

CAP STONE PROJECT 1

Question 1-BPM

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

Answer:

1. **Goals:** To bridge the gap between Farmers & Manufacturers of pesticides, seeds, fertilizers by building a online platform i.e website/mobile application.
2. **Inputs:** Manufacturer's data ,Product Details, Farmers Data
3. **Resources:** Internet ,Logistic support,Moblie
4. **Outputs:**
 - 1)User friendly Online agriculture store where manufacturers can display their products and farmers can browse& Purchase agri-products (pesticides,seeds,fertilizers)
 - 2)Ensure timely delivery of the products.
5. **Activities:** Good customer service, Connect farmers & Manufacturer.
Gather Manufactures & Farmers information, gather product details from manufacturer, display product details to farmers.
6. **Value Created to Customer:** Customer satisfaction, Increase the variety of products, customer support in case of queries.

Question 2-SWOT Analysis

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:

Strengths:

- 1)No other existing similar platform.
- 2)Good market requirement for the product.
- 3) Strong Business Experience

Weakness:

- 1)Dependencies on logistic support.
- 2)Gathering manufactures as well as farmers.

(Convincing fertilizer, seed, and pesticide manufacturers to list their products on the platform might require extra effort.)

Opportunities:

- 1)Expansion of product line.
- 2)Grow on larger scale due to product requirements.

Threats:

- 1)Can be growth in competition by reputed online platforms.(eg amazon can start selling the similar products)
- 2)Internet issues can hamper the usage of product target audience being remote farmers.

Question 3 – Feasibility study

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:

Amount assigned:1Cr.

Hardware:

Web servers, Database servers, Laptops & PCs

Total cost: 5 Lakhs

Software:

E-commerce Platform, Payment Gateway, Security applications, logistics tracking application

Total cost: 15 Lakhs

Resources:

- Java Developer Team
- BA
- Manager

Total Cost: 30 Lakhs

Duration: 18 Months

Question 4 – Gap Analysis

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:

Current State (As is):

- 1) Farmers travel long distances to buy fertilizers, seeds, and pesticides and there is no online system available to buy agricultural products i.e seeds, fertilizers, pesticides.
- 2) Product availability issues probably because the farmers depend only on few available local shops.
- 3) Limited options at local stores.
- 4) Manual process to go physically and buy and get the product home by yourself.
- 5) No direct communication with manufacturers, leading to reliance on middlemen.

Desired State(To be):

- 1) Online one stop solution store for farmers to buy products at a click.
- 2) Connect farmers to direct manufacturers across India eradicating the issue of availability of products(fertilizers,pesticides,seeds) .
- 3) Make variety of options available to the farmers.
- 4) Farmers can order products online from their village using a mobile/web app and doorstep delivery integrated with logistics partners.
- 5) Direct manufacturer-to-farmer communication through chat or support features.

Question 5 – Risk Analysis

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

Answer:

Internal Risks:

- 1) Dependency on manufacturers for product supply and inventory management.
- 2) Dependency on logistic team for timely and proper delivery.
- 3) The development team may have little or no experience in the agriculture sector leading to issues.
- 4) System downtime can effect the potential buyers

- 5) In experienced team can result in e-commerce platforms, security, or payment gateways, quality to suffer.

External Risks:

- 1) Government policies regarding buying ,seeling or usage of agricultural products (seeds,fertilizers,pesticides) change.
- 2) Pre existing e-commerce platforms extend their scope and start selling agriproducts(seeds,fertilizers,pesticides).

BA Risks:

- 1) Incomplete or unclear requirements leading to gaps in problem solving.
- 2) Change in given requirements resulting in impact on timelines.
- 3) New Domain

Project based risks:

- 1) Budget can increase
- 2) Scope creep
- 3) Stakeholder Risks

Question 6 – Stakeholder Analysis (RACI Matrix)

Activities	Business Analyst	Project Manager	Subject Matter Expert	Developer	Tester	Client	UI Designer	NW and DB Admin	Operation Team
Planning& Requirement Gathering	R	A	C	I	I	I		R	
Designing	R	A		I		I	R	R	
Prototyping		A		I		I	R		
Coding		A		R		I			
Testing	R	A			R	I			
Deployment		A				I			
Maintenance		A				I			R

Question 7 – Business Case Document

Help Mr Karthik to prepare a business case document

Answer:

Business Case will have following information

1)Why is this project initiated?

The main purpose to initiate this project is to facilitate farmers to buy seeds, pesticides, and fertilizers from anywhere through internet connectivity. Currently the farmers of remote area face the problems in getting the above mentioned products which we aim to solve by connecting the farmers directly with the manufacturers through web/mobile app.

2) What are the current problems?

There is no online agriculture products store to buy seeds, fertilizers and pesticides online with ease. Remote area farmers are facing issues like procuring fertilizers, buying seeds, lack of pesticides.

3)With this project how many problems could be solved?

- This online agriculture product store will 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.
- So, using this web application we will able to solve various issues of farmers like procuring fertilizers, buying seeds, lack of pesticides.
- All agriculture products will be delivered to farmers doorstep.

4)What are the resources required?

- Stakeholders to share requirements for the project
- Project Manager
- Java Developers Team

- Testing Team
- Subject Matter Experts (SME's)
- Network Admin and DB Admin
- Operational Team
- BA

5)How much organizational change is required to adopt this technology?

- There will be no organizational change is required to adopt this technology, because this web application will build from scratch. There is no existing system/app in this scenario.

6)Time frame to recover ROI?

- 3-4 years

7)How to identify stakeholders?

- Find Stakeholders who have information regarding the current issues faced by remote area farmers so they can help to suggest solution and will contribute more in the project.
- Find stakeholders who have already worked with similar issues.
- Find stakeholders who are passionate and enthusiastic to deal with farmers issues.

Question 8 – Four SDLC Methodologies

The Committee of Mr. Henry , Mr Pandu , and Mr Dooku and Mr Karthik are having a discussion on 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:

1) Sequential-

- Sequential model is one of the simple and easy to understand model of SDLC.
- It is very easy to use as compared to other models of SDLC.
- This model is suitable for smaller projects where duration is less and requirements are clearly understood.
- In sequential model, there are 7 phases and each phase must be completed before beginning of next phase.
- This model contains Requirement Gathering, Analysis, Design, Implementation, Testing, Deployment, Maintenance phase.
- At the end of each phase review process takes place to determine project is on right path or not.
- This model is easy to manage due to rigidity because each phase has specific deliverables and a review process.
- Only one phase processed and completed at a time.
- This model doesn't work well with large and complex projects where requirements are changing.
- In this model working software is produced very late during the life cycle.
- Adjusting scope during the life cycle can kill a project.
- There is high amount of risk and uncertainty in this type of model.

2) Iterative-

- Iterative model is one of the easiest to implement SDLC models.
- This model is started based on initial requirements and first version of software is released.
- More features are added to the base software product with ongoing iterations until final product is created.
- Phases in Iterative Model-

1)Requirements Phase: In the requirements phase of software development, the system related information is gathered and analyzed.

2)Design Phase: In the Design phase, the software solution is prepared to meet the necessities for the design. The system design may be a new one or the extension of a previous build iteration.

3)Implementation and Test: In the implementation as well as a test phase, the system is developed by coding and building the user interface and modules which are then incorporated and tested.

4)Review Phase: The review phase is where the software is estimated and checked as per the current requirement. Then, further requirements are reviewed discussed and reviewed to propose for an update in the next iteration.

- Using this model, system requirements can be classified and understood well.
- Primary necessities of the system can be defined.
- This model is also useful when there are high risks in the system characteristic and goals.
- Situations where resources with required skill sets are not accessible, and the system needs to be developed on a contract basis, choosing this model is a suitable decision.
- Produces working software rapidly and before time throughout the SDLC.

3) Evolutionary-

- Evolutionary model is combination of incremental, iterative and prototyping model.
- In this model the requirement is broken down into different functional units.
- These functional units can also be referred to as module. These modules can be incrementally built and delivered.
- Here at the beginning the core module of the software product is developed.
- New functionality is built, added to existing one and released as new version.
- Each successive version is capable of performing more functions in comparison to its previous versions.
- It is a very suitable model because of user feedback and other factors that make the model very suitable for the development of complete Software.
- The user feedback is very helpful for the development of the next stage because after the completion of one stage we get the feedback to the user, the user feedback is very essential for the development of the next phase.
- If you want any changes in the software requirements, all changes will be applied within a time.
- It is very useful in a large project where you can easily find a module for step-by-step implementation. The evolutionary model is used when the users need to start using the many features instead of waiting for the complete software.
- The evolutionary model is also very useful in object-oriented software development because all the development is divided into different units.
- There are fewer chances of errors because all the modules are well seen.
- It helps to reduce the risk of software project and cost of development.
- Minimize serious problems during testing.

- The delivery of full software can be late due to different changes by customers during development.
- It is difficult to divide the problem into several parts, that would be acceptable to the customer which can be incrementally implemented and delivered.

4) Agile-

- The Agile methodology is a practice that encourages continuous development and testing throughout the software development lifecycle of a project.
- Agile methodologies attempt to produce the proper product through small cross-functional self-organizing teams that produce small pieces of functionality on a regular basis, allowing for frequent customer input and course correction as needed.
- Agile development is not that tough when broken down to its core concepts. While the number of meetings involved may appear unnecessary, it saves a lot of time by optimizing development tasks and avoiding the errors that can occur during the planning stages.
- **Four main values-**
 1. Individuals and interactions over processes and tools.
 2. Working software over comprehensive documentation.
 3. Customer collaboration over contract negotiation.
 4. Responding to change over following a plan.
- **Twelve Principles of Agile**
 1. Satisfy the customer through early and continuous delivery of valuable software.
 2. Welcome changing requirements, even late in development. Agile processes harness change for customer's competitive advantage.
 3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
 4. Business people and developers must work together daily throughout the project.
 5. Build projects around motivated individuals.
 6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
 7. Working software is the primary measure of progress.
 8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace.
 9. Continuous attention to technical excellence and good design enhances agility.
 10. Simplicity-the art of maximizing the amount of work not done is essential.

11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Question 9 – Waterfall RUP Spiral and Scrum Models

They discussed models in SDLC like waterfall RUP Spiral and Scrum . You put forth your understanding on these models

Answer:

1) Waterfall Model-

Waterfall Model is 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 before the next phase can begin and there is no overlapping in the phases.

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project.

In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.

The sequential phases in Waterfall model are –

- **Requirement Gathering and analysis** – All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- **System Design** – The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** – With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.

- **Integration and Testing** – All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** – Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** – There are some issues which come up in the client environment. To fix those issues, patches are released. Also, to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

Advantages of the Waterfall Model are as follows –

- Simple and easy to understand and use
- Easy to manage due to the rigidity of the model. Each phase has specific deliverables and a review process.
- Phases are processed and completed one at a time.
- Works well for smaller projects where requirements are very well understood.
- Clearly defined stages.
- Process and results are well documented.

Disadvantages of the Waterfall Model are as follows –

- No working software is produced until late during the life cycle.
- High amounts of risk and uncertainty.
- Not a good model for complex and object-oriented projects.
- Poor model for long and ongoing projects.
- Not suitable for the projects where requirements are at a moderate to high risk of changing. So, risk and uncertainty are high with this process model.
- It is difficult to measure progress within stages.
- Cannot accommodate changing requirements.
- Adjusting scope during the life cycle can kill the project.

2) RUP (Rational Unified Process)-

- The Rational Unified Process (RUP) is an iterative software development process framework created by the Rational Software Corporation, which was acquired by IBM in February 2003.
- RUP is based on a set of building blocks, or content elements, describing what is to be produced, the necessary skills required and the step-by-step explanation describing how specific development goals are to be achieved. The main building blocks, or content elements, are the following:
- Roles (who) -A Role defines a set of related skills, competencies and responsibilities.
- Work Products (what) -A Work Product represents something resulting from a task, including all the documents and models produced while working through the process.
- Tasks (how) - A Task describes a unit of work assigned to a Role that provides a meaningful result.
- Within each iteration, the tasks are categorized into nine disciplines:

Six "engineering disciplines"-

- Business Modeling
- Requirements
- Analysis and Design
- Implementation
- Test
- Deployment

Three supporting disciplines -

- Configuration and Change Management
- Project Management
- Environment

• **Four Project life Cycle Phases**

- Inception: agreement among the team and customer as to what will be built
- Elaboration: agreement within the team as to the architecture and design needed to deliver the agreed system behavior

- Construction: the iterative implementation of a fully functional system
- Transition: delivery, defect correction, and tuning to ensure customer acceptance
- **Six best practices**
 - Develop iteratively, with risk as the primary iteration driver
 - Manage requirements
 - Employ a component-based architecture
 - Model software visually
 - Continuously verify quality
 - Control changes

3) Spiral Model-

- The spiral model gives more emphases placed on risk analysis.
- The spiral model has four phases: Planning, Risk Analysis, Engineering and Evaluation. A software project repeatedly passes through these phases in iterations (called Spirals in this model). The baseline spiral, starting in the planning phase, requirements are gathered, and risk is assessed. Each subsequent spiral builds on the baseline spiral.
- Requirements are gathered during the planning phase. In the risk analysis phase, a process is undertaken to identify risk and alternate solutions. A prototype is produced at the end of the risk analysis phase.
- Software is produced in the engineering phase, along with testing at the end of the phase. The evaluation phase allows the customer to evaluate the output of the project to date before the project continues to the next spiral.
- In the spiral model, the angular component represents progress, and the radius of the spiral represents cost.

Advantages-

- High amount of risk analysis.
- Good for large and mission-critical projects.
- Software is produced early in the software life cycle.

Disadvantages

- Can be a costly model to use.

- Risk analysis requires highly specific expertise.
- Project's success is highly dependent on the risk analysis phase.
- Doesn't work well for smaller projects.

4) Scrum Model-

Scrum can be implemented either at the beginning of the project or when you sense that project is falling behind schedule. This model exercises full Admin Power.

Scrum Team: Project resources are grouped as Scrum teams which comprises of BAs, Developers, Testers. Each Team size will on average be 7-8.

Scrum Master: He will monitor the performance of the team within the sprint. Team will raise all their issues to scrum master and he will run to look for answers. This role can be played by any person in team normally BA's plays this role.

Product burndown: It shows how much work was left to do at the beginning of each sprint.

Sprint: This is the period that team decides to deliver their objective. Normally a sprint period will be before 2 weeks but may extend to 4 weeks

Meetings:

1)Sprint Planning Meeting -This happens at the beginning of each sprint and team decides on what they will be delivering in the sprint.

2)Daily Scrum Meeting - This happens each day where team will just answer 3 questions:

- What did u do today?
- what will u do tomorrow?
- Are there any impediments that is slowing or stopping u?

3)Sprint Review Meeting - This happens at the end of the sprint where team will demo the completed stories to product owner and get it cleared.

4)Sprint Retrospective Meeting - This happens at the end of the sprint where team will answer these 3 questions:

- What went well in the sprint?
- what did not go well?
- What are the required areas of improvements in next sprint?

5) V Model

- V-Model also referred to as the Verification and Validation Model. In this, each phase of SDLC must complete before the next phase starts. It follows a sequential design process same as the waterfall model. Testing of the device is planned in parallel with a corresponding stage of development.
- **Verification:** It involves a static analysis method (review) done without executing code. It is the process of evaluation of the product development process to find whether specified requirements meet.
- **Validation:** It involves dynamic analysis method (functional, non-functional), testing is done by executing code. Validation is the process to classify the software after the completion of the development process to determine whether the software meets the customer expectations and requirements.
- So, V-Model contains Verification phases on one side of the Validation phases on the other side. Verification and Validation process is joined by coding phase in V-shape. Thus, it is known as V-Model.

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?

Ans- V Model

Question 10 – Waterfall Vs V-Model

20Write down the differences between waterfall model and V model.

Answer:

Waterfall Model	V Model
The cost of Waterfall model is low.	V-model is expensive.
Simplicity of Waterfall model is simple.	Simplicity of V-model is Intermediate
Flexibility of Waterfall model is Rigid.	Flexibility of V-model is Little flexible.
Waterfall model is a sequential execution process.	It is also a sequential execution process.
Waterfall model's steps move in a linear way.	V-model's steps don't move in linear way
Re-usability of Waterfall model is Limited.	V-model can be Re-use for some extent.
User involvement in Waterfall model is only in beginning.	User involvement in V-model is also only in beginning.
In Waterfall model testing activities start after the development activities are over.	In V-model testing activities start with the first stage.
Guarantee of success through Waterfall model is low.	Guarantee of success through V-model is high.
Waterfall model is a continuous process.	V-model is a simultaneous process.
Software made using Waterfall model, the number of defects is less in comparison of software made using V-model.	Software made using V-model, the number of defects is greater in comparison of software made using Waterfall model.
Requirement specification in Waterfall model is necessary in beginning.	Requirement specification in V-model is also necessary in beginning.
Waterfall model is less used now-a-days in software engineering.	V-model is widely used in software engineering.

Question 11 – Justify your choice

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

Answer:

- As a BA, I will refer to choose V Model considering following points-
- V-Model also referred to as the Verification and Validation Model. In this, each phase of SDLC must complete before the next phase starts. It follows a sequential design process same as the waterfall model. Testing of the device is planned in parallel with a corresponding stage of development.
- **Verification:** It involves a static analysis method (review) done without executing code. It is the process of evaluation of the product development process to find whether specified requirements meet.
- **Validation:** It involves dynamic analysis method (functional, non-functional), testing is done by executing code. Validation is the process to classify the software after the completion of the development process to determine whether the software meets the customer expectations and requirements.
- So, V-Model contains Verification phases on one side of the Validation phases on the other side. Verification and Validation process is joined by coding phase in V-shape. Thus, it is known as V-Model.
- **There are the various phases of Verification Phase of V-model:**
 - **Business requirement analysis:** This is the first step where product requirements understood from the customer's side. This phase contains detailed communication to understand customer's expectations and exact requirements.
 - **System Design:** In this stage system engineers analyze and interpret the business of the proposed system by studying the user requirements document.
 - **Architecture Design:** The baseline in selecting the architecture is that it should understand all which typically consists of the list of modules, brief functionality of each module, their interface relationships, dependencies, database tables, architecture diagrams, technology detail, etc. The integration testing model is carried out in a particular phase.
 - **Module Design:** In the module design phase, the system breaks down into small modules. The detailed design of the modules is specified, which is known as Low-Level Design
 - **Coding Phase:** After designing, the coding phase is started. Based on the requirements, a suitable programming language is decided. There are some guidelines and standards for coding. Before checking in the repository, the final build is optimized for better performance, and the code goes through many code reviews to check the performance.
- **There are the various phases of Validation Phase of V-model:**

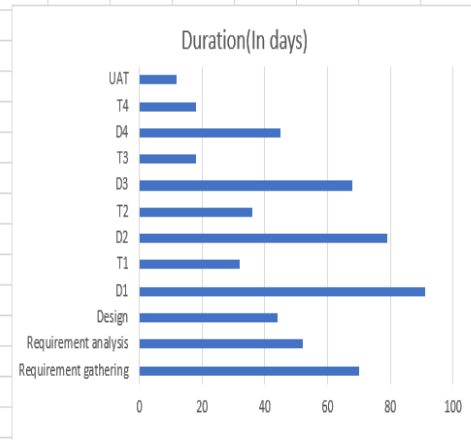
- **Unit Testing:** In the V-Model, Unit Test Plans (UTPs) are developed during the module design phase. These UTPs are executed to eliminate errors at code level or unit level. A unit is the smallest entity which can independently exist, e.g., a program module. Unit testing verifies that the smallest entity can function correctly when isolated from the rest of the codes/ units.
- **Integration Testing:** Integration Test Plans are developed during the Architectural Design Phase. These tests verify that groups created and tested independently can coexist and communicate among themselves.
- **System Testing:** System Tests Plans are developed during System Design Phase. Unlike Unit and Integration Test Plans, System Tests Plans are composed by the client's business team. System Test ensures that expectations from an application developer are met.
- **Acceptance Testing:** Acceptance testing is related to the business requirement analysis part. It includes testing the software product in user atmosphere. Acceptance tests reveal the compatibility problems with the different systems, which is available within the user atmosphere. It conjointly discovers the non-functional problems like load and performance defects within the real user atmosphere.
- **Advantages of V-Model:**
 - Easy to Understand.
 - Testing Methods like planning, test designing happens well before coding.
 - This saves a lot of time. Hence a higher chance of success over the waterfall model.
 - Avoids the downward flow of the defects.
 - Works well for small plans where requirements are easily understood.

Question 12 – Gantt Chart

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:

Activity	Responsible resources	Start Date	End date	Duration(In days)
Requirement gathering	BA,PM	12-05-2025	21-07-2025	70
Requirement analysis	BA,PM	22-07-2025	12-09-2025	52
Design	BA,PM,Java dveloper	14-09-2025	28-10-2025	44
D1	PM,Java developers,N/w Admin	29-10-2025	28-01-2026	91
T1	Java developers,Tester,DB admin	29-01-2026	02-03-2026	32
D2	PM,Java developers,N/w Admin	30-01-2026	19-04-2026	79
T2	Java developers,Tester,DB admin	21-04-2026	27-05-2026	36
D3	PM,Java developers,N/w Admin	22-04-2026	29-06-2026	68
T3	Java developers,Tester,DB admin	30-06-2026	18-07-2026	18
D4	PM,Java developers,N/w Admin	01-08-2026	15-09-2026	45
T4	Java developers,Tester,DB admin	16-09-2026	02-10-2026	18
UAT	BA, Tester, PM	03-10-2026	15-10-2026	12



Question 13 – Fixed Bid Vs Billing

Explain the difference between Fixed Bid and Billing projects

Answer:

A. Fixed Bid Model-

- A fixed-price contract is a type of contract wherein the payment does not depend on the resources or the time spent. It involves setting fixed price for the product, service or result defined in the contract.
- There are milestones in this project.
- We can track this projects progress with the help of milestones.
- Fixed Bid models are most suitable for long-term projects and those that have a high value to the client organization.

B. Billing Model-

- The Billing model works on a completely different principle than the Fixed-Price model. In this model, rather than pay a fixed sum right at the start, you pay the software team for the hours of work needed to finish a given project and for all of the materials they use.

- This type of cooperation model is useful when you cannot accurately estimate how much the project will cost or how long it will take to complete, so there's no set price or rigid deadlines for the team.
- There are no milestones in this type of model.
- We can track each and every day work in this model with the help of time and work.

Question 14 – Preparer Timesheets of a BA in various stages of SDLC

Answer:

1. Design Phase Timesheet

Tasks	Actions	Start Time	End Time	Duration
Requirement Gathering	Meeting with stakeholders	09:00 AM	11:00 AM	2h
Documentation	Writing Business Requirements (BRD)	11:00 AM	01:00 PM	2h
Review	Analyzing Functional Specification Document (FSD)	02:00 PM	03:30 PM	1.5h
Analysis	Preparing Use Cases and Flow Diagrams	03:30 PM	05:00 PM	1.5h
Feasibility Study	Conducting feasibility analysis	01:00 PM	02:00 PM	1h

2. Development Phase Timesheet

Tasks	Actions	Start Time	End Time	Duration
Requirement Clarification	Explaining business requirements to developers	09:00 AM	11:00 AM	2h
Review	Analyzing prototypes and wireframes	11:00 AM	01:00 PM	2h
Conflict Resolution	Conducting meetings to resolve requirement conflicts	02:00 PM	03:30 PM	1.5h
Documentation	Updating BRD and FSD based on feedback	03:30 PM	05:00 PM	1.5h
Validation	Reviewing system design with stakeholders	01:00 PM	02:00 PM	1h

3. Testing Phase Timesheet

Tasks	Actions	Start Time	End Time	Duration
Test Case Review	Reviewing test cases for functional validation	09:00 AM	11:00 AM	2h
Business Support	Assisting testers in understanding business logic	11:00 AM	01:00 PM	2h
Defect Tracking	Analyzing defects and business impact	02:00 PM	03:30 PM	1.5h
Documentation	Updating requirements based on test results	03:30 PM	05:00 PM	1.5h
Regression Testing	Conducting regression test reviews	01:00 PM	02:00 PM	1h

4. UAT (User Acceptance Testing) Timesheet

Tasks	Actions	Start Time	End Time	Duration
UAT Coordination	Organizing UAT sessions with end users	09:00 AM	11:00 AM	2h
Feedback Collection	Gathering and consolidating UAT issues	11:00 AM	01:00 PM	2h
Test Execution	Assisting users in executing test scenarios	02:00 PM	03:30 PM	1.5h
Reporting	Reviewing and signing off UAT reports	03:30 PM	05:00 PM	1.5h
Requirement Adjustment	Addressing final business requirement changes	01:00 PM	02:00 PM	1h

5. Deployment & Implementation Phase Timesheet

Tasks	Actions	Start Time	End Time	Duration
Go-Live Support	Supporting go-live activities	09:00 AM	11:00 AM	2h
Performance Monitoring	Monitoring system post-deployment	11:00 AM	01:00 PM	2h
Training	Conducting training sessions for end users	02:00 PM	03:30 PM	1.5h
Documentation	Preparing lessons learned & project closure report	03:30 PM	05:00 PM	1.5h
Maintenance Planning	Coordinating with operations for future support	01:00 PM	02:00 PM	1h
