Q1. Identify Business Process Model for Online Agriculture Store.

Ans: 1) Goal - is to develop application for online agriculture products store.

2) Input - Import and export of the agriculture products like Fertilizers, seeds and pesticides.

3) Resources –PM, Java developers, network admin team, DB admin, Tester, BA.

4) Output- Online agriculture products store application.

5) Activities – Requirements gathering, business analysis, feasibility analysis, develop application, testing and deployment.

6) Value created to the end Customer- customer will get user friendly application, product home delivery, can check product information and customer can connect directly to the manufacture company.

Q2. Mr Karthik is doing SWOT analysis before he accepts this project?

Ans: SWOT analysis as per below

Strengths:

* Direct communication between Farmers and Companies.
* User friendly application anyone can use.
* New in the Market

Weaknesses:

* Lack of information and awareness about application

Opportunities:

* Space to fill in the market.
* Increase supply to satisfy growing demand

Treats:

* Failure in the communication strategy towards the consumer

Q3. Feasibility study

Ans : After analysing all the concept related to economic, financial and technical that the project is feasible. We have all resources and technologies, budget which is required to complete the project.

Resources: Java developer, tester, PM, network admin, DB admin & BA.

Q4. Gap Analysis.

Ans: Current state- 1) Facing issues while buying the products.

 2) No local store to buy agricultural products in a village.

 Desire state – 1) customer can buy products online

 2) Customer can directly connect to the manufacturing co. for their problems.

 3) Increase supply to satisfy growing demand

Q5. Risk Analysis

Ans: Risk Analysis in Business Analysis (BA) is the process of identifying, assessing, and mitigating risks that could impact a business or a project. It helps in making informed decisions and ensuring project success. Every project will have different risk analysis.

Types of Risks in BA are:

* Business risks- Market fluctuations, competition, changing regulations.
* Project risks- Scope creep, missed deadlines, budget overruns
* Technical risks- Technology failures, integration issues.
* Operational risks- Process inefficiencies, human errors.

Steps in Risk Analysis:

* Identify risks-Recognizing potential risks in business processes, project execution, or system implementation.
* Analyse risks-Evaluating the likelihood and impact of each risk (low, medium, high).
* Prioritise risks-Focusing on critical risks that could cause major disruptions.
* Develop mitigation strategies-Planning ways to reduce, control, or transfer risks.
* Monitor and review-Continuously tracking risks and updating strategies as needed.

Below are the points can occur in the project.

(internally)

1. Payment frauds
2. Consumer disputes
3. Poor authentication methods
4. Low profile margin
5. Online security breach
6. Change in requirements

(externally) Impact on - Cost, Time, Scope, and Quality

Q6. Stakeholder Analysis

Ans: RACI matrix as per below

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | Mr Vandanam | Ms. Juhi | Mr Mike | Mr John | Mr Jason | Archana |
| Position | Project Manager | Sr Java Developer | Network Admin | DB Admin | Testers | BA |
| Tasks |   |   |  |  |  |  |
| RG | \*/A |   |   |   |   | R |
| RA | \*/A |   |   |   |   | R |
| Design | \* | R | I | A |   | \*/A |
| Testing | \* | I | I |   | R | A |

Q7. Business Case Document

Ans: business case documents as per below

|  |  |
| --- | --- |
| Project Name | Online Agriculture products store |
| Project initiated | This project is initiated to solve the farmers issues by developing application for online agriculture products, as farmers are facing difficulties in procuring fertilizers, buying seeds & lack of knowledge pesticides. |
| Current problems | Farmers are facing difficulties in procuring fertilizers, buying seeds & lack of knowledge pesticides, due these problems they are able to make to good profit out of it. And no local store is available for buying the agricluture products |
| How many problems could be resolved | All problems can be resolved by developing the application and they can sales their crops as well |
| Resources requiredTime Frame to recover ROI | Developer Team, Admin Team, Network Team, Tester, designer teamTime frame to recover ROI is more than 18 months. |

Q8. Four SDLC Methodologies.

Ans- SDLC stands for software development life cycle it is a continuous process, which starts from the moment when it is made a decision to launch the project and it ends at the moment of its full remove from the exploitation. According to IT company what process is to be follows to develop particular project that is defined through SDLC (Software Development Life Cycle). SDLC can be understand by Methodologies and Models.

* Methodology- means a set of guidelines

1. Sequential**:** Sequential methodology, often referred to as the Waterfall model, is one of the earliest and most straightforward approaches to software development. In this methodology, the software development process is divided into distinct phases, and each phase must be completed before moving on to the next. This linear progression makes it easy to understand and manage, but it also has its limitations.

**2.Iterative:** Iterative methodology is a software development approach that emphasizes the repetition of phases in the Software Development Life Cycle (SDLC). Unlike the sequential (Waterfall) model, which follows a linear progression, the iterative methodology allows for the development process to be revisited and refined through multiple cycles or iterations. This approach is particularly useful in accommodating changes and improving the software based on feedback and testing.

**3. Evolutionary:** Evolutionary methodology is a software development approach that focuses on the gradual development and refinement of software through iterative cycles. This methodology emphasizes the idea that software can evolve over time based on user feedback, changing requirements, and technological advancements. It is particularly useful in environments where requirements are not fully known at the beginning of the project and are expected to change as the project progresses.

4. Agile: Agile methodology is a modern approach to software development that emphasizes flexibility, collaboration, and customer satisfaction. It is designed to accommodate changing requirements and deliver functional software in short, iterative cycles. Agile methodologies prioritize individuals and interactions over processes and tools, and they focus on delivering working software frequently, with a preference for shorter timescales.

Q9. Waterfall RUP Spiral and Scrum Models

Ans: a) waterfall model: Waterfall is a breakdown of the project activities into linear sequential phases where each phase depends on the deliverables of the previous one and corresponds to a specialization of the tasks. It works like below sequence

Requirements

Gathering

 System design

 Implementation

and unit testing

 Implementation and

system testing

 operation and Maintenance

1. RUP model: rational unified process is for object oriented models. It is an agile software development method, in which the life cycle of a project or the development of software is divided into four phases, there are various activities take place during these phases like modelling, analysis and design, implementation, testing and application. four phases are

Inception phase, elaboration phase, construction phase, transition phase.

1. Spiral model: spiral model is a risk driven software process model, it is based on the unique risk pattern of a given project, spiral model guides a team to adapt elements of one or more process models such as incremental, waterfall, or evolutionary prototyping.
2. Scrum model: this model suggests that projects progress via a series of sprints. In keeping with an agile methodology, sprints are timeboxed to no more that a long, most commonly two weeks. The scrum model sees daily scrums as a way to synchronize the work of team members as they discuss the work of the sprint.

Q10. Waterfall Vs V-Model

Ans- Difference between waterfall and v-model is that waterfall model the software testing is done after the completion of the development phase while in v-model each phase in the development cycle has a directly associated testing phase.

V-Model is the most important model that is used in the process of software testing. It is also known as verification and validation model. V-model is a sequential process in which the next phase begins only after the completion of the present phase. In this model, steps don’t move in a linear way while the steps are bent upwards.

It is similar to waterfall model because we follow v-model from left to right as well as follow a sequential path of execution of processes like as in waterfall model steps are followed as requirements, design, implementation, verification and finally maintenance. In the same waythe same steps are followed in v-model.

Q11. state your reason for choosing one model for this project

Ans: As a BA will choose waterfall model to develop the project, reason for choosing the waterfall model is that it is simple and easy to understand and use. It is easy to manage due to the rigidity and a review process. In this model phases are processed and completed one at a time. Phases do not overlap.

Question 12 – Gantt Chart

Q13. Fixed Bid Vs Billing.

Ans:

* Fixed Bid: A fixed bid project is one in which the service provider agrees to deliver a specific scope of work for a fixed price. The scope of work, deliverables, and timeline are agreed upon upfront, and the service provider assumes the risk for any cost overruns or delays.
* Billing: A billing project is one in which the service bills the client for the actual time and materials expanded on the project. The client pays for the service provider’s time and expenses, and the scope of the work can be adjusted as needed throughout the project.

Q.14-20. Timesheets sample

Ans: Timesheets as per below

|  |
| --- |
| Requirement Gathering |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | **RG** |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 | 2 Hrs |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 | 2 hrs |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
|   |   |   |   |
|   | Total Hours of RG | 8 Hrs |   |
|  |  |  |  |

|  |
| --- |
| Requirement Analysis |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | **RA** |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 | 3 Hrs |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 | 3 hrs |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
|   |   |   |   |
|   | Total Hours Of RA | 12 Hrs |   |

|  |
| --- |
| Designing |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | Designing |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 | 3 Hrs |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 | 3 hrs |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 | 4 Hrs |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
|   |   |   |   |
|   | Total Hours OF Designing | 18 Hrs |   |

|  |
| --- |
| Development |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | **Development** |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 |   |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 | 4 Hrs |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 | 5 Hrs |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 | 5 Hrs |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
|   |   |   |   |
|   | Total Hours of Development | 22 Hrs |   |

|  |
| --- |
| Testing |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | **Testing** |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 |   |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 | 1 Hrs |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
|   |   |   |   |
|   | Total Hours | 7 Hrs |   |

|  |
| --- |
| UAT |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | UAT |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 |   |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 | 3 Hrs |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 | 1 Hrs |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 | 1 hrs |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 | 2 Hrs |
|   |   |   |   |
|   | Total Hours | 9 Hrs |   |

|  |
| --- |
| Development and Implementation |
| **Time card** |  |
| **employee Name** |  |
| **Date( Enter 1st of period only)** | **Time In (HH:MM)** | **Time Out (HH:MM)** | D & I |
| 27-12-2021 | AM 9:00:00 | PM 6:00:00 |   |
| 28-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 29-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 30-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 31-12-2021 | AM 9:00:00 | PM 5:00:00 |   |
| 03-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 04-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 05-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 06-01-2022 | AM 9:00:00 | PM 5:00:00 |   |
| 07-01-2022 | AM 9:00:00 | PM 5:00:00 | 4 Hrs |
|   |   |   |   |
|   | Total Hours of D & I | 4 Hrs |   |