**Online Agriculture Products Store**

**BPM**

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

Name of the Project Online Agriculture Product Store

**Budget:** 2 Crores

**Actors:**

**Business Stakeholders:** Henry, Peter, Kevin and Ben

**Project Stakeholders:** **Mr Karthik (Delivery Head) Mr Vandanam(Project Manager)**

Ms. Juhi (Senior Java Developer)

Ui/ux developer

Mr. Tyson, Ms. Lucie, Mr. Tucker, Mr. Bravo (Java Developers).

Mr. Mike (Network Admin)

John(DB Admin)

Mr. Jason, Ms. Alekya(Tester)

Mr. Saifullah Aamir (BA)

**Goal**: The primary goal for this project is to solve agriculture farmer issues by creating an app/website store, where farmers can be able buy direct pesticides, seeds, fertilizers from the online store from the manufacturing company with quick delivery to avoid loss in agriculture due to late/unavailability of the fertilizers during crops agriculture.

**Inputs:**  While creating the online store, we need to get input from the stakeholders. Inputs are product categories(how many types of fertilizers, pesticides, seeds in various quanity so that the manufacturing company can upload their products and SKUs accordingly, place the order properly, and manage proper inventory.

 Inputs required from the manufacturing company are product images, details, expiry dates, usage instructions,

 Inputs required from the project stakeholder (Project manager) is the finalized technology, version, platform we are going to use for this online store since the project’s budget is already decided at 2 crores INR within 18 months duration.

**Resources:** Resources will be finalized by the project manager with regards to final decided technology, software versions, database, and interface to be used for this project.

**Output:** The final output will be the online store in the form of App/Website where farmers can place an order from their mobile/laptop/pc by adding the products in Cart option and pay the order amount by UPI or COD.

**Activities**: Collecting functional requirements from the stakeholders, converting them into technical specifications, design, code, test, deploy, maintain.

**Value Created to End Customer**:Quick Purchase from the fingertip of the mobile.

**SWOT**

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| **Strengths**1. Strong Product knowledge at the  end user.2. Solving society's problem, so high  chance of getting marketing benefits. | **Weaknesses**1. Remote area, weak knowledge of product

usage.1. Time-taking process for UAT as the end user

is unaware of the product interface. |
| **Opportunity**1. Multiple opportunities can arise as it’s a known problem for every farmer.2. Chances of collaboration with other  area farmers in the area to make it a single platform.(Early start  advantage) | **Threats**1. Another competitor can copy this model as

there is no USP.1. Chances of failure as village farmers may

opt for traditional purchasing methods dueto trust issues. |

**Feasibility Study**

**Budget:** 2 crores

The cost estimated is 1.6 crores

**Technology Used:**

Hardware: AWS

Software: Shopify & Magento

Webserver: Apache HTTP Server

Resources: Developers, Testers, Business Analyst, Project Manager, office space, internet, laptops subscription fees of software.

Time Frame:19 months

**GAP Analysis**

**Current State:**

* Manual purchase of fertilizers so far lot of time wasting factors for farmers.
* Lack of knowledge of online ordering

**Desired State:**

* Everything became automated via online ordering including automated delivery after the order is made.
* Farmers will be educated to use the app for various other purposes to initiate future similar projects in automation.

**Risk Analysis**

* **Process Risk:** Due to the latest technology, farmers may avoid using it as using the online store via laptop or mobile requires some background knowledge.
* **BA Risk:** Late updating of prices/product images & data from a third-party software developing team who are far from the farmland can potentially impact real-time business as prices always fluctuate in the farmer’s market prices (Rythu Bazar prices).
* **Project Risk:** Another competitor can start a similar product, which may impact the app's market value/ customers and its value and usage.

**RACI Matrix**

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| **RACI** | **Name of the Responsible** | **Designation** | **Details** |
| **Responsible** | Ms. Juhi | Sr. Java Developer | Email id: Juhi@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr. Tyson | Java Developer | Email id: Tyson@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Ms Lucie | Java Developer | Email id: Lucie@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr Tucker | Java Developer | Email id: Tucker@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr. Bravo | Java Developer | Email id: Bravo@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr Jason | Tester | Email id: Jason@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Ms. Alekya | Tester | Email id: Alekya@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr. Vandanam | Project Manager | Email id: Vanadanam@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| **Accountable** | Mr. Saifullah | Business Analyst | Email id: Saif@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Mr John | DB Admin | Email id: John@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| **Consulted** | Mr. Mike | Network Admin | Email id: Mike@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Henry | Sponsor | Email id: Henry@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| **Informed** | Mr. Karhik | Delivery Head | Email id: Karthik@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Peter | Stakeholder | Email id: Peter@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Kevin | Stakeholder | Email id: Kevin@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |
| Ben | Stakeholder | Email id: Ben@123.comPh:00 00 00Reach out: 10: am to 12 pm EST |

**Business Case Document**

1. Why this project is initiated?

Because Mr. Henry wanted his other friends(Peter, Kevin & Ben) who are farmers to fulfill their

dreams by adding value in their farming methods by quick delivery of essential farming items like pesticides to avoid any loss in crops/farming.

1. What are the current problems?

Mr. Henry's friends were facing challenges in farming by getting late deliveries of pesticides and seeds, whenever they required an item to use it needed a manual visit to the city and purchase items from there, by the time the crop was getting spoiled which was leading to losses.

1. With this project, how many problems could be solved?

With this project not only Mr. Henry’s friends but any other farmers residing in that locality can take the benefit of this with quick deliveries of the pesticides & seeds without manually travelling to the city and can save lot of time of transportation & farming shortcuts.

1. What are the resources required?

To setup the whole project Project Manager, Software developers, Network Admins, DBA, Business Analyst, Office space, Internet, Software subscriptions, database, servers, collaboration with various vendors in the city is required.

1. How much organizational change is required to adopt this technology?

Farmers need to be educated to adapt to the latest method of ordering it from laptop/mobile. So at the client end education is required. At the development company’s end need to onboard or deploy java developers into this project to strategically understand the requirement and finish the project.

1. What is the Time frame to recover ROI?

The Time frame to recover the ROI depends on the speed of the user’s adaptability to the latest method. Generally it could take around 1 year because farming is a long process.

1. How to identify stakeholders?

By identifying the process heads, interviewing, and RACI matrix & mapping techniques.

**SDLC Methodologies**

Mr. Karthik discussed methodologies with the business stakholders to finalize the method as per their convenience. During his discussion he discussed pros & cons of the following methods.

1.**Sequential-Waterfall:** A traditional methodology where each phase of the project is completed sequentially, from initiation to closure, without revisiting previous steps. It is best for projects with well defined and unchanging requirements.

2. **Iterative-RUP(Rational Unified Process):** A flexible, iterative approach where the project is developed in repeated cycles, allowing for adjustments and refinements after each phase. It is suitable for projects that need gradual evolution and regular feedback.

3. **Evolutionary-Spiral:** Focuses on continuous risk assessment and iterative development, allowing for constant refinement and adaption throughout the project. It is ideal for complex projects with high uncertainty and evolving requirements.

4. **Agile-Scrum:** An adaptive methodology where work is divided into short sprints, and progress is reviewed regularly for constant feedback and improvement. It is most effective in dynamic projects where flexibility and rapid response to changes are essential.

 **Opinion** : As a BA I think **V Model methodology suits better** for this as there is no extensive risk or iterations required but testing may require in this particular agriculture online product store as farmers are new to the product may required multiple testings.

**Waterfall Vs V-Model**

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| **Aspect** | **Waterfall Model** | **V-Model** |
| **Definition** | A linear and sequential app-roach to software development | A sequential development process where Each phase corresponds to a testing phaseForming a “V” shape. |
| **Phases** | Requirements--> Design-->Implementation-->Testing-->Maintenance. | Requiements-->Design-->Implementation-->Verification (testing)--> Validation(testing) |
| **Testing** | Testing starts after the implementation phaseIs completed. | Testing is done in parallel with development,Each phase has a corresponding testing phase |
| Time &Costing | Can be time-consuming and costly if changes Are needed after development | Can be more efficient in terms of time and cost due to early error detection and correction. |

**Justification of my choice:** I have chosen V Motel methodology because it’s a traditional project & low experience at the stakeholder level, testing may be required as per their comfort level. Since there is no much competition for this online store V model method could be the most suitable methodology for this project implementation in order to simplify the budget and ease of things in every test phase to the business stakeholders as well as project stakeholders.

**Gantt Chart**



**Fixed Bid vs. billing**

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| **Aspect** | **Fixed Bid Project** | **Billing Project** |
| **Payment Structure** | A fixed price is agreed upon for theEntire project, regardless of timesOr resources used. | Billing is done based on time Spent, resources used or mile-Stones reached |
| **Risk** | The risk is on the service providerAs they must deliver within theAgreed price. | The client assumes more risk sinceCosts can vary based on the time Or resources used. |
| **Flexibility** | Less flexibility for scope changes,As they may require negotiation | More flexibility to adjust scope or Requirements as the project progresses. |

**Timesheets**

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| **Design Phase** |
| **S.No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Understanding Design | Writing down importantDesign requirement &wireframes | 10:00 am | 12:00 am | 2 hrs |
| 2 | Syncing with theDeveloper | Discussed feasibility of the design with Java developer | 12:00 pm | 01:30 pm | 1.5 hrs |
| 3 | Taking Approval | Discussed the final designWith the business stake-Holder | 02:00 pm | 03:30 pm | 1 hrs |
| 4 | New RequirementSorting | Business Stakeholder gaveSome fresh requirements | 03:30 pm | 04:30 pm | 1 hrs |
| 5 | JAD | Finalized requirements from various stakeholders whichwere conflicting with each other | 04:30 pm | 06:30 pm | 2 hrs |

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| **Development Phase** |
| **S.No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Understanding Design | Writing down importantCoding challenges/codingFailures team has Faced. | 10:00 am | 12:00 am | 2 hrs |
| 2 | Syncing with theNetwork Admin | Collaborated with Network engineers for theProper load balancing mechanism | 12:00 pm | 01:30 pm | 1.5 hrs |
| 3 | Taking Approval | Discussed the final designWith the business stake-Holder | 02:00 pm | 03:30 pm | 1 hrs |
| 4 | Testing Team | Included testing team for Prior involvement to under-Stand major/commonBlunders could occur duringDevelopment phase, to avoidTime wasting. | 03:30 pm | 04:30 pm | 1 hrs |
| 5 | Meeting with SME | Discussed new interfaceIssues faced by them& wrote actionable items To remove them | 04:30 pm | 06:30 pm | 2 hrs |

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| **Testing Phase** |
| **S.No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Understanding Design | Writing down importantDesign requirement &wireframes | 10:00 am | 12:00 am | 2 hrs |
| 2 | Syncing with theDeveloper | Discussed feasibility of the design with Java developer | 12:00 pm | 01:30 pm | 1.5 hrs |
| 3 | Taking Approval | Discussed the final designWith the business stake-Holder | 02:00 pm | 03:30 pm | 1 hrs |
| 4 | New RequirementSorting | Business Stakeholder gaveSome fresh requirements | 03:30 pm | 04:30 pm | 1 hrs |
| 5 | JAD | Finalized requirements from various stakeholders whichwere conflicting with each other | 04:30 pm | 06:30 pm | 2 hrs |

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| **UAT Phase** |
| **S.No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Understanding User acceptance testing | Writing down importanttesting requirements | 10:00 am | 12:00 am | 2 hrs |
| 2 | Syncing with theDeveloper | Discussed feasibility of the testing with testing team  | 12:00 pm | 01:30 pm | 1.5 hrs |
| 3 | Elicitation technique | Discussed the final testingwith the business stake-Holder & gathered some New inputs via elicitationTechniques. | 02:00 pm | 03:30 pm | 1 hrs |
| 4 | New RequirementSorting | Business Stakeholder gaveSome fresh requirements | 03:30 pm | 04:30 pm | 1 hrs |
| 5 | Brainstorming Session | Finalized requirements from various stakeholders whichwere conflicting with each other | 04:30 pm | 06:30 pm | 2 hrs |

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| **Deployment & Implementation Phase** |
| **S.No** | **Task** | **Actionable Items** | **Start Time** | **End Time** | **Duration** |
| 1 | Understanding deployment | Writing down importantdeployment requirement. | 10:00 am | 12:00 am | 2 hrs |
| 2 | Syncing with theEngineer | Discussed feasibility of the different platform implementation with Java Engineers | 12:00 pm | 01:30 pm | 1.5 hrs |
| 3 | Sign offs | Discussed the final KPAFrom business stake-Holder | 02:00 pm | 03:30 pm | 1 hrs |
| 4 | New RequirementSorting | Business Stakeholder gaveSome requirements | 03:30 pm | 04:30 pm | 1 hrs |
| 5 | Interview | Finalized requirements from various stakeholders whichwere conflicting with each other | 04:30 pm | 06:30 pm | 2 hrs |