**Online Agriculture Products Store**

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

**Answer 1** - Below are the Business Process Model for Online Agriculture Store

**Goal:** To maximize customer reach at the optimal time, enhancing sales and profitability for the agricultural products business.

**Inputs:** Developers, Raw materials /tie ups with companies for raw materials, Delivery boys to deliver purchased products, admin to manage the flow of products and orders. High quality photos/ images/videos of the products, product specifications, brands, prices. Checkout page, shopping cart, payments options, delivery details.

Project Name: Online Agriculture Product Store

Question 1 – BPM - 2 Marks

Identify Business Process Model for Online Agriculture Store – (Goal, Inputs, Resources, Outputs,

Activities, Value created to the end Customer)

Ansa:

Below are the Business Process Model for Online Agriculture Store:

Goal: To reach maximum customers at the right time to increase sales and profitability of the

Business of Agricultural products.

Inputs: Developers, Raw materials /tie ups with companies for raw materials, Delivery boys to deliver

Purchased products, admin to manage the flow of products and orders. High quality photos/ images/

Videos of the products, product specifications, brands, prices. Checkout page, shopping cart,

Payments options, delivery details.

**Resources**: Internet/ Wi-Fi, mobile, laptop, tabs, users, farmers, agricultural products, marketing team, testing team, development team, funds, manpower.

**Outputs:** An online agricultural product store designed to be user-friendly, catering to new users and enabling farmers to conveniently purchase seeds, pesticides, and fertilizers from anywhere with internet access.

**Activities:**

* **Product Details:** Accept product information and display it on the website for farmers.
* **Browsing and Search:** Allow farmers to search for specific models, brands, or items.
* **Product Selection:** Enable users to select products, add them to the cart, and proceed to checkout.
* **Payment Process:** Facilitate secure payments by buyers and confirm the transaction via email, text, or WhatsApp.
* **Delivery:** Ensure prompt delivery of products to farmers.
* **Returns and Exchanges:** Offer the option to return or exchange items if they are unsatisfactory or no longer needed.
* **Refunds:** Process reverse payments to the original payment method or wallet for returned items.

**Value:** Designed for end customers, the platform enables remote area farmers to easily access agricultural products and directly connect with manufacturers, sellers, or dealers. It offers a convenient online shopping experience, saving both time and travel costs.

alue created to the end customer: Remote area farmers can easily get agriculture products & can

communicate directly with product manufacturers/sellers/dealers etc. It will be convenient for

customers to buy online, and they can save time and travelling cost

**Question 2 – SWOT - 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 –** Below is the SWOT Analysis

**Strength:** Procuring farming products manually while living in remote areas can be challenging. This challenge becomes a strength for driving the online business. The new app will accept product details from manufacturers and display them to farmers. Farmers can browse through the available products, select what they need, place purchase requests, and have the items delivered to their location.

**Weakness:** If this app is launched in the market, there is a potential threat of competitors introducing similar apps. To address this, it is crucial to maintain a strong brand identity, ensure consistent quality and standards of our products, and focus on sustaining healthy business turnover.

**Opportunity:** The app will create new opportunities for increased sales of farming products. It will cater not only to remote farmers but also to anyone who can place orders from the store 24/7. This feature will boost sales for sellers and encourage them to introduce better products. Sellers can also promote new product launches, offers, and discounts through advertisements. For customers, the platform offers the convenience of online shopping, saving both time and travel expenses.

**Threats**

**Threats:** There are different factors which can be threats to the business. Some examples are below.

* Ensuring timely delivery to remote areas.
* Recruiting delivery personnel willing to travel and deliver in remote locations.
* Potential demands for higher pay or additional allowances, such as fuel and incentives, from delivery staff.
* Limited tech-savviness among some farmers, which may hinder their ability to use the app effectively.
* External challenges in remote areas, such as inconsistent electricity or internet connectivity, which may impact the ordering process.

**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 3** - The feasibility study aims to address the critical question: "Should we move forward with the proposed idea?" It evaluates the viability of undertaking the project within specific constraints, such as technology, budget, and time. Key areas of focus include:

* **Technical Feasibility:** Assessment of hardware and software requirements, use of existing or new technologies, and availability of trained manpower.
* **Financial Feasibility:** Evaluation of initial investment needs, funding sources like banks, investors, or venture capitalists, and the ability to secure capital.
* **Market Feasibility:** Analysis of the industry type, existing competitors, product quality, demand, supply, usage trends, and ensuring timely delivery of products.
* **Organizational Feasibility:** Review of the available talent pool and ensuring access to permanent resources within 18 months, with an estimated cost of ₹2 crore.

**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 4** – Below is the GAP Analysis

**AS IS PROCESS**: Stakeholders Peter, Kevin, and Ben are facing challenges in obtaining essential agricultural products such as fertilizers, seeds, pesticides, and other necessary items for farming.

**TO BE PROCESS:** To eliminate the need for manual purchasing of agricultural products, Mr. Henry decided to create an online agriculture product store. It will serve as a centralized platform connecting remote farmers with commercial product suppliers and sellers, accessible anytime and anywhere. This will streamline the process of sourcing fresh produce for buyers while providing farmers with reliable markets and efficient, fast payment options

**GAP** – The current payment method may lead to procedural inefficiencies, such as delays in settling payments to merchants. To address these issues, integrating mobile money services into the platform is essential. Additionally, other challenges like delays in product delivery, difficulty in sourcing manpower for remote areas, and product shortages after an order is placed need to be addressed.

**Outcome** - Reduced wastage, improved income of sellers/dealers, increased productivity of farmers, convenient method, time saving, more employment of delivery boys/packers etc.

**Question 5 – Risk Analysis - List down different risk factors that may be involved (BA Risks And process/Project Risks)**

**Answer 5** – Below are the different risk factor involved

* **Logistics:** The online platform will require a robust logistics network to facilitate the physical movement of ordered products. Any gaps or inefficiencies in the logistics infrastructure could lead to increased costs for the business and hinder the expansion into new regions.
* **Payment Process:** The current payment process introduces procedural inefficiencies, such as delays in settling payments to sellers and dealers. To overcome these challenges, businesses should explore methods that allow merchants to receive instant payments directly.
* **Market Risks:** These businesses face several risks in local markets, so it’s important to establish partnerships with organic merchants who already have stock of agricultural products. This will help meet demand without disruptions.
* **Product Storage:** Proper storage of products must be ensured, with regular checks and monitoring of warehouses to prevent pests and rodents from damaging goods.
* **Delivery:** Product delivery will require manpower willing to travel to remote areas regardless of weather conditions. A well-structured pay scale is necessary, which may increase the overall cost of the business but ensure smooth operations.

**Question 6 – Stakeholder Analysis (RACI Matrix) - Perform stakeholder analysis (RACI Matrix) to find out the key stakeholders who can take Decisions and who the influencers are**

**Answer 6 –**

Below is the list of Stakeholders.

**Project Stakeholders**

* Business Analyst – Mr Rohit Sarnaik
* Delivery Head – Mr Karthik
* Project Manager – Mr Vanadanam
* Development Team – MS Juhi, Mr Teyson, Ms Lucie, Mr Tucker, Mr Bravo
* Testing Team - Mr Jason and Ms Alekya
* Network Admin - Mr Mike
* DB Admin is John.

**Business Stakeholder**

* Business Sponsor – Mr Henry
* Influencers – Mr Peter, Mr Kevin and Mr Ben.
* Finance Team – Mr Pandu
* Project Team – Mr Doku

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **Responsible (R)** | **Accountable (A)** | **Supporting****(S)** | **Consulted****(C)** | **Informed****(I)** |
| Mr Henry | CEO |  |  |  | Yes | Yes |
| Mr Rohit Sarnaik | Business Analyst | Yes |  |  |  |  |
| Mr Pandu | Financial Head |  |  | Yes |  |  |
| Mr Doku | Project Coordinator |  |  | Yes |  |  |
| Mr Karthik | Delivery Head |  | Yes |  |  |  |
| Mr Vandanam | Project Manager |  | Yes |  |  |  |
| Mr Kevin | Friends |  |  |  | Yes | Yes |
| Mr Ben | Friends |  |  |  | Yes | Yes |
| Mr Peter | Friends |  |  |  | Yes | Yes |

**Question 7 – Business Case Document - Help Mr Karthik to prepare a business case document**

**Answer 7 -**

|  |  |
| --- | --- |
| **Sr. No** | **Questions** |
| **1** | **Why is this project initiated?** |
|  | Mr. Henry recognized the need for farmers to have agricultural products delivered to their doorstep and saw this as a valuable opportunity to seize and capitalize on. |
| **2** | **What are the current Problems** |
|  | Difficulties in procuring fertilizers which are very important for farm. Buyingseeds for farming certain crops and lack of pesticides which could help ingreatly reducing pests in cropChallenges in sourcing essential fertilizers for farming, the difficulty in purchasing seeds for specific crops, and a shortage of pesticides that are crucial for minimizing pest infestations in crops. |
| **3** | **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 |
| **4** | **What are the resources required?** |
|  | **Financial Resources:** Banks, investors, and other funding sources.**Manpower:** Packers, delivery personnel.**Developers and Testers:** To build and test the project.**Sellers/Dealers:** For partnerships to sell products online. |
| **5** | **How many organizational changes is required to adopt this technology?** |
|  | No Change required as such |
| **6** | **What is the time frame to recover ROI?** |
|  | 6 Months |
| **7** | **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 |

ollowing are the high-level scope for this engagement:

•Requirement Study

•Design

•Testing

•Developmen

Following are the high-level scope for this engagement:

* Requirement Study
* Design
* Testing
* Development

**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 8 –**

1. **Sequential – waterfall**

Waterfall is broken down into phases, and other modern methodologies can even pull from these phases and utilize them, these phases are:

* Requirement Analysis
* Planning
* Architectural Design
* Software Development
* Testing
* Deployment
* Maintenance

According to the Waterfall method, the software development process follows all SDLC phases in a linear, sequential manner, with no overlap between stages. Each phase can only begin after the previous one is fully completed. Teams, including business analysts, architects, developers, testers, operations, etc., work within their own distinct divisions. Once the architecture, data structures, and functional designs are finalized, the development team starts coding the software. Integration and validation occur only after all code has been written, meaning that testing is not performed during development, and only unit tests are executed. The software is then tested and deployed in production for the first time, where users conduct real-time testing. The Waterfall method can be a lengthy process, often taking several months or even years. If the software doesn’t meet user expectations, making changes can be slow, costly, and in some cases, defects may remain unaddressed. Due to the lack of feedback from customers and stakeholders during design and development, it’s common for Waterfall teams to build unnecessary or under-utilized features, leading to wasted time, effort, and capital.

1. **The Iterative Model – Rational Unified process**

The Iterative methodology served as an early foundation for Agile. It focuses on building, refining, and improving a project or product over time. In the Iterative Model, only the major requirements are initially known. Based on these, the development team creates a quick and cost-effective first version of the software. As additional requirements emerge, further iterations of the software are designed and developed. Each iteration goes through all phases of the SDLC, with multiple cycles repeating until the project is complete. It is common for the team to work on several SDLC phases simultaneously.

1. **Evolutionary - Spiral Model**

The Spiral Model of Software Development and Enhancement functions as a meta-model, assessing the specific risk profile of a project before recommending a tailored approach that incorporates elements of other popular methodologies, such as Iterative and Waterfall. It moves away from a one-size-fits-all process model, emphasizing flexibility based on the unique requirements of each project.

1. **Agile**

Agile is the dominant methodology in modern software development, extending its reach beyond coding to various aspects of product development, from ideation to the customer experience. Agile divides projects into multiple cycles, each encompassing some or all phases of the SDLC. The emphasis is on people and how they collaborate to complete the project. Agile promotes continuous collaboration between team members and stakeholders, with regular cycles of feedback and iteration.

The Agile Manifesto’s 4 Core 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

**Agile Roles**

Agile roles assign responsibilities to team members, which differ from traditional positions as a single person may take on multiple agile roles depending on the project’s scope, and multiple individuals can share the same role. Here are some key roles in an agile project:

**Product Owner** – The Product Owner defines the product vision based on gathered insights, feedback, and ideas. They are responsible for managing product requirements and work closely with the development team to communicate the vision through User Stories. User Stories typically include a name, description, references to external documents, and guidelines for testing. Product Owners often maintain a backlog of User Stories if there are too many to be worked on simultaneously.

**Scrum Master** – The Scrum Master ensures the team adheres to agile principles, values, and processes.

**Team Member** – All development team members contribute their distinct skills and collaborate to build functional software. This includes roles such as Developers, QA Engineers, Business Analysts, Database Engineers, and others, depending on the project’s requirements.

**Advantages of Agile Methodology**

* Deliver software well-tailored to the understanding of customer demands.
* Software is deployed more quickly and improved more regularly.
* Better code hygiene including style, readability, and structuring.
* Flexible and adaptable process enables pivots or changes mid-project.
* Doesn’t require a complete list of requirements upfront.
* Makes room to act on organizational learning as the project progresses. Transparency and continuous communication with involved stakeholders.

**Agile Frameworks**

Organizations can choose to adopt a single agile framework or combine elements from multiple frameworks to best fit the needs of the project and the characteristics of the team. Scrum is one of the most popular agile frameworks, known for its focus on continuous collaboration, frequent deliveries, and short development cycles called “Sprints.” Scrum includes the following key checkpoints:

**Planning Meetings** – During these meetings, the team identifies and prioritizes the Sprint goals.
**Commitment Meetings** – Here, the team reviews the backlog of User Stories to assess the effort required and determine what can be completed in the upcoming Sprint.
**Daily Stand-up Meetings** – Short meetings where each team member provides updates on story status, blockers, and any concerns to ensure everyone stays aligned.
**Demo Meetings** – Held at the end of each Sprint, these meetings showcase the functionalities developed during the Sprint to the Product Owner.
**Retrospective Meetings** – Conducted at the end of each Sprint to discuss lessons learned, what went well, and areas for improvement.

Scrum introduces the role of the Scrum Master, whose responsibility is to manage and enhance processes, ensure the team adheres to Agile values, and focus on maximizing productivity. A good Scrum Master ensures that processes and progress are transparent to all stakeholders.

**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.**

**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** - As a Business Analyst, I would choose the Waterfall methodology because it is a straightforward and easy-to-understand model. The process is divided into distinct phases, with each phase completed before moving on to the next. The first phase involves requirement gathering and analysis, which are then documented in the Software Requirement Specification (SRS). The second phase is the system design phase, where the software architecture is designed. Following this is the implementation phase, where small units of code are developed and combined to form the complete system. In the integration and testing phase, the system is thoroughly tested. Once testing is complete, the software is deployed to the market. Activities like software maintenance and the addition of new features fall under the deployment and maintenance phase.

**Question 10 – Waterfall Vs V-Model - Write down the differences between waterfall model and V model.**

**Answer 10 -**

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| **Waterfall Vs V-Model** |
| **Sr. No** | **Waterfall** | **V Model** |
| 1 | The waterfall model is a relatively linear sequential design approach to develop 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 | Divided into distinct, sequential phases (Requirement, Design, Implementation, Testing, Deployment, and Maintenance). | Phases are also sequential but with corresponding testing phases (Verification and Validation) that match each development phase. |
| 3 | The waterfall model is a continuous process | The V model is a simultaneous process |
| 4 | In waterfall model, the total defects in the developed software are higher | In v model, the total defects in the developed software are lower. |
| 5 | Testing begins only after development is complete. | Testing is done alongside each development phase, ensuring early verification and validation. |
| 6 | Not flexible, as changes are difficult to accommodate once the project is underway. | More flexible than Waterfall, but still relatively rigid. Changes require adjustments to previous phases. |
| 7 | Suitable for projects where requirements are well-defined and unlikely to change, such as manufacturing or large-scale infrastructure. | Suitable for projects where testing is critical and requirements are clearly defined but subject to some iteration. |
| 8 | Risks are identified late, typically during testing. | Risks are addressed early, as testing is done alongside development, improving defect detection early. |

**Question 11 – Justify your choice As a BA, state your reason for choosing one model for this project**

**Answer 11 –**

As a BA, I would choose the Waterfall methodology.
The Waterfall model is a straightforward and simple approach that is easy to understand. The process is divided into distinct phases, where each phase must be completed before progressing to the next.
The first phase is requirement gathering and analysis, which involves documenting the requirements in the Software Requirement Specification (SRS).
The second phase is the system design phase, focused on designing the overall software architecture.
Next is the implementation phase, where small units of code are developed and combined to create the complete system, followed by testing in the integration and testing phase. Once testing is complete, the software is released to the market.
Maintenance and the addition of new features fall under the deployment and maintenance phase.
This model is well-suited for small projects and when requirements are clear and well-defined.

**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 12 -**

Client wants to Finish this project in the Span of 2 Years so accordingly Making a Project Gantt Chart

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month** | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** |
| **Requirement Gathering** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Requirement Analysis** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Design** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Development 1** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Test Cases & Test Plan 1** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **QA Testing 1** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Development 2** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Test Cases & Test Plan 2** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **QA Testing 2** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **Development 3** |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| **Test Cases & Test Plan 3** |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |
| **QA Testing 3** |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |
| **Development 4** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |
| **Test Cases & Test Plan 4** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |
| **QA Testing 4** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |
| **UAT** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |
| **UAT Sign Off** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |
| **Production Deployment** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| **Training** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Question 13 – Fixed Bid Vs Billing - Explain the difference between Fixed Bid and Billing projects**

**Answer 13 –**

Fixed Bid: The Requirements are frozen at the start of the project and estimates are made based on

those requirements. The Resource estimation for the entire project is done beforehand. Based on

the project requirement the number of resources required at each stage is decided. The cost of

developing the entire product is estimated once the requirements are discussed. Cost can increase or

decrease when a change is introduced, each change would involve a plan realignment. In a few cases,

iterations are introduced to improve software quality. Each stage is executed with defined timelines.

A change cannot be accommodated here. Some organizations initially agree on the price of each

Change that will be introduced, and a Change Request is created for it to be executed. The timelines

for the development of the entire software are predefined and the development firm should adhere

to it as it is contractually bound

**Fixed Bid:** Requirements are finalized at the beginning of the project, and estimates are made based on these fixed requirements. Resource estimation for the entire project is done in advance, with the number of resources required at each stage determined based on the project’s needs. The cost of developing the entire product is estimated once the requirements are established. Any changes introduced can lead to adjustments in cost, and each change necessitates a realignment of the plan. In some cases, iterations may be introduced to enhance software quality. Each stage follows predefined timelines, and changes cannot be accommodated once the project has started. Some organizations may agree on a fixed price for each change upfront, creating a Change Request process for any modifications. The timelines for software development are predefined, and the development firm is contractually bound to adhere to them.

software development. The resource requirements vary based on the user stories and changes

introduced. Budget may increase in case of a complex feature-intensive delivery and can reduce

when the changes are simple. Work is estimated, based on the resources required to develop each

User Story. The combination of these deliverables can be used for the budget estimation. Hence, as

each User Story is taken up, (parallelly or sequentially) the resources and utilities on each can be

defined. Here change requests can be easily accommodated. Resources and timelines are flexible

and can be adjusted based on the revised course. Timelines for individual iterations are defined. The

timelines for delivery are defined considering no dynamic changes in the requirements

**Billing:** Requirements are defined at the start, but they may evolve during the software development process. Resource requirements fluctuate based on user stories and any changes introduced. The budget may increase for complex, feature-intensive deliveries and decrease for simpler changes. Work is estimated based on the resources needed to develop each User Story. The combination of these deliverables forms the basis for budget estimation. As each User Story is worked on—whether in parallel or sequentially—the required resources and timelines can be defined. Change requests can be easily accommodated, and resources and timelines remain flexible, allowing adjustments based on the evolving course. Timelines for individual iterations are clearly defined, with delivery schedules based on stable requirements and no dynamic changes expected.

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

* **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 14**

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| **Design Phase** |
| **Sr. No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Identify stakeholders | To develop project plan with stakeholders | 9.00 AM | 10.00 AM | 1 Hour |
| 2 | Planning of stakeholder engagements | Stakeholder Engagement section of the Project Plan | 10.30 AM | 1.00 PM | 2.5 Hours |
| 3 | Defining project outcome | Monitoring success of project | 1.00 PM | 2.00 PM | 1 Hour |
| 4 | Planning project timeline and cost | Calculate the budget and costing of project | 3.00 PM | 4.00 PM | 1 Hour |
| 5 | Planning risk management of project/Informing stakeholders of project plan | Discussion on the day inputs and informing respective stakeholder | 4.00 AM | 6.30 AM | 2.5 Hour |
| **Total** | **8 Hours** |

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| **Development Phase** |
| **Sr. No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Develop a project charter | outline project constraints, goals, roles and responsibilities of all stakeholders involved, budget, the expected timeline | 9.00 AM | 10.00 AM | 1 Hour |
| 2 | Project planning | creating plan to allocate tasks to each team members | 10.30 AM | 1.00 PM | 2.5 Hours |
| 3 | Execution of Project plan | meeting with project manager to ensure deliverables are being worked upon | 1.00 PM | 2.00 PM | 1 Hour |
| 4 | Controlling/quality assurance | meeting with project development team | 3.00 PM | 4.00 PM | 1 Hour |
| 5 | Closure | collecting feedback from stakeholders | 4.00 AM | 6.30 AM | 2.5 Hour |
| **Total** | **8 Hours** |

|  |
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| **Testing Phase** |
| **Sr. No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Requirement Analysis | Meeting with testers to check on possible outcome | 9.00 AM | 10.00 AM | 1 Hour |
| 2 | Test Planning | zoom call with testers to review testing scenarios | 10.30 AM | 1.00 PM | 2.5 Hours |
| 3 | Test case development | In person discussion with QA to discuss on the details such as automation code, where to store the automation code and who will need access to it, | 1.00 PM | 2.00 PM | 1 Hour |
| 4 | Test environment setup | Meeting with QA team to identify where the tests will run | 3.00 PM | 4.00 PM | 1 Hour |
| 5 | Test execution & Test reporting | Meeting QA, testers OR stakeholders to check if the application works as expected | 4.00 AM | 6.30 AM | 2.5 Hour |
| **Total** | **8 Hours** |

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| **UAT Phase** |
| **Sr. No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Designing UAT schedule | Designing the UAT schedule  | 9.00 AM | 10.00 AM | 1 Hour |
| 2 | Executing test cases | Executing all the test cases required for UAT phase | 10.30 AM | 1.00 PM | 2.5 Hours |
| 3 | Logging defects | Logging all the defecting found during UAT | 1.00 PM | 2.00 PM | 1 Hour |
| 4 | Reviewing test results | Reviewing all the test result | 3.00 PM | 4.00 PM | 1 Hour |
| 5 | User Acceptance Testing phase | Meeting the stakeholders to check if the application works as expected | 4.00 AM | 6.30 AM | 2.5 Hour |
| **Total** | **8 Hours** |

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| **Deployment and Implementation Phase** |
| **Sr. No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | User Training | User training to all the end users  | 9.00 AM | 10.00 AM | 1 Hour |
| 2 | Data Migration | Migration of the data on production environment | 10.30 AM | 1.00 PM | 2.5 Hours |
| 3 | Monitoring system performance | Monitoring all the system performance which can relate to slowness | 1.00 PM | 2.00 PM | 1 Hour |
| 4 | Testing in Production environment | Testing of all scenarios in production database | 3.00 PM | 4.00 PM | 1 Hour |
| 5 | Post Implementation procedures and gathering feedback | Gathering the feedback from client and checking on post implementation procedures | 4.00 AM | 6.30 AM | 2.5 Hour |
| **Total** | **8 Hours** |

Finance team - Mr Pandu Project Team - Mr DokunInfluencers - Peter, Kevin and B

Project Team - Mr Doku