## **Capstone Project 1 Part 1 Online Agriculture Products Store**

Mr. Henry, after being successful as a businessman and has become one of the wealthiest persons in the city. Now, Mr. Henry wants to help others to fulfil their dreams. One day, Mr. Henry went to meet his childhood friends Peter, Kevin and Ben. They live in a remote village and do farming. Mr. Henry asked his friends if they are facing any difficulties in their day-to-day work. Peter told Mr. Henry that he is facing difficulties in procuring fertilizers which are very important for farm. Kevin said that he is also facing the same problem incase of buying seeds for farming certain crops. Ben raised his concern on lack of pesticides which could help in greatly reducing pests in crops. After listening to all his friends' problems, Mr. Henry thought that this is a crucial problem faced not only by his friends but also by so many other farmers. So, Mr. Henry decided to make an online agriculture product store to facilitate remote area farmers to buy agriculture products. Through this Online Web / mobile Application, Farmers and Companies (Fertilizers, seeds and pesticides manufacturing Companies) can communicate directly with each other. The main purpose to build this online store is to facilitate farmers to buy seeds, pesticides, and fertilizers from anywhere through internet connectivity. Since new users are involved, Application should be user friendly. This new application should be able to accept the product (fertilizers, seeds, pesticides) details from the manufacturers and should be able to display them to the Farmers. Farmers will browse through these products and select the products what they need and request to buy them and deliver them to farmers location. Mr. Henry has given this project through his Company SOONY. In SOONY Company, Mr Pandu is Financial Head and Mr Dooku is Project Coordinator. Mr. Henry, Mr Pandu, and Mr Dooku formed one Committee and gave this project to APT IT SOLUTIONS company for Budget 2 Crores INR and 18 months Duration under CSR initiative. Peter, Kevin and Ben are helping the Committee and can be considered as Stakeholders share requirements for the Project .The Committee of Mr. Henry , Mr Pandu , and Mr Dooku and Mr Karthik is the Delivery Head in APT IT SOLUTIONS company and he reached out to Mr Henry through his connects and Bagged this project. APT IT SOLUTIONS company have Talent pool Available for this Project. Mr Vandanam is project Manager, Ms. Juhi is Senior Java Developer, Mr Teyson, Ms Lucie, Mr Tucker, Mr Bravo are Java Developers. Network Admin is Mr Mike and DB Admin is John. Mr Jason and Ms Alekya are the Tester. And you joined this team as a BA.

Prepared by: **Niharika** (05/05/2025)

#### Question 1: BPM - 5 marks

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

#### Answer 1:

<u>Business process model:</u> Business process model is a visual representation of an organisations business illustrating the steps activities and interactions involved.

### a. Goal:

- To provide user friendly online web/mobile application for farmers and companies which manufacture agricultural products like fertilizers, seeds and pesticides. So that farmer and companies can connect with each other.
- To facilitate farmers to buys seeds ,fertilizer and pesticides from anywhere through internet connectivity.
- To provide facility of getting agricultural products delivered at farmers doorstep.

## b. Inputs:

- Farmers requirements.
- Agricultural products Fertilizer, seeds, and pesticides.
- Manufacturing companies.

#### c. Resources:

- Agricultural products.
- Manufacturing companies
- Project team working on project
- Delivery team
- Internet connectivity
- Device through which system will be accessible -computer, Laptop & mobile phone.

#### **d. Activities:** (performed in specific order)

- Signup and login for farmers and manufactures.
- Accept the product details from manufacturing companies.
- Listing of the products and display it to farmers
- Farmer will browse (search)and select the product.
- Farmer will buy the product using their convenient payment gateway (it could be COD, Credit/Debit card OR UPI).
- Farmer will get notified via email along with the order details once the order is confirmed.
- Farmer can track their order using delivery tracker

### e. Output:

- Website/mobile app for farmers to purchase agricultural products like fertilizers, seeds, pesticides.
- Platform for manufacturing companies to list agricultural products.
- Orders successful.
- Shipped product to customers.

#### f. End value to customer:

- User friendly and easy to use application for farmers.
- Easy online ordering and can be accessible from anywhere, anytime.
- Online store available on both web and mobile devices.
- Increase in agricultural production, time & money saving for farmer.
- Farmer satisfaction.
- Reliable shipping and delivery services.

## **Question 2 SWOT -5 marks**

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 2:

SWOT is acronym for Strength, weakness, opportunities and threats in my opinion below aspects of SWOT should be considered by Mr. Karthik.

Strengths and weaknesses are factors internal to organization , organizational unit or solution while opportunities and threats are external factors.

## Strengths:

- As Mr henry is already successful businessman. Hence his connections can be used for the marketing and outreach.
- The project is a CSR initiative ,which can improve the company reputation and public image
- The involvement of peter, kelvin and ben as stakeholders can provide valuable insights in to the needs and challenges of farmers.
- Availability of skilled java developers to build robust and scaled backend.

#### Weaknesses:

- The remote location of the target users may present challenges in terms of connectivity and logistics.
- The project has a fixed timeline of 18 months ,which can put pressure on the team to deliver within deadline.
- Team is handling this kind of project for thr first time.
- Lack of resources to handle project at Mr. Henry 's company (SOONY).

### **Opportunities:**

- The online agriculture product store can address a significant need in the market and potentially capture a larger user base.
- The project can provide an opportunity for the team to expertise in the agriculture domain, which can be leveraged for future projects.

#### Threats:

- Are farmers educated about online store are they comfortable in ordering the products online?
- Is internet connectivity proper in rural areas?
- The project may face competition from other online agriculture product stores, if got developed by the time of release of project.

## **Question 3 Feasibility Study -5 marks**

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

#### Answer 3:

**Hardware:** Laptops, Servers, Clients, Peers, Storage, Networking Equipment's and Development tools.

<u>Software:</u> All the development software's including licensed java required to develop web and mobile applications. Here, it needs to be determined if any third-party software companies or API's are required to develop the application.

### **Trained Resources:**

- a) Mr Karthik as Delivery Head.
- b) Mr Vandanam is project Manager
- c) Ms. Juhi is Senior Java Developer
- d) Mr Teyson, Ms Lucie, Mr Tucker, Mr Bravo are Java Developers.
- e) Mr Mike as Network Admin
- f) Mr.John as DB Admin
- g) Mr Jason and Ms Alekya are the Tester.
- h) Ms. Niharika as Business Analyst.

Budget: 2 Cr.

**Time Frame:** 18 months.

### **Question 4 Gap Analysis-5 mark:**

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

### **Gap Analysis:**

A comparison of the current state and desired future state of an organisation in order to be addressed.

Where are we? (AS-IS PROCESS)

Where do you want to be? (TO -BE PROCESS)

#### **AS-IS PROCESS:**

- a) Farmers have to physically visit the market to buy agricultural products such as fertilizers, seeds, pesticides.
- b) Farmers don't have access to the variety of agricultural products as they have to rely on intermediaries with limited options for higher prices and low-quality products.
- c) The lack of communication between the farmers and manufacturers results in farmers not being able to purchase the latest and most effective products.

#### **TO- BE PROCESS:**

- a) Farmers will be able to order the required agricultural products online, saving their time and efforts.
- b) Farmers can buy products directly from manufacturers at affordable prices
- c) The online store will have to search the filtered products based on crop types, specific requirements and other parameters which will help farmers to find the right products early.
- d) Online store the manufacturers can communicate with farmers and provide them with latest products and technologies resulting in higher productivity and better crop yield.

Focus	Current state	Future state	Gap
Products	Limited brands	Multiple brand	
No of products	Limited	Multiple	
Payment	1 payment mode	Multiple payment mode	
Delivery	Immediate but farmers has travel without safe packing.		
Convenience	Farmers move around multiple factors places to find the best product.	Farmers can get best products with options to choose the best products.	

## Question 5 - Risk Analysis - 10 Marks

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

#### Answer 5:

As a business analyst, risk should be identified and managed to ensure the success of the project below are the BA risks and project risks to be considered.

### **BA Risks:**

Lack of understanding of the agriculture industry and the specific needs of farmers in remote areas.

Miscommunication with stakeholders resulting in unclear requirements.

Unclear project objectives and scope.

Difficulty in gathering and managing stakeholder requirements due to their remote location.

Insufficient resources or unavailability of the resources and budget allocated for the project

## **Project Risks:**

Limited internet connectivity in remote areas leading to difficulty in accessing the online store.

Delay in delivery of materials due to unforeseen circumstances such as natural disasters or logical issues.

Security risks associated with online transactions and personal information of the users.

Technical risks associated with the development and implementation of the online store such as software bugs or system crashes.

Resistance to change from farmers who are accustomed to traditional methods of purchasing agricultural products to online buying.

## **Question 6: Stakeholder Analysis (RACI Matrix) - 8 Marks**

Perform stakeholder analysis (RACI Matrix) to find out the key stakeholders who can take Decisions and Who are the influencers

### Answer 6:

Stakeholder Analysis (RACI Matrix) RACI - Responsible (R) - Accountable (A) - Consulted (C)- Informed (I)

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

Mapping your task or activities against roles. Activities should be left side down the chart where as roles in the top of the chart

RACI - Res	oonsible (I	R) - Accountable	(A) - Con	sulted (C)- In	formed (	[1)		
Tasks	Mr Henry - Project Sponso r	Peter, Kevin, Ben - (Key Stakeholders)	Mr. Karthi k – DH	Mr. Vandana m - PM	Ms. Juh i Sr Jav a Dev	Teyson , Lucie, Bravo & Tucker - Java Dev	Mr. Jason & Ms. Alekya - Testers	Niharika - BA
Requirement Gathering		С		A/I				R
Requirement Analysis				I				R
Development				R/A	C/A	R		
Testing		-		i	I		R	I
Implementation		-	R	I				R
UAT	I			R/A				i

### **Question 7 – Business Case Document - 8 Marks**

Help Mr Karthik to prepare a business case document

### Answer 7:

## Following points are to be covered:

Why is this project initiated?

What are the current problems? GAP analysis..

What are the resources required ? 14 -15 people.

How much organizational change is required to adopt this technology? A percentage

how much change can be done.

With this project how many problems could be solved?

Time frame to recover ROI.

How to identify stakeholders? Via RACI we can identify.

Why is this project initiated?

 Mr. Henry identified need for farmers to deliver them agriculture products on their doorstep and opportunity for himself to capitalize an opportunity.

What are the current Problems?

• Difficulties in procuring fertilizers which are very important for farm. Buying seeds for farming certain crops and lack of pesticides which could help in greatly reducing pests in crops.

With this project, how many problems could be solved?

• This project will facilitate farmers to buy seeds, pesticides, and fertilizers from anywhere through internet connectivity.

What are the resources required?

- Financial resources such as banks, investors.
- Manpower such as packers, delivery boys.
- Developers and testers to test and develop the project.
- Sellers/Dealers to tie up and sell products online.
- Balsmig, Visio, Java, Azure, Power BI In the this business case documents.
- MR. Karthik needs to analyze the things like- A business case is a package of information , analysis and recommendations.
- A business case is prepared by Sr.BA, Business Architect & Pre-sales team.
- A business case also helps in identifying key stakeholders who are affected by the problem. 14-15 people of dedicated team is required.
- To complete this project we need PM, BA, Software developers, testers, technical team, DB.

How many organizational changes is required to adopt this technology?

Unpredictable because changes might occur or not occur it depends.

What is the time frame to recover ROI?

1 year.

How to identify stakeholders?

- Stakeholders are identified on below basis:
- Understanding purpose of identifying stakeholders.
- Determine their impact on the project.
- Their needs in relation to the project.
- Mr Henry, Peter, Kevin, Ben, Farmers and sellers are the prime stakeholders.
- Following are the high-level scope for this engagement:
- Requirement Study
- Design
- Testing
- Development.

### Question 8 – Four SDLC Methodologies - 8 Marks

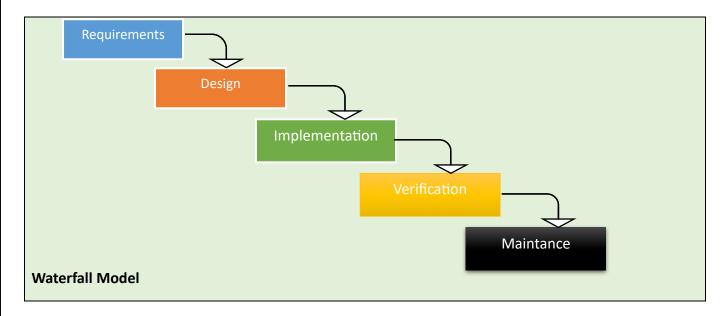
#### Answer 8:

## Waterfall (Sequential):

Waterfall methodology is a development process where all the phases flow like a waterfall. Each phases need to be completed before the next phase begins. There are 5 stages in waterfall methodology.

**I. Requirement** – Waterfall model depends on all the requirements gathered and understood upfront.

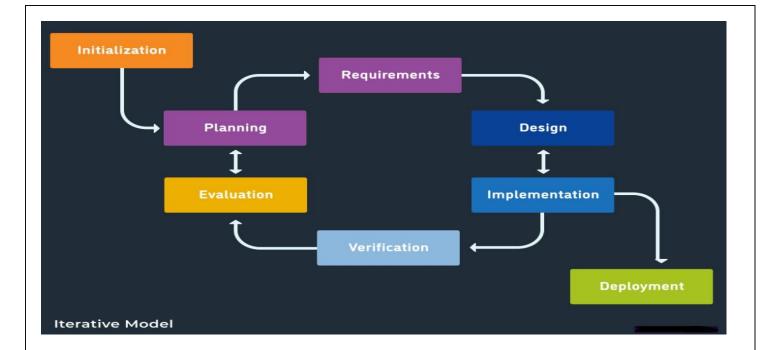
- **II. Design** Once the requirement is gathered, the technical team designs the requirement into layouts, data models, prototypes etc.
- **III. Implementation** One the design is completed; the technical team starts coding as per the design or prototypes.
- **IV. Testing** before the product is delivered to the customer, the product/software needs to be tested.
- **V. Deployment/Maintenance** Once the software is tested, it gets released to the customer and with that maintenance phase begins.



### **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 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: modelling, analysis and design, implementation, testing and application. The four consecutive phases are:

- Inception phase
- Elaboration phase
- Construction phase
- Transition phase



**Spiral Model**: Spiral model is an SDLC methodology which combines Iterative development and Waterfall model. It is used for Risk management. This SDLC model is mostly used for large and complicated projects. The spiral model enables gradual releases and refinement of a product through each phase of the spiral as well as the ability to build prototypes at each phase. It can manage unknown risks once the project is started.

The radius of the Spiral model represents the cost of the project, and the angular degree represents the progress made in the current phase. Every phase can be broken into four quadrants:

**Identifying and understanding requirements** - Every phase can be broken into four quadrants: identifying and understanding requirements, performing risk analysis, building the prototype and evaluation of the software's performance.

**Performing risk analysis**: risk analysis should be performed on all possible solutions to find any faults or vulnerabilities, such as, running over the budget or areas within the software.

**Building the prototype**: Prototype is built and tested. This step includes architectural design, design of modules, physical product design and the final design.

**Evaluation of the software's performance**: In the final quadrant, test results of the newest version are evaluated. This analysis allows programmers to stop and understand what worked and didn't work before progressing with a new build. At the end of this quadrant, planning for the next phase begins and the cycle repeats. At the end of the whole spiral, the software is finally deployed in its respective market.

**Steps:** While the phases are broken down into quadrants, each quadrant can be further broken down into the steps that occur within each one. The steps in the spiral model can be generalized as follows:

The new system requirements are defined in as much detail as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.

A preliminary design is created for the new system.

The first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system and represents an approximation of the characteristics of the final product.

A second prototype is evolved by a fourfold procedure: (1) evaluating the first prototype in terms of its strengths, weaknesses, and risks; (2) defining the requirements of the second prototype; (3) planning and designing the second prototype; (4) constructing and testing the second prototype.

The entire project can be aborted if the risk is deemed too great. Risk factors might involve development cost overruns, operating-cost miscalculation and other factors that could result in a less-than-satisfactory final product.

The existing prototype is evaluated in the same manner as was the previous prototype, and, if necessary, another prototype is developed from it according to the fourfold procedure outlined above.

The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.

The final system is constructed, based on the refined prototype.

The final system is thoroughly evaluated and tested. Routine maintenance is carried out on a continuing basis to prevent large-scale failures and to minimize downtime.

<u>Agile (Scrum)</u>: The Agile methodology is a way to manage a project by breaking it up into several phases. It's a process for managing a project that involves constant collaboration and working in iterations. Agile project management works off the basis that a project can be continuously improved upon throughout its life cycle, with changes being made quickly and responsively.

Agile's four main values are:

Individuals and interactions over processes and tools Working software over comprehensive documentation Customer collaboration over contract negotiation Responding to change over following a plan

#### 12 Principles for Agile Methodology

The Agile Alliance defines twelve principles for those who need to attain agility:

Satisfy the client through early and continuous delivery of valuable computer software.

Welcome changing requirements, even late in development. <u>Agile processes</u> harness modification for the customer's competitive advantage.

Deliver working software frequently, from a pair of weeks to a couple of months, with a preference to the shorter timescale.

Business people and developers should work along daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face to face conversation.

Working with computer software is the primary life of progress.

Agile processes promote property development. The sponsors, developers, and users will be able to maintain a relentless pace indefinitely.

Continuous attention to technical excellence and smart style enhances nimbleness.

Simplicity—the art of maximizing the number of work not done—is essential.

the most architectures, necessities, and styles emerge from self-organizing groups.

At regular intervals, the team reflects on a way to become simpler,

## Frameworks of Agile:

**Scrum**: Scrum is an Agile development methodology used

in the development of Software based on an iterative and

incremental processes.

**Methodology and Process**: Scrum is executed in temporary blocks that are short and periodic, called Sprints, which usually range from 2 to 4 weeks. Each Sprint is an entity in itself, that is, it provides a complete result, a variation of the final product that must be able to be delivered to the client with the least possible effort when requested.

The process has as a starting point, a list of objectives/ requirements that make up the project plan. It is the client of the project that prioritizes these objectives considering a balance of the value and the cost thereof, that is how the iterations and consequent deliveries are determined.

#### **Events in Scrum**

Each of the Scrum events facilitates the adaptation of some of the aspects of the process, the product, progress or relationships.

- **1. Sprint**: Sprint is the basic unit of work for a Scrum team. This is the main feature that marks the difference between Scrum and other models for agile development.
- **2. Sprint Planning**: The goal of the Sprint Planning is to define what is going to be done in the Sprint and how it is going to be done. This meeting is held at the beginning of each Sprint and is defined how it will approach the project coming from the Product Backlog stages and deadlines. Each Sprint is composed of different features.
- **3. Daily Scrum**: The objective of the Daily Scrum is to evaluate the progress and trend until the end of the Sprint, synchronizing the activities and creating a plan for the next 24 hours. It is a brief meeting that takes place daily during the Sprint period. Three questions are answered individually: What did I do yesterday? What am I going to do today? What help do I need? The Scrum Master should try to solve problems or obstacles that arise.
- **4. Sprint Review**: The goal of the sprint review is to show what work has been completed with regards to the product backlog for future deliveries. The finished sprint is reviewed, and there should already be a clear and tangible advancement in the product to present to the client.
- **5. Sprint Retrospective**: The team reviews the completed goals of the finished sprint, write down the good and the bad, so as not to repeat the mistakes again. This stage serves to implement improvements from the point of view of the development process. The goal of the sprint retrospective is to identify possible process improvements and generate a plan to implement them in the next Sprint.

## Question 9 – Waterfall RUP Spiral and Scrum Models – 8 Marks

They discussed models in SDLC like waterfall RUP Spiral and Scrum. You put forth you're understanding on 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 waterfall model. As a business analyst, which methodology do you think would be better for this project?

#### Answer 9:

- 1. Waterfall: Waterfall model is the oldest and most structured method. In this model, each phase depends on the outcome of the previous phase and all the phases runs sequentially. This model provides discipline and gives a tangible output at the end of each phase. However, this model doesn't work well when flexibility is a requirement. There is little room for change once a phase is deemed complete, as changes can affect the cost, delivery time, and quality of the software.
- As a BA I would be choosing Waterfall methodology because:
   It is a simple & easy to understand model. The complete process is divided into several phases.
- 2) 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 swot system design phase.
- 3) It is to design the entire software architecture. Next phase is the implementation phase.
- 4) 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.
- 5) 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.

#### Question 10 – Waterfall Vs V-Model - 5 Marks

Write down the differences between waterfall model and V model.

## Answer 10:

Difference betwe	en V-Model and Waterfall Model	
Parameter	V Model	Waterfall Model
Definition	V-Model is the development model in which the entire model is divided into various sub- development phases where the corresponding testing phase for each development phase is practiced.  For every stage in the development cycle, there is an associated testing phase and the corresponding testing phase of the development phase is planned in parallel.	In the Waterfall model, an application is developed first, after which it is tested using different testing techniques.  The complete process is divided into several phases among which one phase should be completed in order to reach the next phase and testing is almost at end phase of the development.
Type/Nature	In the V-Model, the execution of the phases i.e., development and testing happens in a sequential manner so type of V-Model is Sequential/Parallel in nature.	Waterfall Model is a relatively linear sequential design approach as each phase should be completed in order to reach the next phase. So type of this model is Continuous in nature.
Testing and Validation	In the V-Model, each development phase get tested at its own level and hence no pending testing occurs in this model also if any validation requires to be implemented then it could be implemented at that phase.	In the Waterfall Model, the testing occurs after development is completed and thus if any missing validation is identified to be implemented then first that phase of development needs to be recognized and then that validation get implemented.
Cost and Complexity	As sequential phases need to be functional in case of V-Model hence the cost is higher as compared to that of WaterFall Model also the complexity is more than WaterFall.	In the Waterfall Model, due to linear development, only one phase of development is operational and hence cost and complexity is low as compared to that of V-Model.
Defects	In the V-Model, the probability of total number of defects in the development of application is low as testing is done in parallel to the development.	In the Waterfall Model, the probability of total number of defects in the development of application is high as testing is done post development.

# **Question 11 – Justify your choice - 3 Marks**

## Answer 11:

As a BA, state your reason for choosing one model for this project

As a business analyst, my recommendation would be to use the Waterfall model for this project. The Waterfall model is a linear sequential approach where each phase of the software development process is completed before moving onto the next phase. This model is suitable for projects with clear and 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 – Gantt Chart - 5 Marks

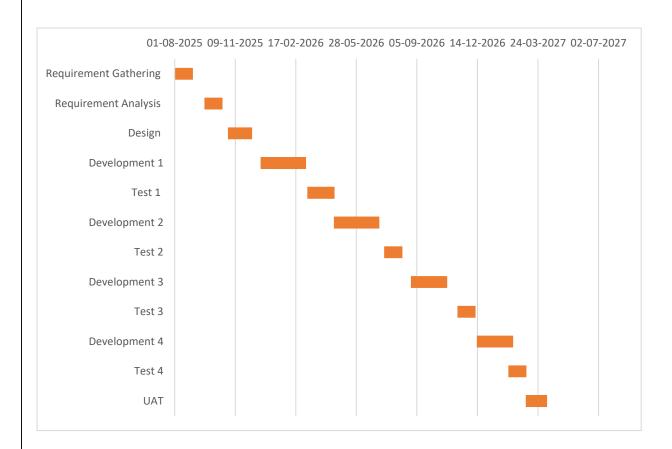
### Answer 12:

A Gantt chart is a type of bar chart used in project management to illustrate a project schedule:

#### **Key Components**

- 1. Tasks: The individual activities or tasks that make up the project.
- 2. Dependencies: The relationships between tasks, showing which tasks depend on others.
- 3. Timeline: The horizontal axis representing the project timeline.
- 4. Bars: The bars representing the start and end dates of each task.

Tasks	Start date	End date	Time (in days )	weeks
Requirement Gathering	01-08-2025	18-09-2025	30	4
Requirement Analysis	19-09-2025	27-10-2025	30	4
Design	28-10-2025	20-12-2025	40	5
Development 1	21-12-2025	05-03-2026	75	8
Test 1	08-03-2026	20-04-2026	45	6
Development 2	21-04-2026	10-07-2026	75	8
Test 2	13-07-2026	23-08-2026	30	4
Development 3	26-08-2026	10-11-2026	60	6
Test 3	11-11-2026	12-12-2026	30	4
Development 4	13-12-2026	02-02-2027	60	6
Test 4	03-02-2027	03-03-2027	30	4
UAT	04-03-2027	30-04-2027	35	4
Total			540	63



## Question 13 - Fixed Bid Vs Billing - 5 Marks

Explain the difference between Fixed Bid and Billing projects

## Answer 13:

## Fixed Bid model Vs Billing model:

- 1. Fixed Bid project is a project in which the time and scope is fixed within a budget and has a deadline associate with it. In fixed bid model, the client will give all the details, specs and mock ups and all the requirements upfront, so that vendor can provide a Bid showing the project cost. In this model, vendor should be good in estimating the time and budget, as they need to explain the client, as how much time it would take for them to finish the project and how much it would cost. This model has less financial risk, however it has no flexibility or room for adjustments, as the budget and time is fixed. This model usually works with smaller projects with limited features and clear requirements.
- 2. Billing Model (Time and Material) is a project where the project is billed in hourly basis. Vendor will set up a team and presented to the client to bill them for their time spent on development. This model is flexible in nature, as changes can be added in the middle of the project. This model allows client to monitor the progress as developers present reports on work completed.

## **Question 14 – Preparer Timesheets of a BA in various stages of SDLC - 20 marks**

## Answer 14:

## Requirement Gathering Timesheet of a BA:

Employee Name	Niharika
Department	Business Analysis
Activity	Requirement Gathering
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task			Logging In	Logging Out	Hours
Monday	01-08-25	Stakeholder A	nalysis		8:00 AM	10:00 AM	2:00
		Eliciting Stakeholders	Req.	from	10:00 AM	12:00 PM	2:00
		Eliciting Stakeholders	Req.	from	1:00 PM	5:00 PM	4:00
Tuesday	11-08-25	Eliciting Stakeholders	Req.	from	8:00 AM	12:00 PM	4:00
		Eliciting Stakeholders	Req.	from	1:00 PM	5:00 PM	4:00
Wednesday	12-08-25	Documenting	Requireme	nts	8:00 AM	10:00 AM	2:00
		Confirming Re	quirements	5	10:00 AM	12:00 PM	2:00
		Sorting Requi	rements		1:00 PM	2:00 PM	1:00
		Prioritizing Re	quirement		2:00 PM	3:00 PM	1:00
		Assess Requir	Assess Requirement Changes		3:00 PM	4:00 PM	1:00
		Getting Req. A	Approval		4:00 PM	5:00 PM	1:00
Total Hours							24:00
Total Pay							\$ 1,680

## RA Timesheet of a BA:

Employee Name	Niharika
Department	Business Analysis
Activity	Requirement Analysis
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	Logging Out	Hours	
Thursda	19-09-25	Specify the Requirements	8:00 AM	9:00 AM	1:00	
У						
		Model the Req. using Use case Diagrams & Matrices	10:00 AM	12:00 PM	2:00	
		Verify the Requirements	1:00 PM	2:00 PM	1:00	
		Validate the Requirement	2:00 PM	3:00 PM	1:00	
		Defining Business Requirements	3:00 PM	5:00 PM	2:00	
	Total Hours					
		Total Pay			\$ 490	

# Design Timesheet of a BA:

Employee Name	Niharika
Department	Business Analysis
Activity	Design Timesheet
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	<b>Logging Out</b>	Hours	
Friday	28-10-25	Preparing Test cases	8:00 AM	9:00 AM	1:00	
		Allocating the requirements	9:00 AM	10:00 AM	1:00	
		Identifying improvement opportunities	10:00 AM	11:00 AM	1:00	
		Assessing Design options	11:00 AM	12:00 PM	1:00	
		Assessing Design options	1:00 PM	2:00 PM	1:00	
		Estimating Benefits and Costs	2:00 PM	3:00 PM	1:00	
		Communicate with client about Designs & Solutions	3:00 PM	5:00 PM	2:00	
		Recommending Solutions	5:00 PM	6:00 PM	1:00	
	Total Hours					
Overtime						
		Total Pay			\$ 630	

# **Development Timesheet of a BA**

Employee Name	Niharika
Department	Business Analysis
Activity	Development Timesheet
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	Logging Out		our S
Monda y	21-12-25	Coordinate meetings with the Team	8:00 AM	9:00 AM	1	:00
		Checking on the approvals after each Development phase	9:00 AM	11:00 AM	2	:00
		Clarifies all queries of technical team at the End of each Phases	11:00 AM	1:00 PM	2	:00
		Outlining Business Requirements	1:00 PM	2:00 PM	1	:00
		Working on Change in requirements in development stage from clients	2:00 PM	4:00 PM	2	:00
Total Hours						8:00
		Total Pay				\$ 560

# Testing Timesheet of a BA

Employee Name	Niharika
Department	Business Analysis
Activity	Testing Timesheet
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	Loggi ng Out	Hours
Tuesday	08-03- 2026	Work with Testing team to create system test plans	8:00 AM	9:00 AM	1:00
		Create and execute the system test cases	9:00 AM	11:00 AM	2:00
		Review system cases prepared by Testing team	11:00 AM	1:00 PM	2:00
		Provide requirements clarifications when required by Testing Team.	1:00 PM	2:00 PM	1:00
		Take signoff from client on client project acceptance form.	2:00 PM	4:00 PM	2:00
Total Hours				8:00	
Total Pay			\$ 560		

## **UAT Timesheet of a BA**

Employee Name	Niharika
Department	Business Analysis
Activity	UAT Timesheet
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	Logging Out	Hours
Wedn esday		Develop the detailed UAT test Plan	8:00 AM	9:00 AM	1:00
		Develop the test case scenario	9:00 AM	11:00 AM	2:00
		Create UAT test cases	11:00 AM	1:00 PM	2:00
		Test case data preparation	1:00 PM	2:00 PM	1:00
		Run the test cases	2:00 PM	3:00 PM	1:00
Total Hours					7:00
Total Pay					\$ 490

# Deployment n Implementation Timesheet of a BA

Employee Name	Niharika
Department	Business Analysis
Activity	Deployment and Implementation Timesheet
Supervisor	Mr. Vandanam
Hourly Rate	\$ 70 per hour

Day 1	Date	Task	Logging In	Logging Out	Hours
Thursday	04-03- 2026	Design RTM and forward to client	8:00 AM	9:00 AM	1:00
		Coordinate to complete manual	9:00 AM	11:00 AM	2:00
		Training sessions for end user	11:00 AM	3:00 PM	4:00
		Prepare a lesson learning from project	3:00 PM	4:00 PM	1:00
Total Hours				8:00	
Total Pay					\$ 560