awareness (Know Whom to Ask What)**

Before framing questions:

* Understand who is **Responsible, Accountable, Consulted, Informed**.

**4️. Keep 3-Tier Architecture in Mind**

Frame questions based on the system layers:

* **UI Layer**: Ask farmers what kind of screens or steps they expect.
* **Logic Layer**: Ask PM or Devs about how rules like discounts or cart should work.
* **Data Layer**: Ask DB Admin what product and user details should be stored.

**5️. Use Case-Based Questions**

Prepare use cases like:

* What kind of filters would you use when searching for seeds?
* Do you want to save previous orders?

**6️. Use Case Specifications & Activity Diagrams**

Use **draft diagrams/mockups** to ask:

* Is this the correct process from login → product search → checkout?
* Are there any steps missing or extra?

**7️. Modelling and Page Design Questions**

Bring wireframes or sample screens and ask:

* Do you prefer viewing products in list view or grid view?
* Should we include crop-related suggestions with each product?

Q.5: - What Elicitation Techniques you are aware of? (BDRFOWJIPQU)

A.5: - As a Business Analyst, I use the below **10 key elicitation techniques** to gather requirements effectively: **(BDRFOWJIPQU)**

| **Letter** | **Technique** | **Description** |
| --- | --- | --- |
| **B** | **Brainstorming** | Used with stakeholders and teams to generate ideas and requirements freely. |
| **D** | **Document Analysis** | Reviewing existing documents, reports, or systems to extract useful information. |
| **R** | **Requirements Workshops** | Interactive sessions to gather, validate, and prioritize requirements. |
| **F** | **Focus Groups** | Group discussions with selected users (like farmers) to get targeted feedback. |
| **O** | **Observation (Job Shadowing)** | Watching users perform tasks to understand their needs better. |
| **W** | **Walkthroughs** | Step-by-step review of processes or documents with stakeholders. |
| **J** | **Joint Application Development (JAD)** | Intensive collaboration between BA, developers, and stakeholders to design systems. |
| **I** | **Interviews** | One-on-one sessions with stakeholders to gather detailed information. |
| **P** | **Prototyping** | Showing mock-ups or sample screens to validate UI and functionality. |
| **Q** | **Questionnaires/Surveys** | Structured set of questions sent to a large audience for input. |
| **U** | **Use Cases & Scenarios** | Describing how users will interact with the system to uncover hidden requirements. |

Q.6: - Which Elicitation Techniques can be used in this Project and Justify your selection of Elicitation Techniques?

Prototyping, Use case, Specs, Document Analysis, Brainstorming.

A6. “I used prototyping, use case specs, brainstorming, and document analysis based on stakeholder types to clearly gather and validate all major business and functional requirements.”

Business & Stakeholder Requirements Identified

| **ID** | **Description** |
| --- | --- |
| **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 |
| **SR001** | Farmers should log in or register using email and password |
| **SR002** | Search functionality should be available for product discovery |
| **SR003** | Payment options must include COD, Credit/Debit Card, and UPI |
| **SR004** | Email confirmation should be sent after order placement |
| **SR005** | Order delivery tracker must be available to track delivery status |

Q.7: - Make suitable Assumptions and identify at least 10 Business Requirements?

A.7: - Below are the Assumpations:

**Assumptions:**

1. The application will be accessible via web and mobile.
2. Users include farmers, manufacturers (of seeds, fertilizers, pesticides), and admin.
3. Internet connectivity in rural areas is assumed to be stable enough for basic browsing and transactions.
4. Payment and delivery integration will be done through third-party services.
5. The platform is developed under CSR, so it should be simple, low-cost, and user-friendly.

**Business Requirements (BRs)**

| **BR ID** | **Business Requirement** |
| --- | --- |
| **BR001** | Farmers Should have a **login** for all its users (fertilizers, seeds, pesticides manufacturers and Farmers) |
| **BR002** | A Product **catalogue** of fertilizers, seeds, pesticides |
| **BR003** | A **Search** option to search for products |
| **BR004** | **Payment process**: the application should support **multiple payment options** whichincluding COD, UPI, and credit/debit cards. |
| **BR005** | A **delivery tracking system** should be available for farmers to track the status of their orders. |
| **BR006** | Farmers should be able to **browse** through the products catalogue |
| **BR007** | Farmers should receive **email confirmation and invoice** after placing an order. |
| **BR008** | The platform should have a **simple, user-friendly interface.** |
| **BR009** | Farmers should be able to **add products to a cart** and proceed to order or save for later. |
| **BR010** | There should be **basic customer support** available via chat, call, or email for user assistance. |

Q.8: - List your assumptions?

A.8: - below are my assumptions:

**List of Assumptions**

1. **Internet Access**: Farmers in remote areas have basic internet connectivity to access the application.
2. **Device Availability**: Users (farmers and manufacturers) have access to smartphones or computers to use the web/mobile application.
3. **Multi-User Roles**: The application will support different user types — Farmers, Manufacturers, and Admins
4. **Integrations**: Payment gateway and delivery tracking services will be integrated
5. **Product Categorization**: All agriculture products (fertilizers, seeds, pesticides) can be properly categorized and displayed for search/filter features.
6. **User Friendly** : Since Application is for remote area farmers, it needs to be very simple, highly user friendly

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

A.9: - Below are the given priority:

| **BR ID** | **Business Requirement** | **Priority** |
| --- | --- | --- |
| **BR001** | Farmers Should have a **login** for all its users (fertilizers, seeds, pesticides manufacturers and Farmers) | 9 |
| **BR002** | Manufacturers should be able to upload and display their products in the application  | 10 |
| **BR003** | A **Search** option to search for products | 8 |
| **BR004** | **Payment process**: the application should support **multiple payment options** whichincluding COD, UPI, and credit/debit cards. | **10** |
| **BR005** | A **delivery tracking system** should be available for farmers to track the status of their orders. | 6 |
| **BR006** | Farmers should be able to **browse** through the **products catalogue** | 8 |
| **BR007** | Farmers should receive **email confirmation and invoice** after placing an order. | 6 |
| **BR008** | The platform should have a **simple, user-friendly interface.** | 9 |
| **BR009** | Farmers should be able to **add products to a cart** and proceed to order or save for later. | 7 |
| **BR010** | There should be **basic customer support** available via chat, call, or email for user assistance. | 6 |

Q.10: - Draw use case diagram?

Online Agriculture Product Application

Use case 1: - Customer

Login

Search product by Catalogue

View product list

Add to the cart

 Order placed **Use Case Admin**

Make payment

Track delivery

Receive order confirmation

 Use case 2: Manufacturer

Register/Login

 Add New Product Admin

Edit Product

View Orders from Farmers

Use case 3: - Admin:

* Approve/Reject Products
* Manage Users
* View Reports

Q.11: - Prepare use case specs for all use cases?

A.11: - Below are the Use Case Specifications for the main use cases in your Online Agriculture Product Portal project. Each use case spec includes basic elements: Use Case ID, Name, Actor, Description, Pre-conditions, Flow of Events (Basic & Alternative), and Post-conditions.

**Use Case Specification Table: -**

1. UC1 – Register/Login

* Actor: Farmer, Manufacturer
* Description: Allows user to create a new account or log in to the system.
* Pre-condition: User has internet access.
* Basic Flow:
	1. User enters email and password.
	2. System authenticates credentials.
	3. Access granted.
* Alternate Flow: If new user, system redirects to registration form.
* Post-condition: User is logged into the system.

2. UC2 – Search Products

* Actor: Farmer
* Description: Enables farmers to search for products.
* Pre-condition: User is logged in.
* Basic Flow:
	1. Farmer enters search keyword.
	2. System shows relevant product listings.
* Post-condition: Results displayed on screen.

3. UC3 – View Orders (Manufacturer)

* Actor: Manufacturer
* Description: View orders placed for their products.
* Pre-condition: Products are listed and purchased.
* Basic Flow:
	1. Manufacturer logs in.
	2. Navigates to orders.
* Post-condition: Order details visible.

4 UC4– Approve Products

* Actor: Admin
* Description: Admin reviews and approves products.
* Pre-condition: Product is submitted.
* Basic Flow:
	1. Admin logs in.
	2. Views product queue.
	3. Approves/rejects.
* Post-condition: Product visible or rejected.

5. UC5 – Manage Users

* Actor: Admin
* Description: Admin manages user accounts.
* Pre-condition: Users exist.
* Basic Flow:
	1. Admin logs in.
	2. Views user list.
	3. Can block, unblock, or remove users.
* Post-condition: User database updated.

Q.12: - Activity diagrams?

A.12: - Activity Diagram shows a how system should behave in order to achieve business objectives, follow business rules and implement business logic.

**1. Activity Diagram – User Registration**

Start node

|

Click on Register

|

Enter Email and Password

|

Confirm Password

|

Click Submit

|

System Validates Inputs

|

Decision: Are Inputs Valid?

|-- Yes --> Create Account

|

Show Success Message

|

End node

1. User Login

Start node

|

[Click on Login]

|

[Enter Email and Password]

|

[Click Submit]

|

[System Validates Credentials]

|

<Decision: Are Credentials Correct?>

|-- Yes --> [Login Successful]

|

[Redirect to Home Page]

|

End node

1. Place Order

Start node

|

[Login]

|

[Search Products]

|

[View Product Details]

|

[Add to Cart]

|

[Proceed to Checkout]

|

[Enter Delivery Details]

|

[Choose Payment Method]

|----> [COD] -----------|

|----> [Credit/Debit Card] --|

|----> [UPI] ------------|

|

[Confirm Payment]

|

[Show Order Confirmation]

|

End node

1. Search Product

[Start node]

 |

[Enter Search Query]

 |

[Click Search]

 |

[System Retrieves Results]

 |

<Decision: Are Products Found?>

 |-- Yes --> [Display Products]

 |

 [End]

 |-- No --> [Show 'No Products Found' Message]

 |

 End Node

1. Confirm payment

Start Node

|

[Choose Payment Method]

|----> [COD]

|----> [Credit/Debit Card]

|----> [UPI]

|

[Enter Payment Details]

|

[System Validates Payment]

|

<Decision: Is Payment Successful?>

|-- Yes --> [Show Payment Confirmation]

|

[Update Order Status]

|

[Send Confirmation Email]

|

End node

|-- No --> [Show Error Message]

|

[Retry Payment]