**Capstone Project Part -1**

**Notes -**

Business Owner – Henry

Best friend of owner – Peter, Kevin , and Ben

1.Peter problem – difficulty in procuring fertilizers

2. Kevin problem – problem in buying seeds for certain crops

3. Ben – lack of pesticides

Product – Online Agriculture product store ( so that farmers and companies i.e fertilizer , crop , pesticides can talk directly)

Application should –

1. Accept product (fertilizer , seeds ,pesticides )from manufacture
2. Display them to farmers
3. Farmers browse the product
4. Select product
5. Request to buy
6. Deliver to location

**Soony Company**

a. Financial Head – Pandu

b. Project Cordinator – Dooku

**c. Henry gave project to his company Soony**

Above 3 made a committee and gave this project to **APT IT SOLUTIONS for 2 CR**

Durations – 18 months ( under CSR initiative )

Peter , kevin , ben helping committee and considered as **stake holders**

**1.Delivery Head – Mr Kartik**

**APT COMPANY** has a talent pool available for project.

2. Project Manager - - Vandanam

3. Senior Developer – Juhi , Teyson , Lucie , Tucker , Bravo

4. Network admin – john

5. Tester – Jason , Alekya

6. BA – Myself

**Questions and Answers**

Answer 1 – **Business Model for an Online Agricultural Store**

Business Model contains how company creates ,delivers , and capture value.

**Goal**

1. Primary Goal – Platform to purchase agro products such as seeds , fertilizers
2. Secondary Goal – Enhance product and awareness of customer

**Input**

Product Stocks

Technology – mobile app , website , payment gateways , customer service systems

Suppliers – Manufacturer , Wholesaler

Logistics – partnership with shipping co.

Customer feedback

Output

Product delivery

Customer support

Awareness of knowledge

**Resources**

Ecommerce Platform

Distribution center

Supply chain

Customer support

Marketing tools

**Key Activities**

Product Procurement

E commerce operations

Marketing and promotions

Logistics and Delivery

Customer service and support

Data analytics (to analyze customer behavior)

**Value Created for the end customer**

Convenience

Wide range of product selection

Competitive pricing

Expert advice

Timely delivery

High quality product

Personalized experience

**Answer -2 SWOT Analysis**

Strength

Convenience

Wide product range

Growth Market demand

Scalability

Weakness

High initial investment

Logistics challenges

Dependence on 3rd party

Complexity in product information

Opportunities

Expanding market for online

Educational content

E commerce growth

Partnership with agri tech companies

Sustainability

**Threads**

Intense competition

Supply chain disruption

Changing regulations

Price sensitivity

Technology dependence

**Answer -3 Feasibility Test**

Feasibility Test help to asses whether the proposed business model is viable from finance, technical and operational and market perspectives.

**Market Feasibility**

Target Market – Farmers , Agri business

Market need – Affordable , hight quality

Risk factor – market saturation , trust issues

**Technical Feasibility**

Platform design

Product management

Order fulfillment – integrate with logistics for real time tracking , order management and delivery updates

**Technology Requirements**

E commerce platform

Cloud infrastructure for hosting ( AWS , Google Cloud )

Payment Gateways

CRM

**Operational Process**

Inventory Management

Customer support

Cyber security

**Finance Feasibility**

Budget Estimate

Inventory

Marketing expense

Employee salaries

**Answer 4 GAP Analysis**

GAP Analysis involve assessing the difference between traditional offile and online

Existing – Store visit , limited product , lack of personalization , time consuming

New – convenience , wide product , personalized experience , faster transactions

1. Process Gap – Customer experience – offline shopping provide interaction with product immediately which is lost in online however online store compensate with convenience , personal recommendations.
2. Inventory Gap – Online provide great efficiency
3. Order fulfillment Gap – delivery time and shipping cost
4. Customer support Gap – personal interaction and technical challenges
5. Marketing gap – local reach and global reach , Customer engagement
6. Cost gap – initial set up cost and logistics cost
7. Technology gap – technical challenges , learning curve

**Answer -5 Risk Analysis**

1. Market Risk – Demand of product is seasoned
2. Competition
3. Regulatory changes
4. Financial risk – cash flow issues , cost over run, price sensitivity
5. Operational risk – supply chain disruptions, delivery challenges , quality control
6. Process Risk – risk related to execution
7. Technical risk – technical failure , cyber threats , integration challenges
8. Project management risk – delay in development, inexperienced team , scope creep

**Answer 6 Stakeholder Analysis**

1. Internal stakeholder – who are directly involved in execution of project
2. Project team ( high power and high interest) , manage closely (action plan – regular meeting and updates)
3. Founders , owners , investors ( high power and hight interest) manage closely ( Action plan – regular updates on progress and key decisions)
4. Customer support team (low power and high interest) keep informed ( Action plan – keep engaged with digital marketing)
5. Logistica and warehouse team ( medium power and medium interest) keep informed
6. External stakeholder
7. Suppliers/vendors ( medium power and high interest) keep satisfied
8. Customer ( low power and high interest) keep informed
9. 3rd party logistics provider ( keep informed)
10. Technology partner
11. Regulatory bodies ( high power low interest)
12. Local communities ( low power and medium interest) ( Action plan – engage thru local outreach)
13. Marketing partners

**Answer – 7 Business Case Document**

Executive summary – it provide concise proposed online store , its purpose and expected benefit

Project name –

Project sponsor –

Project manager –

Business objectives –

Expected benefits

1. Revenue growth
2. Market expansion
3. Convenience
4. Customer satisfaction

Business problem and opportunities

Problem – limited access , traditional supply chains

Opportunities – e commerce growth , untapped market

Project objectives –

Short term objectives

Develop e commerce platform and integrate

Establish partnership

Medium objectives –

Increase traffic to online store

Enhance website

Long term objective –

Expand the product range

Scale operations

Achieve sustainable profitability

Scope of the project

Includes –

Development of website

Integration of payment

Customer services

Excluded –

International shipping beyond target region

In house manufacture

Large scale partnership

Financial analysis –

Initial investment

Revenue projection

Cogs

Operating expense

Market analysis

Targeted market

Risk assessment and mitigation

Implementation plan –

Phase 1 plannig and design

Phase 2 development and set up

Phase 3 launch and operation

Phase 4growth and scaling

**Answer 8 4 sdlc methodologies**

**Sdlc –** structured approach to software development. Each phase has its critical purpose ensuring that development of high quality softwareand it met user requirmenrt and function effectively.

Following are the phase –

1. Requirement gathering
2. Requirement analysis
3. Design
4. Development
5. Testing
6. Process configuration
7. Deployment and implementation
8. Maintenance

There are several models to implement in sdlc and the model choice depends on the project needs , timeline , complexity . below are the most common models.

1. Water fall

It is a sequential approach where each phase must be completed before the next phase . best for simple projects

1. Agile

An iterativr and incremental model that focus on flexibility , customer collaboration , and rapid delivery. Developent happens in cycle called sprints. Best for changing requirement

1. V model

It is an extension of water fall model where each phase is associated with corresponding testing phase. Best for project which are cler and stable

1. Iterative model ( RUP ) Rational unified Process

Develop the software in small , iterative cycle. Best for feed back and improvements projects

1. Spiral Model

It is a combined elements of both iterative development and waterfall model . it focus in risk management. Best for large and complex model.

**Answer 9**

As per my analysis v model is appropriate because in very step it will validate and tested before going to next phase.

Moreover as a BA to resolve the issue of conflict – firstly I will be finding the root cause and then active listening to all the stakeholder who are involved then ask the question and clarify one by one. Also set up a meeting for an open discussion and propose win win solutions by using data and evidence and then documenting the discussion. And promote collaboration , compromise and accommodation technique.

**Answer 10 Waterfall v/s V model**

**Approach –** waterfall has linear and sequential process and v model emphasis on both along with testing

Testing – testing happens only after development phase is completed. V model happens parall

Flexibility – waterfall less flexibility . less flexibility but testing happens alongside

Risk management – in waterfall risk identified late . v model risk identified earlier.

Change management- waterfall difficult to accommodate. In v model harder to accommodate after testing

Documentation – in waterfall heavy document every phase. V model heavy document in development phase.

**Answer 11 Justify your choice**

As a BA choosing V model for a project depends on various project requirements.

Timeline

Complexity

Need for early verification and validation

1. Early Identification of issues
2. Close alignment between development and testing
3. Clear structure and traceability
4. Ideal for critical systems
5. Minimal need for rework

Also in the end I would also suggest Agile Methodology. If situation have more complexities.

**Answer 12 Gantt chart**

It is a type of a Bar chart used for project management to illustrate project scheduling. It show start and finish date of various projects

Task start date end date duration responsible progress

Requirment gathering 1 may 2025 7 may 2025 7 days BA 0%

Requiremnt analysis 8 may 2025 14 may 2025 7 days BA 0%

D1

T1

D2

T2

D3

T3

D4

T4

UAT

**Answer -13 Fixed bid and billing projects**

1. Payment structure – Fixed price is agreed upon entire project . Billing is based on actual time and resources.
2. Risk – Higher risk for service provider. Billing higher risk for client
3. Scope – well defined and fixed scope. Billing scope is flexible
4. Flexibility – low flexibility and in billing high flexibility
5. Budgeting – fixed bid is set in advance . billing project is not fixed.

**Answer -14 Prepare Timesheets of a BA in various stages of sdlc.**

**Date Task Project name time spent status notes**

**24 may Requirment 3 in progress na**

**Gathering**