**Question 1 – BPM**

GOAL: Facilitate remote area farmers to buy the agriculture products online.

INPUTS: Farmers data and manufacturer data

RESOURCES: Online applications, products, internet connection.

OUTPUT: Market expansion,Revenue, easy to access to buy , timely delivery.

ACTIVITIES: Service to farmers, Support to them, training for using application.

VALUE CREATED TO THE END CUSTOMER: User friendly , farmers trust, empowerment (to educate the farmers ) customers satisfaction, growth of the applications and also easier to farmers to grow their crops.

**Question 2 – SWOT**

STRENGTH : Budgets, Mission to help farmers,Team support , experienced in delivery.

WEAKNESS: Managing customers/farmers, App management like without any glitches app should work, lack of experience in agriculture may be a weakness.

OPPORTUNITY: Market expansion, profession growth for APT sollutions.

THREAT: Change in requirement of farmers, technical challenges, there may be competitors.

**Question 3 – Feasibility study**

TECHNOLOGY: Based on Ecommerce platform to create an online store through mobile application, payment gateway for secure transactions.

HARDWARE: Network for smooth flow of the app and backup system for data backup

SOFTWARE: Data base and security software data base for storing the date and security backup is to secure payment gateway.

TRAINED RESOURCES: Java developers for skilled team to handle the projects, system admins for server ,Designers for creating the app to use it easily to the famers.

Budgets: Alocate the budget for developing the apps,also for maintaining and for additional resources also.

TIME FRAME: Have to allocate the time as per the given periods so that they can complete it by 18 month like project phase ,any milestones , and final deadlines.

**Question 4 – Gap Analysis**

AS -IS:

Farmers /sellers are manually tracking the quanties of the product sold or the quantities of the product purchased.

Farmers are buying the products offline like going to the local store and purchase.

Order may be placed over phones also may got delayed if they forget that order is placed

Lack of service may happen for eg :if the customers /farmers are not happy with the products there may not be the chance of solving the querry as it is offline store.

TO-BE:

By ordering the products from the online there will be the record that how much is purchased and how much is sold

Farmers need not go to local store for buying same will be delivered ti their home step

There won’t be any question of getting delayed as here there will be system tracking

If the farmers are not ok with the products, they can raise a complaint in the website stating the issued they faced and the same will be resolved.

Question 5 – Risk Analysis -

INTERNAL RISK: Lack of knowledge for the reources may be the internal risk .Employee turnover – if the employee leave the organisation in the middle of the project may effect the project. Insufficient trainig for the staff or new users may cause delay in the project

EXTERNAL RISK: Changes in the agriculture market or changes in the customer requirement like change in demand or preferences. Raising costs may effect the project budgets.Competative company may effect the project.

BA RISK: If BA fails to fully understand the requirement of the project then there may be issues. Changes in the project scope without evaluation it can effect the project and budget. If the requirement are not fully documented then that may impact overall project success.In the project there may be many stakeholders different opinion of each members leads to delay in the projects.

PROJECT RISK : Technical issues challenges like system bugs. As most of the farmers are not education all the farmers may not believe in the website. As all the farmers do not use the latest technology like smart phones or laptop and also internet connectivity this might effect the project. As the system store a personal data of the customer this should be kept confidential if the same is leaked then there may be the legal issue.

**Question 6 – Stakeholder Analysis (RACI Matrix)**

|  |  |
| --- | --- |
| **RACI** | **NAME AND DESIGNATION** |
| Responsible | Vidyashree – BA  Ms Juhi- Senior JAVA developer  Mr Teyson- JAVA developer  Ms Lucie- JAVA developer  Mr Tucker- JAVA developer  Mr Bravo- JAVA developer  Mr Mike -Network Admin  Mr John- DB admin  Mr Joson – Tester  Ms Alekya- Tester |
| Accountable | Mr Karthik – Delivery Head  Mr Vandanam – Project Manager |
| Consulted | Mr Pandu – Financial head  Mr Dooku – Project coordinator  Peter, Kevin, Ben – Helping committee |
| Informed | Mr Henry – Business Man |

Question 7 – Business Case Document

Why is this project initiated?

This project is initiated to address the challenges faced by farmers of the remote areas who struggles to access essentials agricultural products such as seeds pesticides etc.

What are the current problems ?

The farmers in the remote areas have the limited knowledge on the products related to agriculture, they have to go to local store for buying the products. Also they do not know about the knowledge about the quality of the products.

With this project how many problems could be solved?

This project can solve multiple problems like farmers may save their cost and time .farmers will have the easy accessibility to order the items.

What are the resources required?

There are resources as per case study like Human Resources like project manager, business analyst, testers, developers etc. Technical resources like software development tools and mobile app. Financial resources like budgets and allocation of budgets. Other resources like training for educating how to use the applications.

How much organisational change is required to adopt this technology ?

Adopting this technology will require moderate organizational change. The company will need to adjust current operation to integrate new online platform.Staff in the company need the training as there is a new technology introduced.

What is the time frame to recover ROI?

18 months that is project duration

How to identify stakeholders?

There are Primary stake holder’s Secondary stakeholders third party stake holders,

Primary stakeholders are BA, Delivery Head ,project manager, developers etc

Secondary Stakeholders are helping committee customers and manufacturers.

Third party stakeholders are suppliers, manufacturers etc

**Question 8 – Four SDLC Methodologies**

Sequential-Waterfall:

This model follows a linear and sequential approach,where each phase must be completed before going to the next phase. It has distinct stages like requirement design implementation testing and maintainence.It works best for project with well defines requirement.

Iterative – RUP

RUP (Rational unified process) is an iterative software development process that devides the project into multiple cycle. Each cycle includes plan,design ,code and testing allowing incremental improvements. It emphasizes the importance of addressing risks early and continuously refining the project. It is flexible and adapts to changing requirements throughout the projects.

Evolutionary-Spiral:

The spiral model combines iterative and waterfall model. It focus on risk and minimizes the risk by building prototypes in the series of loops, or spiral each spiral consists of planning risk analysis ,engineering and evaluation. It is suitable for large project with high risk.

Agile- Scrum:

Scum is agile framework that promotes flexibility,collaboration, and iterative progress through sprints. It involves roles like srum master ,product owner,and Development team, working in short cycle to deliver incremental value. There are some key practices like reviews and daily stand ups. If there is change in customer needs this method is useful.

**Question 9 – Waterfall RUP Spiral and Scrum Models**

Water fall model:

Water fall model is a structured SDLC model where the development process flows sequentially through predefined phases. This model is simple to understand and easy to manage. Each stage in this must be completed before going to next phase.

RUP:

It is a software development model that structures the development process into iterative cycles. It is a flexible iterative software development model that devides the project into 4 phases inception,elaboration constructive andtransition with each phase building on the previous one to gradually refine and deliver the final product.

Spiral model:

The spiral model is an iterative software development model that combines elements of both design andprototypingin stages , focussing on risk assessment and minimizing the project risk analysis engineering and evaluation until final system is developed.

Scrum model:

Scrum model is incremental agile software development model that organizes work into sprints,typically lasting 2 to 4 weeks with a focus on collaboration, adaptability and delivering small usable products incriments frequently.

**Question 10 – Waterfall Vs V-Model**

|  |  |
| --- | --- |
| WATER FALL | V MODEL |
| It follows linear approach where each phase must complete before the project begin | It flows a parallel process with each development phase having a corresponding testing phase |
| Changes are difficult once the project starts | This model is flexible where there can be changes enabled |
| Testing is conducted after development phase is complete | Testing is done early with plan,design etc |
| Under involvement is limited | In this there is more involvement of user throughout the process |
| Risk management is less | Risk management is more |
| Cost is low | Cost is high |
| Best suited for project with well defined | Suitable for projects where early validation and verification are critical . |

**Question 11 – Justify your choice –**

As a BA I will choose V model in this case the requirement is farmer need an online platform to buy agricultural products and manufacturer need to list their products. The V model works best when their requirements are clear and stable from the beginning. In this case the application should be user friendly so this model focus on continuous testing and these qualities are met. There fore v model is the optimal choice for this project as it ensures through testing and high quality deliverables, which are essential for meeting the specific needs of farmers and manufacturers in the agricultural sector.

**Question 13 – Fixed Bid Vs Billing**

|  |  |
| --- | --- |
| FIXED BID | BILLING PROJECTS |
| Price is fixed in this | Price is depend on time and material |
| Well define and documented | Flexible and can evolve during project |
| Service provider bear most of the risk | Client bear most of the risk |
| Fixed cost | Cost varies on work |
| Suitable for well defined projects | Suitable for unclear projects |
| Required detailed negotiation upfront | Continuous negotiation and agreement on work done |

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

Design Timesheet of a BA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Task/ activity | Description | Time spent (hrs) | status |
| Day 1 | Requirement gathering | Meet with stakeholders to gather requirement for the online agricultural store | 2hrs | complete |
| Day 2 | Stake holder meeting | Discuss the project with Mr pandu Mr dooku and team | 1.5hrs | In progress |
| Day 3 | Process mapping | Create a process flow diagram product purchase and delivery | 3 hrs | In progress |
| Day 4 | Documentation and reporting | Draft the business requirement for the project | 3 hrs | In progress |
| Day 5 | Coordination with development | Discuss technical requirement with developer | 1 hrs | Scheduled |
| Day 6 | Analysis of user stories | Review and refine user stories for the development team | 1.5 hrs | scheduled |
| Day 7 | Data collection and analysis | Analyze existing agricultural product stores and complete market data | 2 hrs | Completed |
| Day 8 | Testing planning | Coordinate with testers for the best case preparation | 1 hrs | Scheduled |
| Day 9 | Communication with stakeholders through email and meetings | Reqular updates to peter,kevin,and ben on project progress | 1 hrs | Ongoing |
| Day 10 | Review and refining requirement | Meet with business owners and stakeholders to refine requirements | 2 hrs | sheduled |

Development Timesheet of a BA

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Activity | Hours spent | Remarks |
| Day1 | Requirement gathering session | 3 | Meeting with mr Karthik |
| Day 2 | Documenting business requirement | 2 | Preparing detailed documens |
| Day 3 | Stakeholder meeting | 1.5 | Discussed project timeline |
| Day 4 | Use case creation and review | 2 | Collaboration with PA |
| Day 5 | Process mapping and diagram | 3 | Revised with developers |
| Day 6 | Testing and validation support | 2.5 | Worked with testers |

Testing Timesheet of a BA

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Activity | Hours spent | Remarks |
| Day 1 | Test case review and validation | 2 | Ensured coverage of all requirements |
| Day 2 | UAT test case creation and planning | 3 | Collaborated with stakeholders |
| Day 3 | Monitoring functional testing execution | 2 | Supported testers with clarifications |
| Day 4 | Defect review and management | 2.5 | Prioritised defects for developers |
| Day 5 | UAT execution and feedback | 3 | Verified UAT test cases with users |
| Day 6 | Final review and sign off of testing results | 1.5 | Confirmed that testing is complete |

**UAT Timesheet of a BA**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Activity | Hours spent | Remarks |
| Day 1 | UAT test case creation and planning | 3 | Defined user scenarios with stakeholders |
| Day 2 | Coordinating UAT training for stakeholders | 2 | Organized training session for end users |
| Day 3 | Monitoring UAT execution | 2.5 | Ensured smooth testing execution |
| Day 4 | Issue logging and defect management | 2 | Worked with developers on defects |
| Day 5 | Feedback collection from UAT participants | 2 | Collected feedback from test users |
| Day 6 | Final sign off and documentation preparation | 2.5 | Prepared UAT report and sign off |

**Deployment n Implementation Timesheet of a BA**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Activity | Hours spent | Remarks |
| Day 1 | Deployment planning and coordination | 3 | Collaborated with devs and ops teams |
| Day 2 | Pre-deployment review and confirmation | 2 | Verified business requirements |
| Day 3 | Deployment support | 4 | Assisted during go-live answered queries |
| Day 4 | Post -deployment monitoring | 2.5 | Addressed issue with initial users |
| Day 5 | End user training and knowledge transfer | 3 | Conducted training sessions |
| Day 6 | Stakeholder sign off and final report | 2 | Prepared deployment report and received sign off |
| Day 7 | Post-deployment feedback collection | 2 | Collected user feedback and suggestion |