**Capstone Project 1 Part 2**

**Q3 3- Tier Architecture**

3 tier architecture is the way of representing the system in a system design. The 3 layers are Application Layer, Business logic layer and Database Layer.

The application layer consists of the front end which help to explain the UI/UX which is done through the help of language such as HTML, CSS, JAVA, React JS, Angular JS etc.

The business layer

In 3-tier architecture there are three layers. it will organize applications into

three logical and physical computing tiers: the **presentation tier**, or user interface, the

**application tier**, where data is processed; and **the data tier**, where the data

associated with the application is stored and managed.

1. Application layer: it includes the Agricultural mob app screen, login page,

functionality.

2. Business logic layer: here in this case it’s a payment methods, agricultural

product company details, specific rules.

3. Database layer: it can be company’s details, product details data, farmer’s

data.

**Q4 BA Approach Strategy for Framing Questions**

**5 W 1 H where BA** needs to ask the stakeholder

What is the project about?

Why project is initiated?

Who will be benefited?

When it should get completed?

Where to get connected for requirement?

How we can complete the project?

**2. 3 tier architecture approach BA** needs to identify the logical and physical content?

What is the information need to require in the online store?

Project availability for the farmer?

Reasonable price and easy updates are there?

Their preferred languages are?

3. Use case in this BA needs to approach through primary actor to the line-up design

for the working structured

Who is the primary user?

What type of product need for the project?

Placing order

Order confirmation needs to be required

Delivery channel & tracking updates

**4. The activity diagram** is in the UML for modelling the dynamic aspects of the

system for various aspects we need to mark certain questions with stakeholders.

What activity is going to perform

Functional relational between the part

Business functionally and business objectives.

**5.Modelling& page design** - It’s a very important part of the question for requirement

getting where BA needs to ask a stakeholder about.

In what way do you want functioning to look like?

The web page function looks like?

Functional activity

Payment gateway

Complain and function update

**Q5 Elicitation Techniques**

In the online agriculture store we have the following elicitation techniques

Prototyping, Use case, Document Analysis, Brainstorming, Stakeholder analysis, BRD, Waterfall, JAD. Stakeholder analysis: is the first step in Stakeholder Management, an important process that successful people use to win support from others. Managing stakeholders can help you, too, to ensure that your projects succeed where others might fail.

1. Getting your project into shape,

Winning Resources

1. Brain storming: This technique is used to generate new ideas and find a solution

for a specific issue. The members included for brainstorming can be domain experts

and subject matter experts. Multiple ideas and information give you a repository of

knowledge and you can choose from different ideas. This session is generally

conducted around the table discussion. All participants should be given an equal

amount of time to express their ideas.

The brainstorming technique is used to answer the below questions:

•What is the expectation of a system?

•What are the risk factors that affect the proposed system development and

what to do to avoid that?

•What are the business and organization rules required to follow?

•What are the options available to resolve the current issues?

•What should we do so that this particular issue does not happen in the future

3 Prototyping : is used to identify missing or unspecified requirements. In this technique, frequent demos are given to the client by creating the prototypes so that client can get an idea of what the product will look like. Prototypes can be used to create a mock-up of sites, and describe the process using diagrams.

4. Interview: This is the most common technique used for requirement elicitation. Interview techniques should be used for building strong relationships between business analysts and stakeholders. In this technique, the interviewer directs the question to stakeholders to obtain information. The one-to-one interview is the most commonly used technique.

If the interviewer has a predefined set of questions, then it’s called a structured interview. And If the interviewer is not having any particular format or any specific questions then it’s called an unstructured interview. For an effective interview, you can consider the 5 Why technique. When you get an answer to all your Whys then you are done with your interview process. Open-ended questions are used to provide detailed information. This interviewee cannot say Yes or No only. Closed questions can be answered in Yes or No form and also for areas used to get confirmation on answers.

5. Document Analysis/Review : This technique is used to gather business information by reviewing/examining the available materials that describe the business environment. This analysis is helpful to validate the implementation of current solutions and is also helpful in understanding the business need. Document analysis includes reviewing the business plans, technical documents, problem reports, existing requirement documents, etc. This is useful when the plan is to update an existing system. This technique is useful for migration projects. This technique is important in identifying the gaps in the system i.e., to compare the AS-IS process with the TO-BE process. This analysis also helps when the person who has prepared the existing documentation is no longer present in the system.

6. Survey / Questionnaire: For the Survey/Questionnaire, a set of questions is given to stakeholders to quantify their thoughts. After collecting the responses from stakeholders, data is analysed to identify the area of interest stakeholders. Questions should be based on high-priority risks. Questions should be direct and unambiguous. Once the survey is ready, notify the participants and remind them to participate.

**Q7. Which Elicitation Techniques can be used in this Project and Justify your selection of Elicitation Techniques?**

I will use brainstorming tech to find the solution on the issues observed to complete this project, I will arrange the session with SME, Software developer and will select the better idea. In brainstorming 8 to 12 people come together and give their best idea on the specific problem through this we can resolve the issue in a single time. It is utilized in requirement elicitation to gather a good number of ideas from a group of people usually brainstorming is used in identifying all possible solutions to problems and simplifies the details of opportunities. In the online agriculture store there only, problem is a climate issue where if 8 to 12 people give an idea about it then this issue or suitable manner answer well come out for the farming and well climate update future is introduced in app-only through farmer get an update about the climate and take some advance steps.

**Q8.** **10 Business Requirements**

1. System should show welcome page

2. System should allow user to login through mob no. or mail id

3. User should get the option of COD and Cr\Dr card for payment

4. Users should get product details once they clicked on it.

5.Customer should get email / message once order booked.

6. If any delays from companies to deliver product user should get message.

7. Users should be able to book products in advance or carry in their cart.

8. System should have option to exchange or return the product

9. System should allow users to give feedback / rating for products and other users can have view option.

10. Feedback and customer care tab should be on home page.

Q9. List your assumptions

1. consumers will be keen to buy your products or services, generating sufficient sales to make profit for the long run.

2. They will get all resources asap.

3. Client start thinking of profit before launching products in market.

4. Is there significant customer base.

5. Clients thinks that business will get funded.

6. client thinks that there will be smooth delivery of product.

7. We can beat competitor easily.

**Q10. This project Requirements Priority**

|  |  |  |  |
| --- | --- | --- | --- |
| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| BR001 | Framers search for products | Farmers should be able to search for available products in fertilizers, seeds, pesticides | 8 |
| BR002 | Manufacturers upload their Products | Manufacturers should be able to upload and display their products in the application | 8 |
| BR003 | Login/User Registration | System should allow user to login or register  through email Id or mob no. | 10 |
| BR004 | Product Information | Users should get product details once  they clicked on it. | 7 |
| BR005 | Product return/  exchange | System should have option to replace  the or return the product. | 6 |
| BR006 | No limitation to book/  purchase the products | Users should be able to book products  in advance or carry in their bucket. | 4 |
| BR007 | Payment options for  farmers | Farmers should be able to do the payment through multiple payment options. | 8 |
| BR008 | Product Tracking | Track the product status once order is placed and if delivery is delayed or something user should be informed. | 7 |

**Q11 Use Case Specs Prepare use case specs for all use cases**

This use case describes how this website will help farmers to buy fertilizer& another item online.

**Actors**

Farmer

1Manufacturer

Delivery partner

**Preconditions**

Good internet connection

Smartphone/laptop

Valid mobile no & Emai id

Valid pin code & delivery address.

**The basic flow:**

1. The use case begins when the farmers start searching for fertilizers, pesticides, and seeds online on the portal.

2. Then the site will display the product as per the search along with all product details like price, quantity & others.

3. The site will prompt action to enter the pin code to check the availability of the product & expected delivery date.

4. If the entered pin code is not serviceable then it will inform that this product cannot be delivered to this location

5. Then farmers will have the option of adding to the cart for the selected prod & quantity they want to purchase at the selected pin code.

6. After adding to the cart, it will ask for the full address to enter and proceed to complete the order.

7. Before completing the order and moving to the payment page it will ask the user to log in with a valid mobile number with OPT.

8. Selecting the complete order button will take the user tothe payment page displaying the final amount to pay on the screen.

9. Payment page will show different payment modes available like COD, Debit /credit card, UPI, Net Banking and ask the user to enter correct payment details like pin, CVV, card number,

10.Once the payment is done, it will generate a pop-up message whether the payment is successful or not if successful then the real-time order id will be generated, and if the payment is not successful then it will move back to the payment completion page showing the payment not received try again.

11. Once an order is placed successfully then it will ask the user to go to the order tab to check the dispatch status and at the same time, it will send an order confirmation or failure mgs on the mobile no. entered at the time of login.

12.After the dispatch of the product on the order page it will show shipment tracking details with a link to track the same.

13.The farmers receive the placed product.

14.The use case ends successfully.

Expectation-

15.Then the user can download the invoice from that page in PDF, PNG, JPG file.

16.After the delivery of the product users will have the option of replacement or return of the product if the product delivered does not match the quality as per the description on the website.

17.User can contact the customer help desk to place a return or replacement.

18.And it will ask for confirmation regarding the return or replacement.

19.If a return is selected, then the payment made will be returned to the source but if payment was done with COD, then the user will have to enter valid bank details to receive a refund.

20.If replacement is selected, then the new product will be delivered & will be exchanged with the old one.

**Q12. Before the Project is going to Kick Start, The Committee asked Mr. Karthik to submit BA Approach Strategy**

As a BA you first need to identify the identify/Gather the requirement and for this you need to use multiple elicitation techniques for requirement gathering, once this is done you can work on Stakeholder analysis which can be done through RACI matrix