Nurturing Process - Capstone Project1

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Question 1. Identify Business Process Model for Online Agriculture Store – (Goal, Inputs, Resources, Outputs, Activities, Value created to the end Customer)

Answer-

- **Goal-**
  1. To provide user-friendly web/mobile applications (Online Agriculture Product Store) for farmers and companies.
  2. To help farmers easily purchase agricultural products like seeds, fertilizers, and pesticides from remote locations and gain profit out of it.
  3. To create a direct communication link between farmers and companies that produce these agricultural products eliminating the middlemen.
  4. To provide the facility of getting agricultural products delivered to farmer's doorstep.
- **Input-**
  1. Detailed information about fertilizers, seeds, and pesticides from the manufacturer companies and contacts.
  2. Application farmer's contact details.
  3. Understanding the needs of the farmers, including the types of crops, seeds, fertilizers, and pesticides they require.
  4. Delivery vendor's details.
  5. Web and mobile application development resources, including software and hardware to run the online platform.
- **Resources-**
  1. Application development team (e.g., APT IT SOLUTIONS team) who create and manage the platform.
  2. Financial Resources
  3. Agriculture Products
  4. Manufacturing companies
  5. Delivery Team
  6. Internet Connectivity
  7. The device through which the system will be accessible-Computer/laptop & Mobile Phone.
- **Output-**
  1. The Mobile/Web application which will give all the details like, which product of seeds, pesticides, and fertilizers.
  2. Price, uses, direction to use, payment and shipping details, etc. platform for manufacturing companies to list their agricultural products so farmers can get farming-related products online and easily at their door.
- **Activities-**
  1. To build a Mobile /Web application that will have all necessary functions.
  2. Signup and login facility for farmers and manufacturers.
  3. Accept the product details from manufacturing companies.
  4. Product list and display it to the farmers.

5. Farmers will search and select the product.
6. Farmers will buy the product using their convenient payment gateway (COD, Credit/Debit Card, or UPI).
7. The farmer will get notified via email and the order details once they confirm.
8. Farmer can track their order using delivery trackers.
9. Farmers can give product Feedback.

- **Value created to the end customers-**
  1. This is a user-friendly and easy-to-use application for Farmers. They will get agriculture products online within a short time, directly from companies.
  2. Easy online ordering and can be accessible from anywhere, anytime.
  3. The online store is available on both Web and Mobile devices.
  4. Increase in agriculture production, time and money saving for farmers, and farmers' satisfaction.
  5. Trustworthy Shipping and Delivery Services.

Question 2. Mr Karthik is doing SWOT analysis before he accepts this project. What Aspects he should consider as Strengths, as Weaknesses, as Opportunity and as Threats.

Answer-

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. As the delivery Head, Mr Karthik should consider the following aspects when performing a SWOT analysis for the online agriculture product store project:

Strengths-

1. Online shopping is increasingly popular, even in rural areas. This project aims to capitalize on the growing demand for essential agricultural products.
2. Mr. Henry is already a successful Businessman and his company SOONY is an established firm. Hence his connections can be used for marketing and outreach.
3. The project has a budget of 2 crores rupees allocated for an 18-month project. Providing strong financial resources to support development, marketing, and operational expenses.
4. The Project is a CSR initiative which means the company is not only targeting profit but has also taken an active and positive social role in the world around them.
5. Peter, Kelvin, and Ben are key stakeholders who can provide valuable input and resources for the project.

Weaknesses-

1. In some rural areas, internet connectivity may be slow or unstable, which could limit the effectiveness of the online platform and reduce its reach to certain farmers.
2. Delivering products to remote locations can be difficult due to logistical challenges, transportation costs, and the potential for delays, which could lead to customer dissatisfaction.
3. Limited duration of the project which is only 18 months for building both web and mobile applications.
4. Many farmers might not be familiar with using mobile apps or online platforms, which can be a barrier to the adoption and use of the online store.
5. The team is handling this kind of project for the first time so there is no previous expertise in this domain.
6. Lack of resources to handle the project at Mr. Henry’s company.

Opportunity-

1. As internet access continues to expand, more farmers in rural areas will have access to online platforms. This trend will help reach a wider customer base.
2. This is the first of its kind. It has not been developed before by any company.
3. The product provides the solution to the farmer's problem and can potentially capture a large user base.
4. Agricultural product companies will have access to a new market and there is an opportunity to expand the online store into other regions, states, or even countries, creating a larger market for agricultural products.
5. Mr. Karthik can explore partnerships with agricultural organizations or cooperatives to promote the online platform and reach more farmers.
6. The government is focusing on digitalizing agriculture and supporting farmer-centric digital platforms. This project could benefit from any government schemes or support in the future.

Threats-

1. Established e-commerce giants like Amazon, Flipkart, or niche agricultural platforms might enter the market and compete with the new online agriculture store, potentially stealing market share.
2. Are farmers educated about online stores or are they comfortable in ordering the products online?
3. Is the internet connectivity proper in rural areas?
4. The project may face competition from other online agriculture product stores if got developed by the time of release of the project.
5. The quality of the products being delivered cannot be assured which can affect user trust.
6. Unpredictable weather conditions or natural disasters (like floods or droughts) could affect agricultural production and subsequently reduce the demand for certain farming products.

Question 3. Mr Karthik is trying to do a feasibility study on doing this project in Technology (Java), please help him with points (HW SW Trained Resources Budget Time frame) to consider in the feasibility Study.

Answer-

Mr. Karthik to perform a feasibility study regarding the technology aspect of the Online Agriculture Store project (using Java), needs to evaluate several critical factors related to hardware (HW), software (SW), trained resources, budget, and time frame. Below are the key points that Mr. Karthik should consider under each of these factors in the feasibility study:

- **Hardware-**
    - **i. Server requirement-**
        - The project will require reliable, scalable web servers to handle the application load, especially during peak usage.
        - Consider cloud services such as AWS, Google Cloud, or Microsoft Azure, which provide flexible infrastructure for scaling.

ii. **Development Tools-**
    - **Java Development Kit (JDK)**, Integrated Development Environments (IDEs) like **IntelliJ IDEA** or **Eclipse** etc.

iii. **Testing Hardware-**
    - Physical or virtual devices (desktops, laptops, mobile devices) for testing the **web and mobile applications** to ensure they work across different platforms (Android, iOS, etc.).

iv. Required Network Equipment-
    - For example Routers etc.

v. Storage

- **Software-**
    i. Development Software Technology-
        - **Frontend Technology-** JavaScript frameworks (like React, and Angular) would be needed for frontend development.
        - **Backend Frameworks-** Mr. Karthik should consider Java-based frameworks like Spring Boot or Java EE for developing the backend of the online store.

    ii. Database Management-
        - A relational database like MySQL or PostgreSQL would be needed to manage structured data such as product listings, customer data, and transaction details.

    iii. Integrated Development Environment (IDE)-
        - Java developers will need a powerful IDE like IntelliJ IDEA, Eclipse, or NetBeans to develop the application efficiently.

    iv. Cloud Infrastructure-
        - A cloud platform (like AWS, Google Cloud, or Microsoft Azure) could be used for hosting both the front end and back end of the platform, and also provide services for databases and backups.

    v. Testing Tools

- **Trained Resources-**
    i. Mr. Karthik as Delivery Head.
    ii. Mr. Vandanam as the Project Manager.
    iii. Ms. Juhi as Senior Java Developer.
    iv. Mr. Teyson, Ms. Lucie, Mr. Tucker, and Mr. Bravo as Java Developers.
    v. Mr. Mike as Network Admin.
    vi. Mr. John as DB Admin.
    vii. Mr. Jason and Ms Alekya as Testers.
    viii. I (Bhagyashri Inkane) as BA.
- **Budget-**2crore
- **Time Frame-**18 Months

Question 4. Mr Karthik must submit Gap Analysis to Mr Henry to convince to initiate this project. What points (compare AS-IS existing process with TO-BE future Process) to showcase in the GAP Analysis?

Answer-

- **AS-IS (Existing Process)-**
    1. Farmers must physically visit local markets or agricultural stores to purchase agricultural products such as seeds, fertilizers, and pesticides it's time-consuming.
    2. Local stores may have a limited stock of agricultural products, so farmers might not always receive the products they need promptly and may have to await restocking, causing delays.
    3. Farmers often lack up-to-date information about the latest agricultural products, as they must rely on intermediaries who offer limited options. This can result in higher prices and low-quality products.
    4. Farmers often struggle to find the right products that meet their specific crop requirements.
    5. The communication gap between farmers and manufacturers prevents farmers from accessing the latest and most effective products.
- **TO-BE (Future Process)-**
    1. Farmers can use the online platform from their mobile phones or computers to purchase agricultural products such as seeds, fertilizers, and pesticides anytime and anywhere, saving them time and effort.
    2. The online store will offer a wider variety of products, including different brands of seeds, fertilizers, and pesticides. Items will be easy to access, and out-of-stock products can be backordered, which will reduce waiting times.
    3. The platform connects farmers directly with manufacturers, eliminating middlemen and reducing costs. Farmers can communicate directly with suppliers to understand product quality and specifications.
    4. The online store will provide farmers with comprehensive information about each product, including usage instructions, pricing, and benefits. The platform will offer product recommendations tailored to the types of crops the farmers are growing, enhancing their decision-making.
    5. By buying directly from reliable suppliers through the online platform, farmers can access high-quality products.
    6. The online store should be user-friendly and accessible to farmers who may not have technical knowledge.
    7. The online platform will offer various secure payment methods, including digital wallets, credit and debit card payments, as well as cash on delivery (COD) options. This will enhance the security and transparency of the payment process.
    8. The online store should have a robust customer support system to address any issues or queries raised by farmers.

Question 5. List down different risk factors that may be involved (BA Risks And process/Project Risks).

Answer-As a BA, Risk should be identified and managed to ensure the success of the project. Below is a list of various risk factors that could impact the project, categorized into BA Risks and Process/Project Risks**.**

- **BA Risk-**
    - **I.** Insufficient information during requirement gathering leads to misunderstandings or incomplete requirements from stakeholders, including farmers, manufacturers, and project sponsors.
    - **II.** Lack of understanding of the agriculture industry and the specific needs of farmers in remote areas.
    - **III.** Different stakeholders (farmers, companies, project teams, etc.) may have conflicting requirements or opinions, leading to difficulties in getting consensus on the requirements.
    - **IV.** Unclear project objectives and scope.
    - **V.** Insufficient resources or unavailability of the resources and budget allocated for the project.
- **Process/Project Risk-**
    - **I.** The project budget of 2 crore rupees may be insufficient if unexpected costs arise, such as additional hardware or software requirements, or the recruitment of extra resources.
    - **II.** Limited internet connectivity in remote areas makes it difficult to access online stores.
    - **III.** Poor communication or misalignment between different departments (e.g., business analysts, developers, and QA testers) could slow down progress.
    - **IV.** The risk of misunderstanding requirements**,** delayed feedback**,** and lack of timely coordination between teams can affect project success.
    - **V.** Delivery of materials may be delayed due to unforeseen circumstances, such as natural disasters or logistics issues.
    - **VI.** Security risks associated with online transactions and personal information of the users.
    - **VII.** The platform will rely heavily on technology (Java, databases, cloud hosting). If there are technical glitches, such as server downtime, database issues, or integration problems, it could delay development or lead to performance issues.
    - **VIII.** Farmers may not fully adopt or trust the platform, particularly those who are not comfortable with technology.

Question 6. Perform stakeholder analysis (RACI Matrix) to find out the key stakeholders who can take decisions and who are the influencers.

Answer-

RACI stands for Responsible, Accountable, Consulted, and Informed. In this project, below are the stakeholders for which RACI chart is prepared.

I. Mr Henry- Project sponsor
II. Mr Pandu- Financial head
III. Mr Dooku- Project Coordinator
IV. Peter, Kevin, Ben- Key Stakeholders
V. Mr Karthik- Delivery Head
VI. Mr Vandanam- Project Manager
VII. Ms Juhi- Senior Java Developer
VIII. Mr. Teyson, Ms. Lucie, Mr. Tucker, and Mr. Bravo- Java Developers
IX. Mr. Mike- Network Admin
X. Mr John- DB Admin
XI. Mr. Jason and Ms. Alekya-Tester
XII. Bhagyashri Inkane- BA

R-Responsible, A-Accountable, C-Consulted, I-Informed

Tasks	Mr Henry (Project Sponsor)	Peter, Kevin, Ben (Key Stake-holders)	Mr Karthik (Delivery Head)	Mr Vandanam (Project Manager)	Ms Juhi (Senior Java Developer)	Teyson, Lucie, Tucker, Bravo (Java Developers)	Mr Jason &Ms Alekya (Tester)	Bhagyashri Inkane (BA)
Requirement Gathering		C		A/I				R
Requirement Analysis				I				R
Development				R/A	A/C	R		
Testing				I	I		R	I
Implementation			R	I				R
UAT	I			R/A				I

Apart from the above tasks, Mr. Mike is responsible for setting up the network infrastructure required for the project and Mr. John is responsible for managing the project's database.

Mr. Pandu, the Financial Head, is responsible for managing the project budget, while Mr. Dooku provides guidance and support to the project team. Peter, Kevin, and Ben are consulted for their requirements and feedback.

Question 7 Help Mr Karthik to prepare a business case document.

Answer-

- **Executive Summary-**

The purpose of this business case is to propose the development of an Online Agriculture Products Store to facilitate remote area farmers to buy agricultural products.

The proposed solution is a web/mobile application that allows farmers and companies manufacturing fertilizers, seeds, and pesticides to communicate directly with each other. The goal is to provide a platform for farmers to purchase necessary products without facing any difficulties in procuring fertilizers, seeds, and pesticides. The project is expected to be completed within 18 months and is being undertaken as part of the corporate Social Responsibility initiative.

- **Problem Statement-**

Farmers in remote areas face difficulties in procuring fertilizers, seeds, and pesticides, which are essential for farming. These products are not readily available in the market and farmers often have to travel long distances to procure them. This leads to a waste of time and money, which could have been utilized in farming activities. Therefore, there is a need for a platform that can facilitate the purchase of these products for farmers.

- **Solution-**

The proposed solution is an Online Agriculture Products Store, a web/mobile application that enables farmers and companies manufacturing fertilizers, seeds, and pesticides to communicate directly with each other.

The application will have the following features:

  - Farmers can browse through the products and select the ones they need.
  - Companies can submit their product details, which will be displayed on the application.
  - Farmers can place an order for the products and request delivery to their location.
  - The application will have a user-friendly interface for easy navigation.

- **Benefits-**

The Online Agriculture Products Store will provide the following benefits:

  - Farmers will be able to purchase necessary products without facing difficulties in procuring them.
  - Companies manufacturing fertilizers, seeds, and pesticides will have a platform to reach out to farmers directly.
  - The application will save time and money for farmers, which can be utilized in farming activities.
  - The application will promote the use of quality products, which will lead to better yields.
  - The project will be undertaken as part of the Corporate Social Responsibility initiative, which will help in fulfilling the company's social obligations.

- **Costs-**

The estimated budget for the project is 2 crores INR. This includes the cost of development, testing, deployment, and maintenance. The project is expected to be completed within 18 months.

- **Key Stakeholders-**

  - Mr. Henry, who proposed the project and is a key stakeholder.
  - Peter, Kevin, and Ben, who shared their requirements for the project and are stakeholders.
  - Mr. Pandu, who is the Financial Head and a key stakeholder.

- Mr. Dooku, who is the Project Coordinator and a key stakeholder.
- Mr. Karthik, who is the Delivery Head in APT IT SOLUTIONS company and a key stakeholder.
- Mr. Vandanam, who is the Project Manager and a key stakeholder.
- Ms. Juhi, Mr. Teyson, Ms. Lucie, Mr. Tucker, and Mr. Bravo, who are Java developers and stakeholders.
- Mr. Mike, who is the Network Admin and a stakeholder
- Mr. John, who is the DB Admin and a stakeholder.
- Mr. Jason and Ms. Alekya, are Testers and stakeholders.
- The farmers and companies manufacturing fertilizers, seeds, and pesticides who will use the application.

- **Risks-**
  - The application may face technical issues during development and deployment.
  - There may be delays in development due to unforeseen circumstances.
  - The application may not be user-friendly, leading to low adoption by farmers.
  - There may be issues with product quality and delivery, leading to dissatisfaction among farmers.
  - Competitors may develop similar applications, leading to a loss of market share.

- **Conclusion-**

  The Online Agriculture Products Store.

Question 8. The Committee of Mr. Henry, Mr Pandu, and Mr. Dooku and Mr Karthik are having a discussion on the Project Development Approach. Mr Karthik explained to Mr. Henry about SDLC. And four methodologies like Sequential, Iterative, Evolutionary, and Agile. Please share your thoughts and clarity on Methodologies**.**

Answer-

SDLC is a structured approach to developing software products. It consists of various stages like planning, analysis, design, development, testing, deployment and maintenance. Each methodology has its strengths and weaknesses. The choice of methodology depends on project requirements.

- **Sequential Methodology-**

  The sequential methodology, often referred to as the Waterfall model, is a linear approach to software development in which each phase must be completed before moving on to the next. This method is particularly effective for projects with well-defined requirements and a clear vision of the final product. However, it may not be suitable for projects with evolving requirements or situations where changes need to be made during the development process.
- **Iterative Methodology-**

  The iterative methodology consists of multiple cycles of the Software Development Life Cycle (SDLC). In this approach, the development team creates a

working prototype of the software product, tests it, and then makes adjustments based on the feedback received before proceeding to the next iteration. This methodology is particularly beneficial for projects where the requirements are either not clearly defined or are likely to change during the development process.

- **Evolutionary Methodology-**

  The evolutionary methodology is similar to the iterative methodology in that it involves multiple iterations. However, in this approach, the initial product is not fully functional; instead, it evolves through a series of iterations. This methodology is particularly well-suited for projects where the requirements are not fully defined or may change frequently.

- **Agile Methodology-**

  The Agile methodology is an iterative and incremental approach to software development that focuses on delivering working software in small increments or sprints. The Agile approach emphasizes customer collaboration, continuous feedback, and flexibility in response to changing requirements. This methodology is ideal for projects where requirements may change frequently and where there is a need for rapid delivery of working software.

Each methodology has its advantages and disadvantages, and the choice of methodology will depend on the specific needs of the project. It is essential to consider factors such as project requirements, project scope, team size, budget, and timeline before choosing the methodology.

Question 9. They discussed models in SDLC like waterfall RUP Spiral and Scrum. You put forth your understanding of these models. When the APT IT SOLUTIONS company got the project to make this online agriculture product store, there is a difference of opinion between a couple of SMEs and the project team regarding which methodology would be more suitable for this project. SMEs are stressing on using the V model and the project team is leaning more onto the side of the waterfall model. As a business analyst, which methodology do you think would be better for this project?

Answer-

- **Waterfall Model-**

The waterfall model is one of the oldest and most traditional methodologies for software development. It follows a linear, sequential approach where each phase must be completed before moving to the next.

Phases in Waterfall Model-

- **Requirement gathering**: All requirements are gathered at the beginning.
- **Design**: System design is created.
- **Implementation**: Development starts.
- **Testing**: After development, the product is tested.
- **Deployment**: The system is deployed and maintained.

The Waterfall model is often compared to a waterfall because of its sequential nature each phase flows down into the next one, and there is little to no overlap.

- **RUP Model-**

The rational unified process (RUP) is an iterative software development process framework created by the Rational Software Corporation, a division of IBM since 2003. RUP is iterative, meaning repeating; and agile. Iterative because all of the process's core activities repeat throughout the project. It's a process of gradual improvement and learning from previous iterations, as to how to improve the next. In RUP, the life cycle of a project, or the development of software, is divided into four phases.

Various activities take place during these phases: modeling, analysis and design, implementation, testing, and application.

RUP is an iterative and incremental development model that focuses on four **key phases-**

- **Inception**: Establish project scope and requirements.
- **Elaboration**: Design and architecture work.
- **Construction**: Development and testing.
- **Transition**: Deployment and ongoing support.

- **Spiral Model-**

The spiral model is a software development life cycle (SDLC) methodology that integrates iterative development with the Waterfall model. It is primarily used for risk management and is especially suited for large and complex projects. This model allows for gradual releases and the refinement of a product at each phase of the spiral, as well as the construction of prototypes during every stage. One of its key features is the ability to manage unforeseen risks once the project has commenced. In the spiral model, the radius represents the project's cost, while the angular degree indicates the progress made in the current phase.

Every phase can be broken into four quadrants:

I. Identifying and understanding requirements
II. Performing risk analysis
III. Building the prototype: The prototype is built and tested. This step includes architectural design, the design of modules, physical product design, and the final design.
IV. Evaluation of the software's performance

- **Scrum Model-**

Scrum is an agile development methodology used for software development based on an iterative and incremental process.

Scrum Methodology and Process: Scrum is carried out in time-limited phases called Sprints, which typically last between 2 to 4 weeks. Each Sprint is a self-contained unit that delivers a complete output, representing a variation of the final product that should be ready for client delivery with minimal effort when requested.

The process begins with a list of objectives and requirements that form the project plan. The project client prioritizes these objectives by considering a balance between their value and associated costs, which in turn determines the iterations and subsequent deliveries.

As a Business Analyst, I would recommend using the Waterfall methodology because it is a straightforward and easy-to-understand model. Given the available information and the stable nature of the requirements for this project, I favour the Waterfall approach. However, it is essential to make the final decision based on a thorough understanding of the project requirements, available resources, and the preferences and expertise of the project team and subject matter experts (SMEs) involved.

Question 10. Write down the differences between waterfall model and V model.

Answer- Both the Waterfall Model and the V-model are software development life cycle models that are linear and follow a structured approach. However, there are significant differences between these two models in terms of their structure, testing phases, and flexibility. The testing activities are carried out after the development activities are over. On the other hand, in the V model, testing activities start with the first stage itself. In other words, the waterfall model is a continuous process, while the V model is a simultaneous process. As compared to software made using the waterfall model, the number of defects in the software made using V model is less. This is due to the fact, that there are testing activities, which are carried out simultaneously in V model. Therefore, the waterfall model is used, when the requirements of the user are fixed. If the requirements of the user are uncertain and keep changing, then V model is the better alternative. Also making changes in the software in waterfall model is a difficult task, and also proves to be a costly affair. The vice versa is true of the V model. Also, any defects, in the software cannot be determined, till the software reaches the testing phase. However, defects are noticed in the initial phases, due to which they can be corrected easily.

Here's a detailed comparison between the Waterfall Model and the V Model:

No.	Waterfall Model	V Model
1	The waterfall model is a relatively linear sequential design approach to developing software projects.	The V model is a model in which the execution of the phases happens in a sequential manner in a V-shape.
2	The waterfall model is a continuous process.	The V model is a simultaneous process.
3	Testing activities are accomplished after the development activities are over.	Testing activities start with the first stage itself.
4	It is used when requirements are fixed.	If the requirements of the user are uncertain and keep changing, then the V model is a better alternative.

5	In the waterfall model, the total defects in the developed software are higher.	In the V model, the total defects in the developed software are lower.

Question 11. As a BA, state your reason for choosing one model for this project.
Answer-

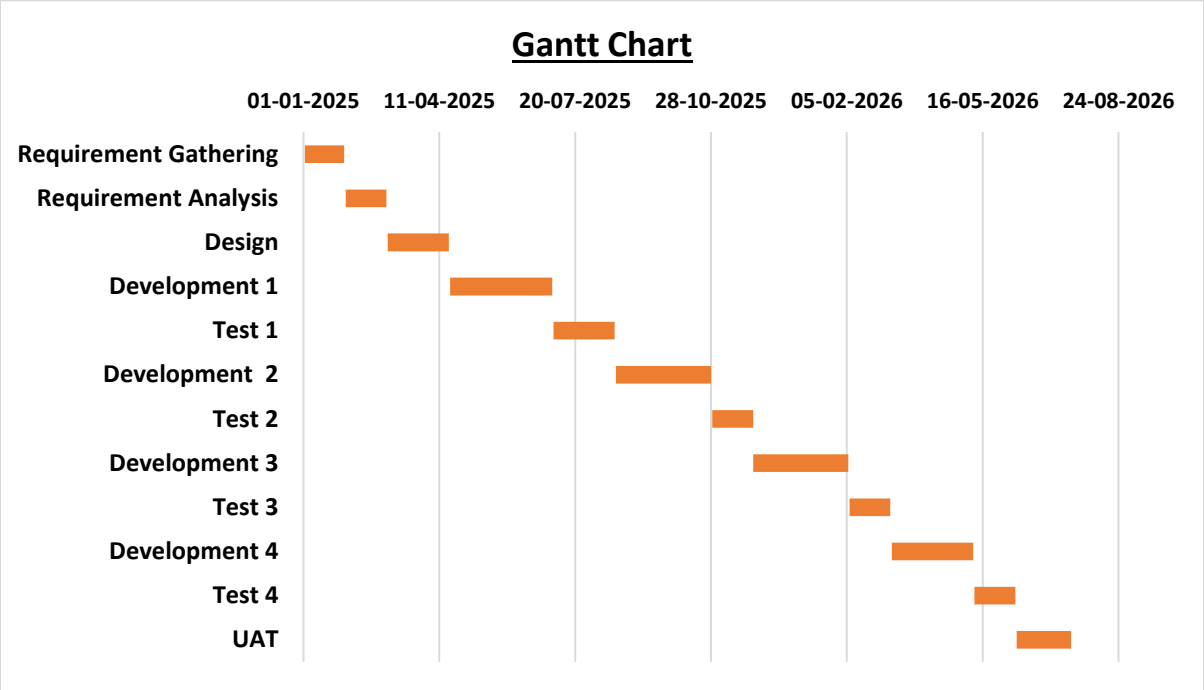
As a BA I would be choosing the Waterfall methodology.

The waterfall model is an easy-to-understand and simple model. The complete process is divided into several phases. One phase should be completed to reach the next phase. The first phase is requirement gathering and analysis. The requirements are then documented. It is called the Software Requirement Specification (SRS). The next is the system design phase. It is to design the entire software architecture. The next phase is the implementation phase. It is to start coding the small units. These units are combined to form the complete system and tested in the integration and testing phase. After the testing is completed, the software is distributed to the market. The activities such as maintenance of the software and adding new features come under deployment and maintenance. This model is appropriate for projects and when the requirements are very clear well-defined requirements, which is the case for the online agriculture product store project. The project has a clear objective of developing an e-commerce platform for farmers to buy agriculture products, and the requirements for the project have been shared by the stakeholders.

Question 12. The Committee of Mr. Henry, Mr Pandu, and Mr Dooku discussed with Mr Karthik and finalised on the V Model approach (RG, RA, Design, D1, T1, D2, T2, D3, T3, D4, T4 and UAT) Mr Vandanam is mapped as a PM to this project. He studies this Project and Prepares a Gantt chart with V Model (RG, RA, Design, D1, T1, D2, T2, D3, T3, D4, T4 and UAT) as development process and the Resources are PM, BA, Java Developers, testers, DB Admin, NW Admin.
Answer-

Project Task	Start Date	End Date	Time in Days
Requirement Gathering	02-01-2025	31-01-2025	29
Requirement Analysis	01-02-2025	03-03-2025	30
Design	04-03-2025	18-04-2025	45
Development 1	19-04-2025	03-07-2025	75
Test 1	04-07-2025	18-08-2025	45
Development 2	19-08-2025	28-10-2025	70
Test 2	29-10-2025	28-11-2025	30
Development 3	28-11-2025	06-02-2026	70
Test 3	07-02-2026	09-03-2026	30
Development 4	10-03-2026	09-05-2026	60

Test 4	10-05-2026	09-06-2026	30
UAT	10-06-2026	20-07-2026	40
Total			554



Question 13. Explain the difference between Fixed Bid and Billing projects

Answer-In project management and contracting, the terms "fixed bid" and "billing projects" refer to different approaches to how a service provider or contractor charges for their work. Here's a breakdown of each:

- **Fixed Bid-**

A fixed bid (also called a fixed-price contract) means that the service provider agrees to complete the project for a set price, regardless of how much time or resources are required. This type of agreement is typically used for projects with well-defined requirements and outcomes. The price is agreed upon upfront and doesn't change unless the scope of the project is altered by the client.

Key characteristics of fixed bid projects:

- **Set price**: The contractor or service provider agrees to complete the work for a specified total amount.
- **Risk for the provider**: The service provider bears the risk of any cost overruns or additional work that wasn't accounted for initially.
- **Scope clarity**: Works best when the project scope and deliverables are clearly defined from the outset.
- **Predictable costs**: The client knows exactly what the project will cost, no matter how long it takes.

- **Billing Projects-**

In billing projects (also known as time and materials or hourly billing), the client is charged based on the actual time spent and the materials used during the project. The service provider charges either an hourly rate or a rate based on resources consumed (e.g., materials, tools, or equipment).

Key characteristics of billing projects:

- **Variable cost**: The total cost depends on how long the work takes and the materials required, so the final price isn't fixed upfront.
- **Flexibility**: The client can make changes or adjustments to the scope of the project as it progresses without renegotiating the contract.
- **Risk for the client**: The client bears the risk of cost overruns if the project takes longer than expected or requires more resources than planned.
- **Less predictable costs**: The total cost can vary depending on the project's complexity or unexpected challenges.

Question 14.

- Design Timesheet of a BA
- Development Timesheet of a BA
- Testing Timesheet of a BA
- UAT Timesheet of a BA
- Deployment and Implementation Timesheet of a BA

Answer-

- **Design Timesheet of a BA-**

S.No	Tasks	Aactionable Items	Start Time	End Time	Duration in hrs
1	Requirements Review	Review finalized requirements	10:00 AM	11:00 AM	1
2	Stakeholder Consultation	Conduct meetings with stakeholders	11:00 AM	1:00 PM	2
3	User Interface Design	collaborate with UI/UX designers	2:00 PM	4:00 PM	2
4	Data Model design	Analyse data requirements and design DB schema	4:30 PM	5:30 PM	1
5	System Architecture design	Collaborate with teams to design system architecture	5:30 PM	7:30 PM	2
				Total-	**8 hrs.**

- **Development Timesheet of a BA-**

S.No	Tasks	Actionable Items	Start Time	End Time	Duration in hrs
1	Develop a project charter	Outline project constraints, goals, roles and responsibilities of all stakeholders involved, budget, the expected timeline, etc	10:00 AM	11:00 AM	1
2	Project planning	Creating a plan to allocate tasks to each team member	11:00 AM	1:00 PM	2
3	Execution of project plan	meeting with project manager to ensure deliverables are being worked upon	2:00 PM	4:00 PM	2
4	Controlling/Quality assurance	meeting with project development team	4:30 PM	5:30 PM	1
5	Closure	collecting feedback from stakeholders	5:30 PM	7:30 PM	2
				Total-	**8 hrs.**

- **Testing Timesheet of a BA-**

S.No	Tasks	Actionable Items	Start Time	End Time	Duration in hrs
1	Test planning	Gathering testing requirements and identifying test objectives	10:00 AM	12:00 PM	2
2	Test case Development	Review requirements and design test cases	1:00 PM	2:30 PM	1.5
3	Test environmental set up	install and configure the necessary software	2:30 PM	3:30 PM	1
4	Test execution	Execute test cases and identify the log defects	4:00 PM	6:30 PM	2.5
5	Test Documentation	document test results & prepare summary reports	6:30 PM	7:30 PM	1
					Total- 8 hrs.

- **UAT Timesheet of a BA-**

S.No	Tasks	Actionable Items	Start Time	End Time	Duration in hrs
1	UAT Planning and preparation	Review test objectives and identify test scenarios	10:00 AM	11:00 AM	1
2	UAT test script development	Create UAT test scripts	11:00 AM	12:30 PM	1.5
3	UAT test execution	Execute test Scripts, record the results and defects	1:30 PM	4:00 PM	2.5
4	Defect Management	Document and track the UAT defects	4:30 PM	5:30 PM	1
5	UAT test closure	Evaluate the results and prepare UAT closure report	5:30 PM	6:30 PM	1
					Total- 7 hrs.

- **Deployment and Implementation Timesheet of a BA-**

S.No	Tasks	Actionable Items	Start Time	End Time	Duration in hrs
1	Solution Design	Collaborate with development team	10:00 AM	12:00 PM	2

2	Functional Specifications	Document detailed functional specification	1:00 PM	4:00 PM	3
3	User Interface design	Work with UI/UX designers	4:30 PM	6:30 PM	2
4	Data mapping	Analyse date requirements and map data elements	10:00 PM	12:00 PM	2
5	Test planning	Collaborate with QA team	12:00 PM	1:00 PM	1
6	User Acceptance Testing	Coordinate UAT with stakeholders	2:00 PM	6:00 PM	4
7	Training and Documentation	Prepare training materials and user guides	10:00 PM	1:00 PM	3
8	Deployment	Collaborate with IT team for system deployment	2:00 PM	4:00 PM	2
					Total-19 Hrs.