Question 1 : BUSINESS PROCESS MODEL

Goal: To create an online platform that enables remote area farmers to purchase agriculture products (seeds, pesticides, and fertilizers) from manufacturers, promoting efficient and convenient transactions.

Inputs:

1. Product details from manufacturers (fertilizers, seeds, pesticides)
2. Farmer registration and login information
3. Order requests from farmers
4. Payment information from farmers

Resources:

1. Online platform (web and mobile application)
2. Agriculture Products
3. Customer support team
4. Marketing Team
5. Development team

Output:

1. A user-friendly online platform for farmers to browse and purchase agriculture products
2. Delivery of products to farmers' locations
3. Payment processing and transaction records
4. Customer support and feedback mechanisms

Activities:

1. Product registration and upload by manufacturers
2. Register and login the application
3. Product browsing, Add to Cart and order placement

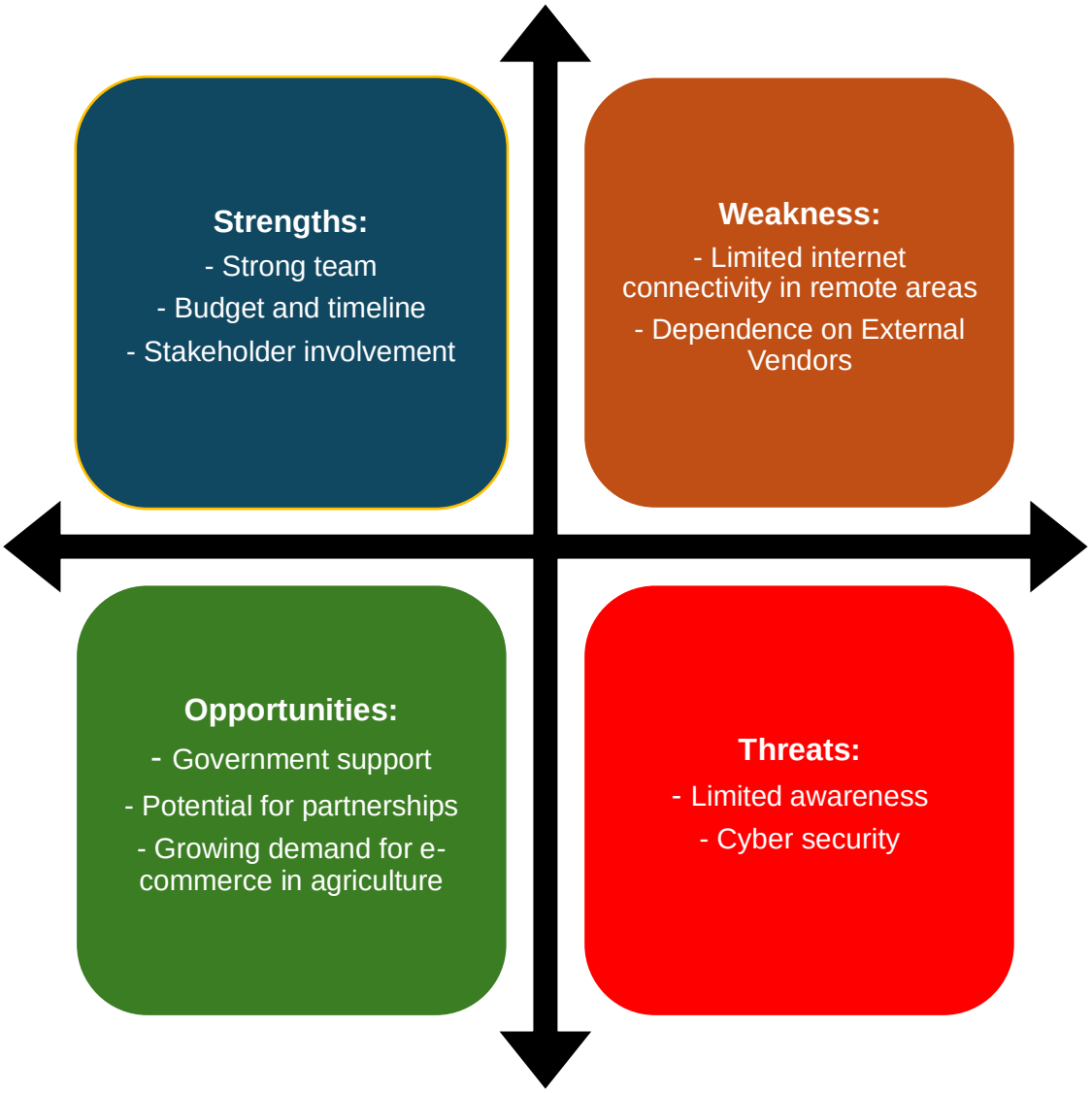
4. Payment processing and transaction records
5. Order fulfilment and delivery
6. Customer support and feedback

Values:

1. Convenience to buy a product.
2. The platform prioritizes customer satisfaction by providing a user-friendly interface, reliable delivery, and effective customer support.

Question 2 : SWOT Analysis

SWOT analysis is a framework for identifying and analysing an organization's strengths, weaknesses, opportunities and threats.



Question 3 : Feasibility Study

A feasibility study is a way to evaluate whether a project plan could be successful or not.

Technology:

- Based on Data base Server, Payment gateways, Security, API's.

Hardware:

- Servers, Network Infrastructure, Backup Systems.

Software:

- JAVA Programming Language

Resources:

- Project Manager, Senior Java Developer, Java Developers, Network Admin, DB Admin, Tester, Business Analyst, Stakeholders.

Budget:

- The total budget for the project is 2 Crores INR.

Time:

- The project is expected to be completed within 18 months.

Question 4 : Gap Analysis

AS-IS Existing process	TO-BE Future process
Farmers are facing difficulty in procuring the fertilizers, buying seeds and selecting safe pesticides.	Exhibit the high-quality Agriculture products like fertilizers, seeds and pesticides for all farming needs to be available for farmers
In remote villages farmers are facing difficulties in buying the agriculture products for farming certain crops and having concern on lack of pesticides which could help in reducing pest in crops.	A platform to be built for farmers in remote villages to buy agriculture products through internet connectivity from anywhere, develop a website/application which is user friendly.
Farmers in different areas face different challenges in availability of agriculture products like fertilizers, pesticides and seeds.	In this project, farmers from remote areas will be able to buy agriculture products online and using internet customers and business owners can communicate with each other, Share different type of information and resources.
Farmers face challenges in connection with details of agriculture products and product compatibility.	In this project, we build a user-friendly website/application to buy agriculture products online, this application will accept product details from manufacturers and provide the complete information about the product and display details to farmers.

A gap analysis is a systematic process that compares a business's current performance to its desired performance.

Question 5 : Risk Analysis

Risk analysis is the process of identifying and evaluating potential risks that could impact a business operations or projects.

Internal Risks:

- Technical issue and system Downtime that can affect the customer Experience.
- Inadequate Testing and Inadequate communication in the project team which leads to errors, bugs and delay in the project.
- High Operating Expenses due to Investments in the Technology and Marketing,

External Risks:

- The online store may face competition from existing online marketplaces and physical stores.
- The online store may be vulnerable to cyber-attacks and data breaches.
- Changes in regulations and laws may affect the online store's operations and compliance.

BA Risks:

- Inaccurate Requirements
- Change in Requirements

Project Management Risk:

- Scope Creep
- Stakeholder Management

Question 6 : RACI Matrix (Stake holder Analysis)

RACI is a matrix that is used to help identify all the roles and responsibility of each stakeholder on a project.

RACI	Name	Designation	Detail
Responsible	Mr. Teyson	JAVA Developer	Mail id x
	Mr. Tucker	JAVA Developer	Mail id x
	Ms. Lucie	JAVA Developer	Mail id x
	Mr. Jason	Tester	Mail id x
	Ms. Alekhya	Tester	Mail id x
Accountable	Mr. Vandhanam	Project Manager	Mail id x
	Mr. Prem kumar	Business Analyst	Mail id x
	Mr. Karthik	Delivery Head	Mail id x
Consulted	Mr. Mike	Network Admin	Mail id x
	Mr. John	Database Admin	Mail id x
	Ms. Juhi	Senior Java Developer	Mail id x
Informed	Mr. Henry	Sponsor	Mail id x
	Mr. Pandu	Financial Head	Mail id x
	Mr. Dooku	Project Coordinator	Mail id x

Question 7 : Business Case Document

Project Name : Online Agriculture products store

Subject **:** To make an online agriculture product store

Date : 01-01-2025

Project manager : Mr Vandanam

Executive Summary:

The purpose of this business case document is to present a proposal for an online agriculture product store that will facilitate remote area farmers to buy agriculture products such as fertilizers, seeds, and pesticides. The project aims to address the difficulties faced by farmers in procuring these essential products, and to provide a convenient and efficient way for them to buy these products.

Problem Statement

Remote area farmers face difficulties in procuring fertilizers, seeds, and pesticides due to lack of availability and connectivity in remote areas. This leads to inefficient and time-consuming process of buying these products through intermediaries, resulting in high costs

and limited access to information about available products and prices.

Solution

The proposed solution is an online agriculture product store that will enable farmers to buy these products directly from manufacturers, reducing intermediaries and costs. The application will be user-friendly and accessible to farmers with limited technical expertise.

Costs

The estimated costs for this project are 2 Crores INR for 18 months, which includes the development and implementation of the online store, as well as the costs of maintaining and updating the application.

Return on Investment (ROI)

The ROI for this project is expected to be 6-12 months, based on the expected increase in sales and revenue.

Stakeholders

The stakeholders for this project include:

- Farmers: Peter, Kevin, and Ben, who are helping the committee and can be considered as stakeholders.
- Manufacturers: Companies that produce fertilizers, seeds, and pesticides.
- APT IT SOLUTIONS company: The company responsible for developing and implementing the online agriculture product store.
- SOONY Company: Mr. Henry's company, which is sponsoring the project.

Conclusion

The proposed online agriculture product store has the potential to improve the livelihoods of remote area farmers by providing them with a convenient and efficient way to buy essential agriculture products. The project is expected to generate a positive ROI and provide a sustainable solution to the problems faced by farmers.

Question 8 : SDLC Methodologies

Methodologies 18 Months	Jan Feb Mar 2025	Apr May June 2025	July Aug Sept 2025	Oct Nov Dec 2025	Jan Feb March 2025	Apr May Jun 2025
Sequential						
Iterative						
Evolutionary						
Agile						

SDLC – Software Development life Cycle

SDLC is understood best by methodologies and models, SDLC means how an IT company will develop the software application. SDLC is having four types of methods.

- **Sequential** - This is the most common and classic of life cycle models, also referred to as a linear-sequential life cycle model. It is very simple to understand and use. In a waterfall model, each phase must be completed in its entirety before the next phase can begin. At the

end of each phase, a review takes place to determine if the project is on the right path and whether to continue or discard the project.

- **Iterative** - The iterative methodology is a software development approach that breaks down projects into smaller, manageable chunks called iterations. The Rational Unified process (RUP) model come under this Iterative Methodology. In Iterative first year of project is not shared anything to client, from second year onwards we start delivering the project piece by piece.
- **Evolutionary** -The Spiral model comes under the Evolutionary Methodology. It is a risk Driven process model generator for software projects. The Spiral Model Consist of four phases : Planning, Risk Analysis, Engineering and Evaluation. The Software Project Repeatedly passes through these phases is called Spiral Model.
- **Agile** – In SDLC Methodology the Agile model is a hybrid of iterative and incremental process model, with a focus on process adaptability and customer satisfaction through rapid delivery of functional software. In Agile the output of project is shared from initial stage onwards.

Question 9 : Waterfall, RUP Model, Spiral, Scrum Model

Waterfall Model:

Waterfall model is a traditional model and follows a structured approach with each phase having specific deliverables. In waterfall model review is taken place at the end of each phase to determine if the project is running fine. Waterfall model works well for small projects where requirements are well understood to client. Waterfall model follows a sequential methodology, and it is first model proposed.

RUP Model:

RUP stands for rational unified process it works for phase wise or module wise. RUP model is used in long term projects where project duration is having more than two years or three years. It helps to identify defects at early stage itself and change request is accepted at any phase of development. RUP model has multiple stages which requires more budget and more resources.

Spiral Model:

Spiral model is also named as risk driven model for software projects It has four phases –PLANNING, RISK ANALYSIS, ENGINEERING AND EVALUATION. In Planning phase interacting with the client and gather requirements once the requirement is gathered risk is identified in particular requirement. If there is any risk in particular requirement then prototype is created, BA will be doing the concept of operation how it can be implemented. In spiral model at each and every stage the process we do the risk analysis is applied.

Scrum Model:

In Agile scrum model documentation is never created. The only thing in agile scrum used is user stories.

Agile model follows four main values

- Individual and Interactions over process and tool: All the teams must be coordinating with each and every one regrading process and tool.
- Working software over comprehensive document: The software we provide to client will be documented at the end of project
- Customer collaboration over contract negotiation: Customer interaction with entire project in terms of budget, timeframe, process
- Responding to change over following a plan: In Agile scrum change request is accepted in entire developing of project.

Justification for Methodology to be used in Project :

*****As a BA I agree to follow Waterfall methodology. In waterfall model there is a concept known as requirement freezing which means once client gives requirement then the requirements are freeze from that point of time client cannot give any change request in project.

*****As a BA I agree to follow Waterfall methodology, in this Online agriculture product store the application developed should be user friendly which means the application should support to run in any device like Mobile, Laptop, Desktop, Tab.

*****As a BA I agree to follow Waterfall methodology. Waterfall model is simple to understand and easy to use where requirements are easily understood.

Question 10: Waterfall model VS V Model

Waterfall Model	V Model
Low Cost	Expensive
Testing Activity starts at later stage	Testing Activity start at first stage
Moves in Linear way	Doesn't Move in Linear way
Less Customer Involvement	More Customer Involvement

Question 11 : Justify your answer

*****As a BA I agree to follow Waterfall methodology. In waterfall model there is a concept known as requirement freezing which means once

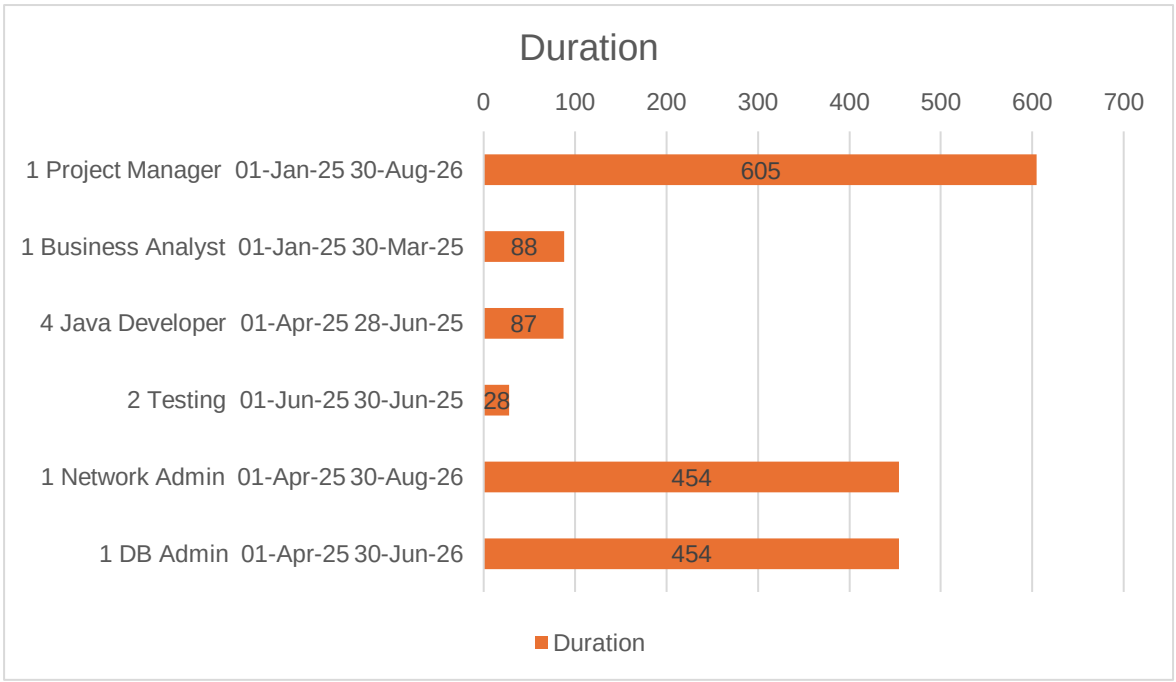
client gives requirement then the requirements are freeze from that point of time client cannot give any change request in project.

*****As a BA I agree to follow Waterfall methodology, in this Online agriculture product store the application developed should be user friendly which means the application should support to run in any device like Mobile, Laptop, Desktop, Tab.

*****As a BA I agree to follow Waterfall methodology. Waterfall model is simple to understand and easy to use where requirements are easily understood.

Question 12: Gantt Chart

No. of Employ-ees	Resource	Start date	End Date	Duration
1	Project Manager	01-Jan-25	30-Aug-26	605
1	Business Analyst	01-Jan-25	30-Mar-25	88
4	Java Developer	01-Apr-25	28-Jun-25	87
2	Testing	01-Jun-25	30-Jun-25	28
1	Network Admin	01-Apr-25	30-Aug-26	454
1	DB Admin	01-Apr-25	30-Jun-26	454



Question 13 : Fixed Bid vs Billing Model

Fixed Bid Model:

In fixed bid project for the given time and budget everything is fixed, within the given period of time and given budget we have to submit the project to client.

Example- Lets take an example of building Hospital management system with specified features of having 1 year time period and 10 lakhs is the

budget, in fixed bid model within 1 year period of time and having 10 lakhs of budget the project should be completed and submitted to client.

Billing Model:

In Billing project, the time and budget are not fixed, employees working in organisation or the employees work for project will be get paid on weekly basis or hourly basis.

Example- In Billing model the project is build based on resources per hour basis like

Resource	Billing amount
Project manager	90$ per hour
Business Analyst	80$ per hour
Developer	70$ per hour
Tester	50$ per hour

Question 14: Timesheets of BA in various stages

DESIGN timesheet of a BA

Date	Task	Time Started	Task Progress	Time Stopped		Time Started	Time Stopped	Total Hours
13/06/2025	User Interface Designing	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM -5:00 PM	7:00

14/06/2025	Database	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM-5:00 PM	7:00

DEVELOPMENT timesheet of a BA

Date	Task	Time Started	Task Process	Time Stopped		Time Started	Time Stopped	
16/06/2025	Follow Design	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM-5:00 PM	

17/06/2025	Coding the Requirements	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM-5:00 PM	
18/06/2025	Code Review	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM-5:00 PM	
19/06/2025	Unit Testing	8:00AM-9:00AM	9:30AM-10:30AM	10:30AM-11:00 AM		1:00PM-4:00PM	4:30PM-5:00 PM	

TESTING timesheet of a BA

Date	Task	Task Started	Task Proces	Task Stopped		Task Started	Task Stopped	Total

21/06/2025	Functionality validation	8:00 AM-9:00 AM	9:30 AM-10:30 AM	10:30 AM-11:00 AM		1:00 PM-4:00 PM	4:30PM -5:00 PM	7:00
22/06/2025	Manual Testing- unit testing, integration testing, system testing	8:00 AM-9:00 AM	9:30 AM-10:30 AM	10:30 AM-11:00 AM		1:00PM-4:00PM	4:30PM -5:00 PM	7:00
23/06/2025	Automation Testing	8:00 AM-9:00 AM	9:30 AM-10:30 AM	10:30 AM-11:00 AM		1:00PM-4:00PM	4:30PM -5:00 PM	7:00
24/06/2025	Test cases	8:00 AM-9:00 AM	9:30 AM-10:30 AM	10:30 AM-11:00 AM		1:00PM-4:00PM	4:30PM -5:00 PM	7:00

Date	Task	Time Started	Task Proces	Time Stopped		Time Started	Time Stopped	

26/06/2025	Software is deployed on production environment for UAT and approval	8:00 AM- 9:00 AM	9:30 AM- 10:30 AM	10:30 AM- 11:00 AM		1:00PM- 4:00PM	4:30PM -5:00 PM	7:

UAT timesheet of BA

Deployment and Implementation timesheet of a BA

Date	Task	Time Started	Task Proces	Time Stopped		Time Started	Time Stopped	Total
27/06/2025	Installation and activation of Hardware and software	8:00 AM- 9:00 AM	9:30 AM- 10:30 AM	10:30 AM- 11:00 AM		1:00PM- 4:00PM	4:30PM -5:00 PM	7:00
28/06/2025	Users are trained to develop	8:00 AM- 9:00	9:30 AM- 10:30	10:30 AM- 11:00		1:00PM- 4:00PM	4:30PM -5:00 PM	7:00

	software system	AM	AM	AM				
29/06/2025	Conversion from old system to new one	8:00 AM- 9:00 AM	9:30 AM- 10:30 AM	10:30 AM- 11:00 AM		1:00PM- 4:00PM	4:30PM -5:00 PM	7:00