**Question 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 ?

**Answer)** Audit: An Audit means inspection of work for quality and Progress.

Audits generally happen because of the standards the IT Company may be following, the Client or the Project initiated.

In an Audit the BA is checked for the Progress of the Project to the responsible Stakeholders & the Documents, Mail Communications & 5 Incidents – Project.

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| **Stage** | **Quarter 1 Audit Report (Requirement Gathering Phase)** |
| **Completed** | 10 Weeks ( Week 1 to Week 10) |
| **Check List** | BRD Template |
|  | Elicitation Results Repost |
|  | Duplicate Requirements Report |
|  | Grouping of Functionalities/Features- Client Signoff |
|  | Email Communications – To, CC, BCC |

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| **Stage** | **Quarter 2 Audit Report (Requirement Analysis Phase)** |
| **Completed** | 7 Weeks ( Week 16 to Week 23) |
| **Check List** | UML Diagrams |
|  | Business to functional requirements mapping |
|  | Client Signoff Documents |
|  | RTM document version control |
|  | Email Communications – To, CC, BCC |

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| **Stage** | **Quarter 3 Audit Report (Design)** |
| **Completed** | 7 Weeks ( Week 30 to Week 37) |
| **Check List** | Utilization of tools |
|  | Documented evidence on Client communication |
|  | Stakeholder MOM |
|  | Email Communications – To, CC, BCC |

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| **Stage** | **Quarter 4 Audit Report (Development)** |
| **Completed** | 20 Weeks ( Week 40 to Week 60) |
| **Check List** | JAD Session report |
|  | End-user manual preparation document |
|  | BA & Developer MOM |
|  | Email Communications – To, CC, BCC |

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| **Stage** | **Quarter 5 Audit Report (Testing)** |
| **Completed** | 20 Weeks ( Week 58 to Week 78) |
| **Check List** | Test Case Summary  |
|  | Training report to end users |
|  | Lessons learnt document |
|  | Email Communications – To, CC, BCC |

**Question 2)** BA Approach Strategy.

* What are the steps needed to complete a Project ?
1. The steps needed to complete a Project are: Gather requirements through Elicitation Techniques.
2. Document the requirement according to the standards.
3. Model the requirements using UML.
4. Communicate the requirements to the Technical Team. (KT)
5. The tech team takes up to the next stages like design, develop and test.
6. During these stages I will be tracking the requirements through RTM (Requirement Tracability Matrix)
7. Handle Change requests during the development.
8. After the App development is completed we facilitate UAT.
* What Elicitation Techniques do we apply?
1. We have many Elicitation techniques like Brainstorming, Document Analysis, Reverse Engineering, Focus Groups & Observation etc.
* How to do Stakeholder Analysis?
1. Stakeholder Analysis can be done by using RACI Matrix which involves in identifying the Stakeholders and defining their roles & responsibilities within a Project.
* What Documents to write?
1. BRD – Business Requirement Document - Describes the goal of the Project.
2. FRD – Functional Requirements Document – Approach to achieve the Goal.
3. Use Case Document
4. Test Case Document.
* What process to follow to Signoff on the Documents?
1. Signoff can be taken by using email confirmation from the Client. It can be taken on SRS as this is the Primary & important Document.
* How to take Approvals from the Client?
1. By Establishing a formal meeting with the Clients to keep them informed and get continuous feedback.
* What communication channels to establish and implement?
1. Regular meetings, Weekly Status meetings, bi-weekly Sprint reviews & mostly Stakeholder updates.
* How to handle change requests?
* A) Firstly we need to understand if it’s a defect from the previous installations if yes the raise it as a bug so the support team will handle it.
* We need to do Impact analysis, Feasibility Study & Effort estimation.
* Then take the Project Manager approval and then log it into the Change tracker.
* How to update the Progress of the Project to the Stakeholders?
1. Through Weekly status reports & Monthly review meetings.
* How to take Signoff on the UAT?
1. UAT Preparation, Conduct UAT, Fix issues, Acceptance form, Final review meeting, obtain Signoff.

**Question 3)** Explain and illustrate 3 Tier Architecture.

**Answer)** 3 Tier Architecture divides the App into 3 logical layers.

1. Application Layer: The top most layer also known as Presentation Layer. It handles the User interface (UI) ex: Screens, Pages.
2. Business Logic Layer: Middle layer of the Architecture, acts as an intermediary between the Presentation layer and the database layer. This layer contains the core logic of the Application. All the re-usable components, frequently changing components like Governing body rules, Mail servers, Payment gateways, RBI rules for banks etc.
3. Database Layer: Bottom most layer of the Architecture, responsible for storing and retrieving data, database components connecting to databases. Ex: MySQL, Oracle database.

**Question 4)** BA approach strategy for framing questions.

**Answer)** 5W1H Framework is a useful tool for gathering information and understand a situation by answering the questions about Who, What, When, Where, Why & How?

The SMART Technique helps in creating questions like Specific, Measurable, Attainable, Relevant & Time bound.

RACI charts help define & clarify roles and responsibilities within a team by outlining who is responsible, accountable, consulted and informed for each task.

UML or Unified Modeling Language is a standardized way of diagramming and modelling the software systems to aid in design development & communication between the team members.

**Question 5)** Elicitation Techniques.

**Answer)** 1) Brainstorming: It is an effective way to generate lots of ideas on a specific issue and then determine which idea is the best solution.

2) Document Analysis: It is an important gathering technique. Evaluating the documentation of a present system can assist when making AS-IS process documents.

3) Reverse Engineering: In situations like where the Software for an existing system has little or outdated documentation & it is necessary to understand what the system actually does Reverse Engineering is an elicitation technique that can extract implemented requirements from the software code.

4) Focus Group: Is a means of elicit ideas and attitudes about a specific product, service or opportunity in an interactive group environment.

5) Observation: Observing shadowing users or even doing part of their job can provide information of existing processes inputs & outputs.

6) Workshop: Workshops can comprise of 6 to 10 or more users/stakeholders working together to identify requirements.

7) JAD: Joint Application Development is an extended facilitated workshop. It involves collaboration between the Stakeholders & system analysts to identify needs or requirements in a concentrated and focused effort.

8) Interview: An interview is a systematic approach to elicit information from a person or a group of people in an informal or formal setting by talking to the person – the interviewer asking relevant questions and documenting the responses.

9) Prototypes: Prototyping is an attractive idea for complicated & large systems for which there is no manual process or existing system to help determining the requirements.

10) Questionnaire: Questionnaire can be useful for obtaining limited system requirements details from users Stakeholders who have a minor input or are geographically remote.

11) Use Case Specs: Use case specs include 1) Brief description 2) Actors 3) Pre-conditions 4) basic flow of events 5) Alternative flows 6) Key Scenarios 7) Post conditions 8) Special requirements.

**Question 6)** Which Elicitation technique can be used in this Project & justify your selection.

**Answer)** Prototyping: Focuses on usability & user experience.

Use Case Specifications: Defines system functionality & interactions.

Document Analysis: Leverages existing information to minimize gaps.

Brainstorming: Encourages Stakeholder engagement & creativity.

**Question 7)** Identify Business Requirements.

**Answer)** BR001 – Farmers should be able to search for available products in fertilizers, seeds and pesticides.

BR002 – Manufacturers should be able to upload and display their products in the application.

BR003 – Farmers should be able to browse the product catalog without logging in.

BR004 – Farmers should be able to view product details including name, price, description & manufacturer information.

BR005 – Farmers should be able to add products to the wishlist after logging in.

BR006 – Users should be able to register by providing their email id and creating a secure password.

BR007 – A New user should be able to register by providing their email id and creating a secure password.

BR008 – The system should provide a role based access for farmers and manufacturers with appropriate permissions.

BR009 – The Platform should include a secure and and user friendly payment gateway.

BR010 – Payment options should include COD, Credit/debit & UPI.

**Question 8)** List your Assumptions.

**Answer)** Assumption 1. Farmers and Manufacturers have basic internet access and are familiar with using web or mobile app.

Assumption 2. Farmers will have valid email id’s to register and log into the Platform.

Assumption 3. Manufacturers will provide accurate up to date product details including prices, description and availability.

Assumption 4. The Application will support major browsers & mobile platforms.

Assumption 5. Farmers can place orders for products available in the catalog at the time of browsing.

Assumption 6. The payment gateway will handle all transactions securely & provide confirmation to the users.

**Question 9)** Project Requirements Priority.

**Answer)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Req Id.** | **Req Name** | **Req Description** | **Priority** |
| **BR001** | Farmer search for Products | Farmers should be able to search for available products in fertilizers, seeds and pesticides. | 8 |
| **BR002** | Manufacturers upload Products | Manufacturers should be able to upload and display their products in the application | 8 |
| **BR003** | Product Catalog | Farmers should be able to browse the product catalog without logging in. | 9 |
| **BR004** | Add to Wishlist | Farmers should be able to view product details including name, price, description & manufacturer information. | 5 |
| **BR005** | Add to Cart | – Farmers should be able to add products to the wishlist after logging in. | 9 |
| **BR006** | User Login | Users should be able to register by providing their email id and creating a secure password. | 10 |
| **BR007** | New User Registration | – A New user should be able to register by providing their email id and creating a secure password. | 10 |
| **BR008** | Role-Based Access | The system should provide a role based access for farmers and manufacturers with appropriate permissions | 7 |
| **BR009** | Payment Gateway | The Platform should include a secure and and user friendly payment gateway | 10 |
| **BR010** | Multiple Payment Options | Payment options should include COD, Credit/debit & UPI. | 9 |

**Question 11)** Use Case Specifications Document.

**Answer**:

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| --- | --- |
| **Use Case Id:** UC001 | **Use Case Name:** User Registration |
| **Created by**: Sirisha | **References**: Project Requirements Document |
| 1. **Use Case Description**
 | This use case describes the process of user registration for farmers and manufacturers. |
| 1. **Actors**
 | Farmers, Manufacturers |
| 1. **Pre-Conditions**
 | The User must have a valid email ID.  |
| 1. **Basic Flow**
 | * 1)The user navigates to the registration page.
* 2)The user enters their email, creates a password, and confirms the password.
* 3)The system validates the inputs.
* 4)The system creates a new account and confirms registration.
 |
| 1. **Alternative Flow**
 | * 1)If the email is already registered, the system notifies the user to log in instead.
* 2)If validation fails, the system prompts the user to correct the errors.
 |
| 1. **Exceptional Flow**
 | If the system encounters a technical issue, it displays an error message and asks the user to try again later. |
| 1. **Post-conditions**
 | * The user receives a confirmation email.
* The user can log in using their credentials.
 |
| 1. **Key Scenarios**
 | * A new user successfully registers.
* A user tries to register with an already registered email.
* A user enters an invalid email format or weak password.
 |
| 1. **Special Requirements**
 | * The password must meet security criteria (e.g., minimum 8 characters, at least one special character).
* The system should support CAPTCHA verification to prevent bot registrations.
 |

**Question 10)** Use Case Diagram.



Question 12) Activity Diagrams



