

Capstone project 1- Part 2

Q. 1. Audits

An audit is a check-up or review done on a project to make sure that the work is being done properly.

Everything is on track (budget, time, scope).

All documents and decisions are recorded correctly.

The audits (Q1, Q2, Q3, Q4) are conducted to ensure the project is progressing as per plan (scope, time, cost, quality).

Stage	Quarter 1 Audit report (Requirements Phase)
Completed	Months 1-3
Check list	Gather requirements from Mr. Henry, farmers, and other users.
	Create BRD
	Elicitation reports result
	Meeting with stakeholders
	Provide RTM (Requirements Traceability Matrix)

Stage	Quarter 2 Audit report (Design & Planning)
Completed	Months 4-6
Check list	Validate documents
	Confirm requirements are correctly translated into system design
	Update RTM using use cases
	Review UI/UX screens

Stage	Quarter 3 Audit report (Development & Testing)
Completed	Months 7-12
Check list	JAD session reports
	Support developers by clarifying requirements
	Participate in sprint reviews/demos
	Track changes and update documents

Stage	Quarter 4 Audit report (UAT Phase)
Completed	Months 13-18
Check list	Verify final RTM
	Collect feedback from farmers and SOONY
	Help farmers about how to use
	Make sure all requested features are delivered

Q 2. BA Approach Strategy

- **What Elicitation technique to apply.?**

Elicitation is the process of collecting requirements from stakeholders, we have many elicitation technique to apply some them are Brainstorming, document analysis , interview , observation, focus groups etc.,

For this agriculture product store project the best elicitation technique are interviews, observations, document analysis and workshops.

- **How to do stakeholder analysis RACI Matrix.?**

Stakeholder analysis is done by using the RACI matrix involves identifying stakeholders and their roles and responsibilities within the project.

- **What documents to write.?**

Documents you to need prepare or manage while doing the project they are BRD, SRS, Use case document, RTM, Test case document etc.,

- **What process to follow to Sign off on the documents.?**

Sign off to be taken on SRS as this is the primary and important document, sign off can be taken by using Email conformation from client.

- **How to take approvals from client.?**

Establish a formal meeting with the clients to keep them informed and get continuous feedback.

- **What communication channels to establish and implement.?**

Regular meetings, weekly ststus meetings, sprint reviews, and monthly stakeholders update.

- **How to handle change request.?**

Change request from, do impact analysis, approval process and documentation.

- **How to update the progress of the project to the Stakeholders.?**

Weekly status reports and monthly review meetings.

- **How to take signoff on the UAT- Client Project Acceptance Form.?**

UAT preparation, conduct UAT, fix issues , final review meeting and obtain sign off.

Q 3. 3-Tier Architecture

3-tier architecture is a software design pattern that organizes an application into three logical layers they are

Application Layer –

Display the user interface and it handles user interface components like screens and pages

EX: websites, e-commerce

Business logic Layer –

Process business logic and handles user request

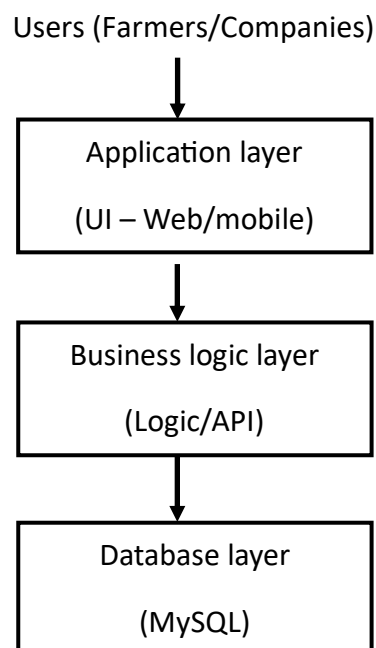
layer contains the core logic of the application

EX: printers, payment gateway

Database Layer –

responsible for storing and retrieving data

EX: oracle database, MySQL



Q 4. BA Approach Strategy for Framing Questions

Business Analyst (BA) asks a question to a stakeholder, it's important to think strategically and structure the question properly, so that the answer is useful, clear, and connected to the project.

- 5W1H – Ask the Right Type of Questions

Type	Purpose
Who	identify people/roles involved
What	clarify needs
Where	understand location/context
When	clarify timing
Why	get the reason behind the need
How	understand the process

- SMART

SMART stands for specific, measurable, achievable, relevant, time bound.
While asking the question ensure focus on getting the SMART answer.

Type	Purpose
Specific	what exactly is needed
Measurable	can we the check progress/track
Achievable	possible to do in time
Relevant	Is it useful or important
Time bound	A deadline

- **RACI**

RACI stands for responsible, accountable, consulted, informed.

While asking the question know role of stakeholder in the context.

Role	What it means
Responsible	what does the work (specific task)
Accountable	final decision (budget and approvals)
Consulted	gives input (suggestions)
Informed	needs updated (feedbacks)

- **3- Tier architecture**

While asking question keep in mind that which layer the question belongs to.

Tier	What to focus
Application layer	screens, pages, flow
Business logic layer	rules, actions
Database layer	what needs to be stored/retrieved

- Use case specs, activity diagrams, page designs

While asking question visualize the activity flow and actors involved, know the use cases

Tool	Purpose
Use case	user – system interaction
Use case specification	complete details of use case (flow, conditions)
Activity diagram	understand steps in process
Page designs	visualize how the screen/pages looks like

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

As a Business Analyst, it's important to use the right elicitation techniques to gather complete requirements from stakeholders.

Elicitation technique	Use
Brainstorming	Generate idea quickly in a group
Document analysis	Review existing document, reports
Reverse engineering	Processes of extracting knowledge or design information from anything
Focus group	Discuss needs with small group
Observation	Watch user performance to understand real need
Workshops	Discussion and decision making
JAD	Customer satisfaction and less errors
Interviews	face to face interaction to gather information

Prototyping	Use wireframes to get visual feedback
Questionnaires	Get input from many stakeholders quickly
Use case analysis	Checks how users will interact with the system

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

Prototyping

Creating sample screens of the app/web application to show how it looks like.

Why it use

Farmers like Peter, Kevin, and Ben may not understand technical terms, but they can give better feedback by seeing sample screens

Helps us design pages like product list, cart, and order form

Use case specification

step by step explanation of what a user does and how the system responds

Why it use

Helps developers and testers clearly understand what to build
actions like track delivery, place order, login

Document analysis

Reviewing existing files, reports, or manual order slips used by farmers

Why it use

Farmers may already have handwritten notes or purchase forms
Saves time and avoids missing key fields in the new system

Brainstorming

A group discussion to share ideas

Why it use

Useful in meetings with Mr. Henry, Peter, Kevin, and Ben to decide what features are most important and Encourages everyone to participate.

Q 7. 10 Business Requirements

Business requirements are the specific needs or conditions that a business must meet to achieve its objects.

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 - The application should have login function for all users

BR004 - New users should be able to create an account using email and password

BR005 - Logged-in Farmers should be able to browse the available product catalog

BR006 - Farmers should be able to add products to wishlist.

BR007 - Application should have payment gateway with options like COD, Credit/Debit Card, and UPI

BR008 - Users should receive email confirmations and text message after placing orders

BR009 - Farmers should be able to track the delivery status of their orders

BR010 – Return option should be available for farmers if incase they want to return if any issues like expiry.

Q 8. List your assumptions

Assumptions 1: Farmers and manufacturers will register and log in using an email ID and password and new users have option to create new account.

Assumption 2: The product catalog will include only fertilizers, seeds, and pesticides.

Assumption 3: the application include payment gateway supporting COD, credit/debit cards and UPI's

Assumption 4: Users will receive email confirmations and text message for successful order placement

Assumption 5: The application will provide tracking Id to farmers

Assumptions 6: Farmers in remote areas use mobile application than desktop.

Assumption 7: Farmers in some areas have basic access to internet connectivity.

Q 9. This project Requirements Priority.

Req id	Req name	Req description	Priority
BR001	Farmers search for products	Farmers should able to search for products in seeds, fertilizers, and pesticides.	8
BR002	Manufactures should upload their products	Manufacturers should be able to upload and display their products in the application	8
BR003	User login	The application should have login function for all users	6
BR004	New user create account	New users should be able to create an account using email and password	6
BR005	Browse catalog	Farmers should be able to browse the available product catalog	5
BR006	Payment gateway	Application should have payment gateway with options like COD, Credit/Debit Card, and UPI	6
BR007	Email conformation	Users should receive email confirmations and text message after placing orders	4
BR008	Delivery tracking id	User able track the delivery of the product	4

Q 10. Use case Diagram

UML (unified modeling language)

UML diagram is known as language of diagrams.

A use case diagrams are designed to explain how an external user are interacting with the system

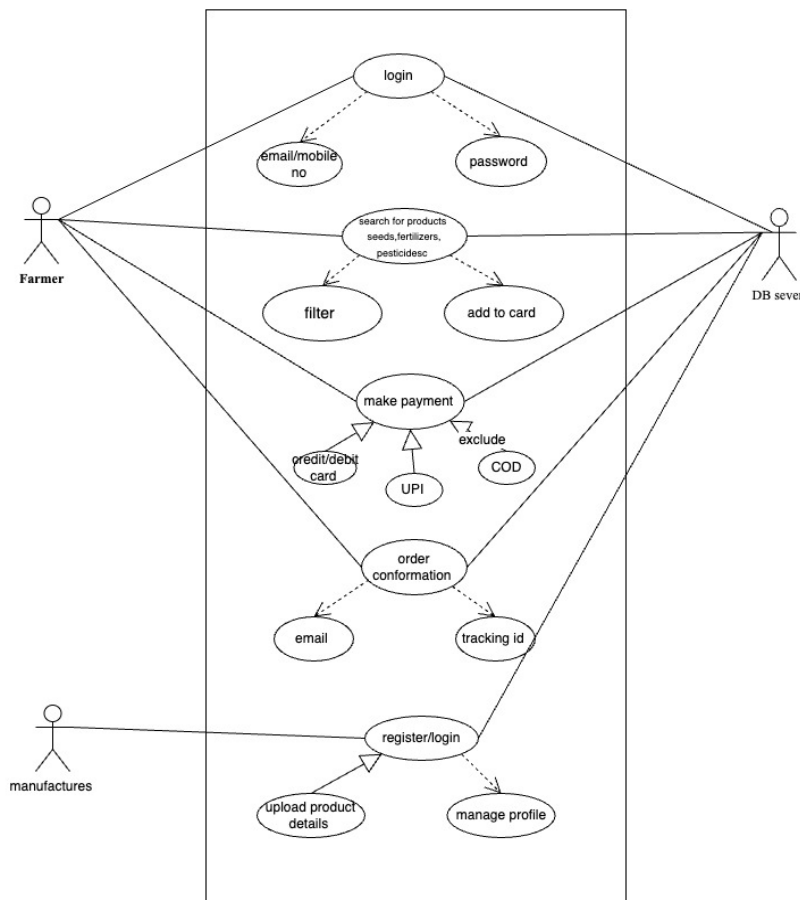
A Use case is a high level diagram

A use case diagram is an actor specific

UML has 9 diagrams those

5 - static use case, class, component, packages, deployment.

4 – dynamic sequence, activity, state chart, collaboration.



Q 11. Prepare use case specs for all use cases

A use case specification document which provides a detailed description of a use case, how users will interact with the system to achieve a specific goal.

Use case 1: login/register

Actor : Farmer/manufacturer

Description : allows users to register for new account or login to existing account

Precondition : `user must have a valid email id

Postcondition : user logged in and redirected to dashboard

Basic flow :

Enter mail id and password

For new users registration form is filled and submitted

System validates credentials

User is logged in

Alternative flow :

invalid password/mail id – error

email is already existing user

exceptional flow :

forgot password

forgot mail id

Use case 2 : search for products

Actor : Farmer

Description : farmer can search for products under seeds, fertilizers, pesticides

Precondition : user is logged in

Postcondition : matching products are displayed

Basic flow :

User navigates to product catalog

Enters search/filter keyword

System displays matching products to farmer

Alternative flow :

Product is out of stock

Use case 3 : Place order

Actor : Farmer

Description : farmer place an order for products in cart

Precondition : user logged in and select the products

Postcondition : order is placed , order id generated

Basic flow :

Farmer views card

Proceed to check out

Confirms delivery details

System proceed to payment page

Use case 4 : Make payment

Actor : Farmer

Description : farmer completes payment using COD/UPI/Card

Precondition : order placed

Postcondition : payment successful

Basic flow :

Farmer select payment method

Gives details if card/ UPI

Confaormtion shown

Alternative flow :

Payment failed

Use case 5 : Track order

Actor : Farmer

Description : Farmer can view the current status of the delivery

Precondition : order placed and confirmed

Postcondition : tracking status is shown

Basic flow :

User goes to my order

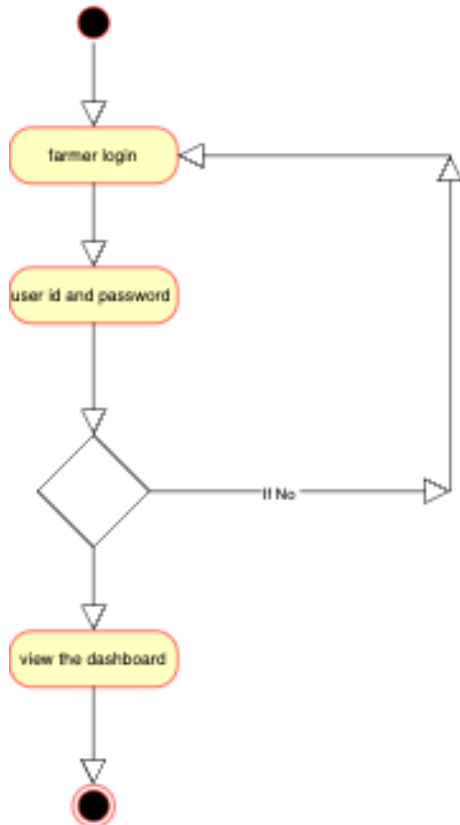
Clicks on track order

System shows the current status/location of the order

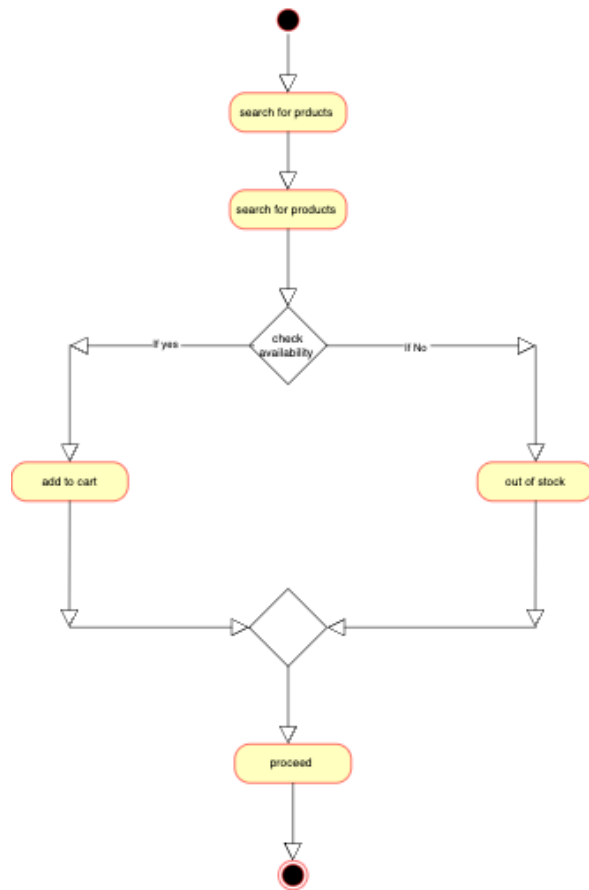
Q 12. Activity diagrams

An activity diagram is a type of diagram In the UML that visually represents the flow of activities within the system.

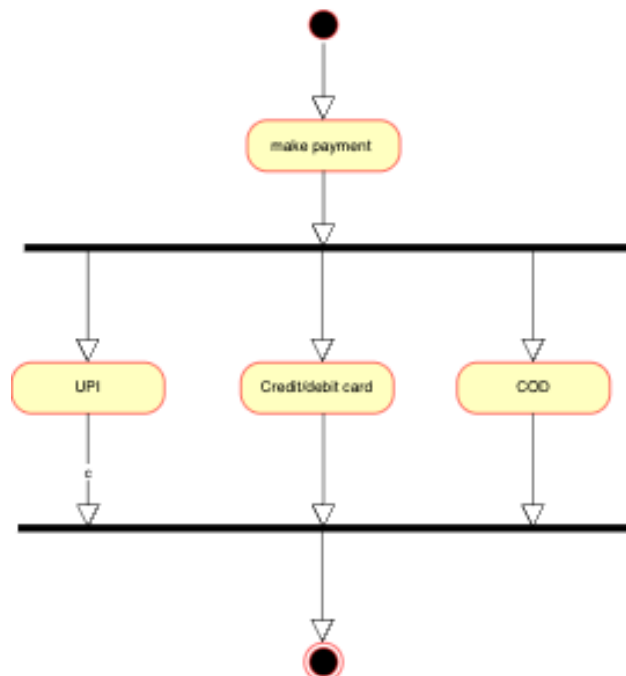
User registration activity diagram



Search for products activity diagram



Payment activity diagram



Delivery status activity diagram

