

Question 1 – Identify minimum 20 functional requirements

Requirement ID	Requirement Name	Requirement Description	Priority
FR001	User registration and login	Farmers should register and login	high
FR002	Product catalog	Products should be displayed with full description	high
FR003	Search	Main option to get into application	high
FR004	Product category	To segregate products like seeds, pesticides and fertilizers	medium
FR005	Product availability	Based on stock products will be displayed	medium
FR006	Payment process	Processing payment option as per user	high
FR007	Cart	Adding products to cart	medium
FR008	Rating of product	Reviews help to purchase the product	low
FR009	Seller details	Details of the manufacturer	medium
FR010	Shipping and delivery	Provide delivery related information	high
FR011	Order Tracking System	Real-time order status updates for farmers.	medium
FR012	Email / SMS Notifications	Alerts for order confirmation, delivery, offers	Medium
FR013	Wishlist	Farmers can save products for future purchase.	low
FR014	Discount	Apply discounts at checkout.	medium
FR015	Order History	Farmers can view past orders and their details	low
FR016	Forgot / Reset Password	Users can retrieve or reset their password via email.	high
FR017	Logout Option	Users can log out of their account.	low
FR018	FAQs Page	A page answering common user questions.	medium
FR019	Language Selection Option	Users can choose their preferred language.	high
FR020	Terms & Conditions	Display platform policies to users.	low

Question 2-Minimum 5 page designs - Make wireframe and prototypes

1. Create account

A wireframe of a web page titled "A Web Page" with the URL "http:// Agriculture App/Create account". The page has a dark teal background. It features four white input fields stacked vertically, labeled "User name", "Email", "Mobile Number", and "Password". Below these fields is a green button with the text "Create account". The browser window includes standard navigation icons and a search bar.

2. Login

A wireframe of a web page titled "A Web Page" with the URL "http:// Agriculture App/login". The page has a dark teal background. It features two white input fields stacked vertically, labeled "User name" and "Password". Below these fields is a green button with the text "Login". The browser window includes standard navigation icons and a search bar.

3. Add to cart

A Web Page

http:// Agriculture App/Add to cart

Fertilizers 100

Pesticides 200

Seeds 300

Add to Cart

4. Buy

A Web Page

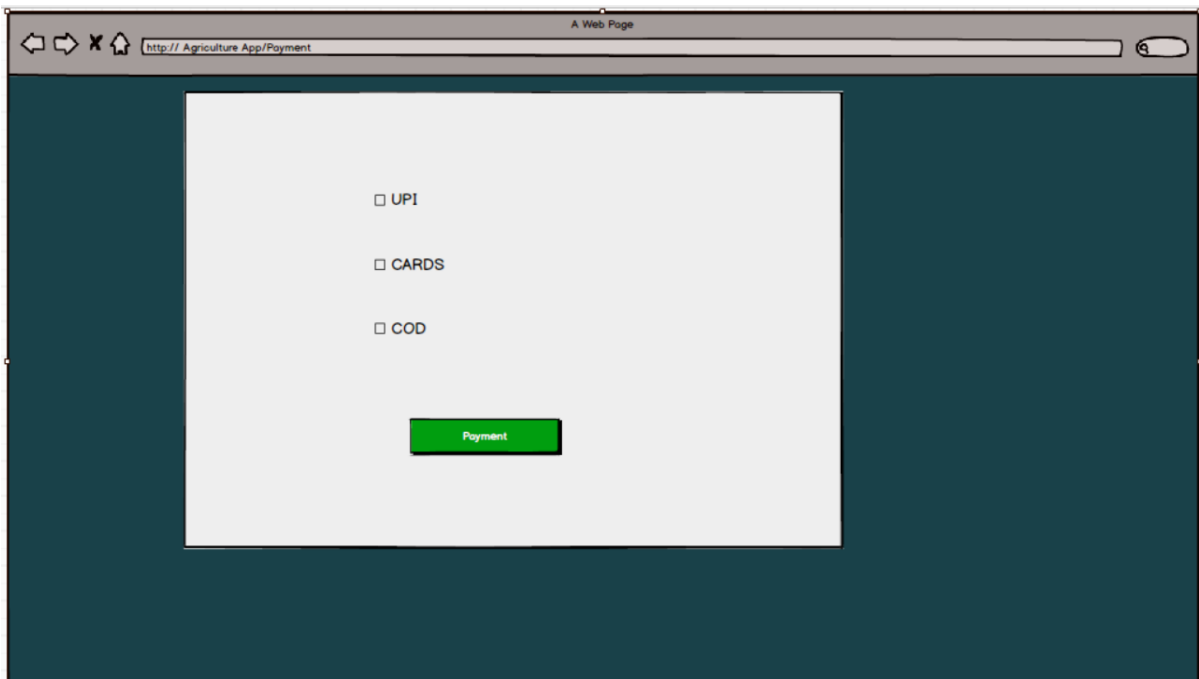
http:// Agriculture App/Buy

Pesticides 200

Seeds 300

Buy

5. Payment



Question 3 - Make a note of the Tools, which you are using for above concepts. (Tools-Visio, Balsamiq)

Microsoft Visio :

It is a diagramming and vector graphic application Used to create diagrams, flowcharts, org charts, and other visual representation of complex information.

Mainly used for technical reference and business documentation.

Viewed by and understood by Technical professionals and it supports data links and logic.

Balsamiq :

It is a rapid wire framing tool used to create mockups and prototypes of user interfaces.

Mainly used for early-stage app or website design.

It is simple and fast to use — no technical skills required.

Beneficial for prototyping and feedback gathering.

Question 4 – Prepare RTM

Requirement ID	Requirement Name	Requirement Description	Priority	Category	Sub-Category	Design	System integration testing	User acceptance testing
FR001	User registration and login	Farmers should register and login	10	Registration	Name, phone number, Email, Password	ABC1234.docx User registration and login Customer should be able to purchase products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx User registration and login Customer should be able to purchase products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx User registration and login Customer should be able to purchase products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR002	Product catalog	Products should be displayed with full description	5	Products display	Seeds, pesticides, fertilizers	ABC1234.docx Product display App should display products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product display App should display products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product display App should display products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR003	Search	Main option to get into application	9	Browsing the products	Seeds, pesticides, fertilizers	ABC1234.docx Product search User should be able to search the products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product search User should be able to search the products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product search User should be able to search the products 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR004	Product category	To segregate products like seeds, pesticides and fertilizers	6	Product category	Seeds, pesticides, fertilizers	ABC1234.docx Product category App should display products by category 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product category App should display products by category 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product category App should display products by category 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR005	Product availability	Based on stock products will be displayed	8	Stock	In stock out of stock	ABC1234.docx Product stock App should track stock and display when it is out of stock 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product stock App should track stock and display when it is out of stock 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Product stock App should track stock and display when it is out of stock 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025

Requirement ID	Requirement Name	Requirement Description	Priority	Category	Sub-Category	Design	System integration testing	User acceptance testing
FR006	Payment process	Processing payment option as per user	7	Payment	COD Card UPI	ABC1234.docx Payment User should be able to do payment 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Payment User should be able to do payment 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Payment User should be able to do payment 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR007	Shopping cart	Adding products to cart	3	Cart	Wishlist	ABC1234.docx Cart User should be able to add the products to cart 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Cart User should be able to add the products to cart 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Cart User should be able to add the products to cart 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR008	Rating of product	Reviews help to purchase the product	4	Reviews	Ratings Comments	ABC1234.docx Reviews User should be able to give reviews 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Reviews User should be able to give reviews 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Reviews User should be able to give reviews 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR009	Seller details	Details of the manufacturer	1	Seller details	Seller name Seller ratings	ABC1234.docx Seller details User should be able to see seller details 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Seller details User should be able to see seller details 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Seller details User should be able to see seller details 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025
FR010	Shipping and delivery	Provide delivery related information	2	Order status	Track order Manage order Cancel order	ABC1234.docx Order details User should be able to see order status 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Order details User should be able to see order status 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025	ABC1234.docx Order details User should be able to see order status 32, 16, 44 //ABC1234/FRD PM009687 22 Oct 2025

Question 5: Prepare 10 Test Case Documents

Test case Id	TC021	Test case Name	User registration
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Ms Alekya
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer signs up using mobile number		
Link to the page	https://agristore.com/product/123		
Input data	Mobile no:9874561230		
Expected behavior	user account created		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC022	Test case Name	User login
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T014
Test plan ID	TP003	Tester Name	Mr Jason
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	A registered farmer logs in with correct contact number		
Link to the page	https://agristore.com/product/555		
Input data	Mobile no:9874561230		
Expected behavior	Login successful		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC023	Test case Name	Manufacturer adds product
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Ms Alekya
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	manufacturer logs in and adds product with full details		
Link to the page	https://agristore.com/manufacturer/addproduct		
Input data	Product ,category,price,manufacturer		
Expected behavior	Product list created		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC024	Test case Name	Product catalog
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Mr Jason
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer views the product catalog		
Link to the page	https://agrystore.com/catalog		
Input data	Product catalog		
Expected behavior	Displays list of products with image, name, category, price, manufacturer details.		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC025	Test case Name	Search product by category
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Ms Alekya
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer searches for “seeds”		
Link to the page	https://agrystore.com/product/555		
Input data	Category : seeds		
Expected behavior	Search results show products in category “seeds”		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC026	Test case Name	Check product availability
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T014
Test plan ID	TP003	Tester Name	Mr Jason
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer checks the stock details		
Link to the page	https://agrishop.com/product/123		
Input data	Product123		
Expected behavior	In stock or out of stock		
Actual behavior			
Comments			
Results(Pass/Fail)			

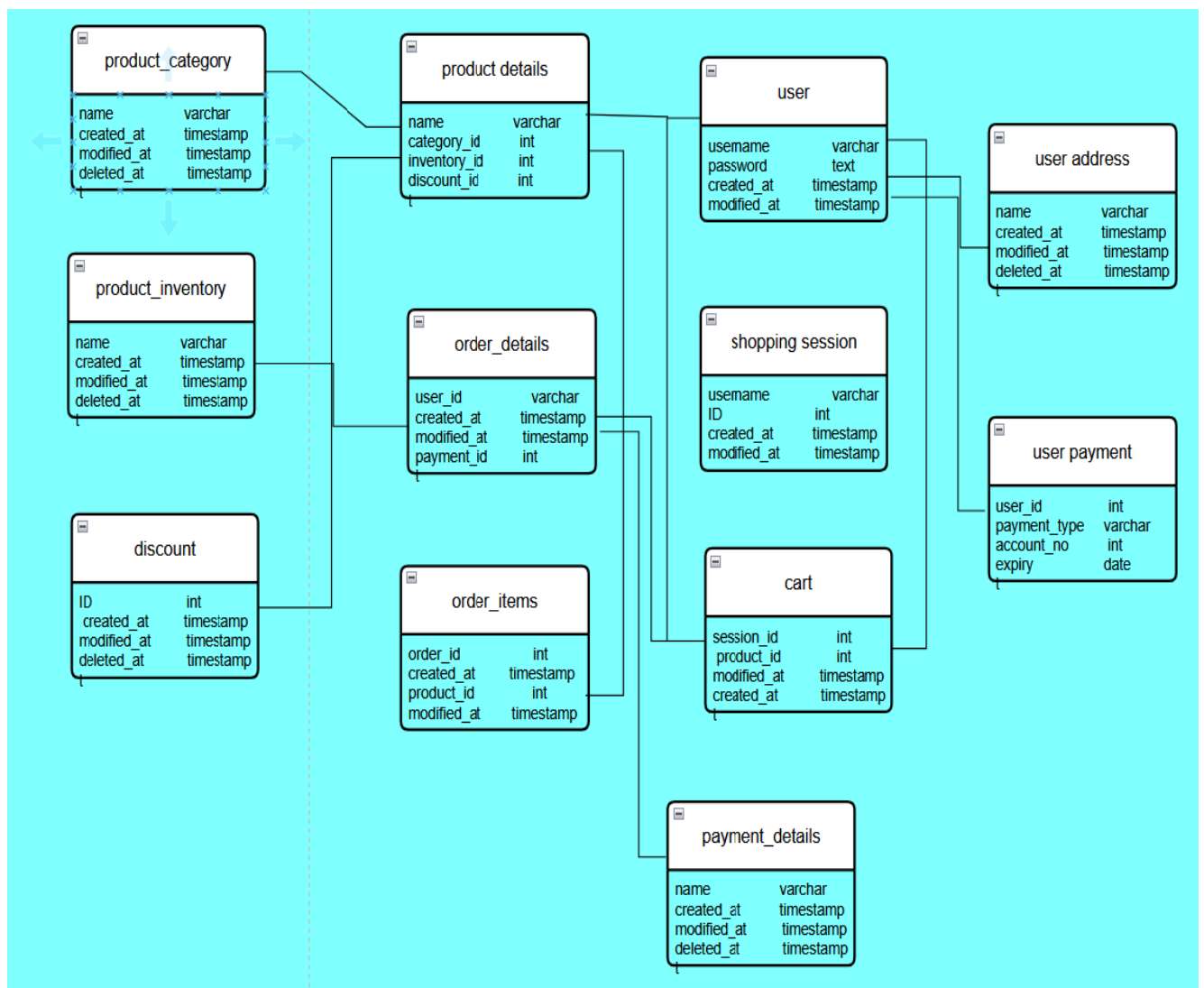
Test case Id	TC027	Test case Name	Add product
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Ms Alekya
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer adds a product to buy later		
Link to the page	https://agristore.com/product/add-to-cart		
Input data	Added to cart		
Expected behavior	Product is added to cart		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC028	Test case Name	Payment process with card
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T014
Test plan ID	TP003	Tester Name	Mr Jason
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer completes purchase using card		
Link to the page	https://agrishop.com/product/555		
Input data	Payment method: card, Amount: ₹2000		
Expected behavior	Payment success, order confirmed		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC009	Test case Name	View seller/manufacturer details
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T013
Test plan ID	TP003	Tester Name	Ms Alekya
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer views the manufacturer details		
Link to the page	https://agrishop.com/product/555		
Input data	Product ID: 555		
Expected behavior	Manufacturer name, contact info, rating displayed		
Actual behavior			
Comments			
Results(Pass/Fail)			

Test case Id	TC010	Test case Name	Order tracking
Project ID	P003	Project Name	AgriStore
PM ID	PM303	PM Name	Mr Vandanam
Test strategy ID	TS201	Tester ID	T014
Test plan ID	TP003	Tester Name	Mr Jason
Test schedule ID	SCH020	Date of Test	2025-10-19
Scenario	farmer checks the status of their placed order via tracking page		
Link to the page	https://agristore.com/order/track/orderid12345		
Input data	Order-orderid12345		
Expected behavior	Show the status of the order		
Actual behavior			
Comments			
Results(Pass/Fail)			

Question 6 – After the requirements are thoroughly explained to the entire project team by business analyst, the Database architects have decided to do the database design and also to represent the in-flow and out-flow of data. Draw database schema and ER diagram

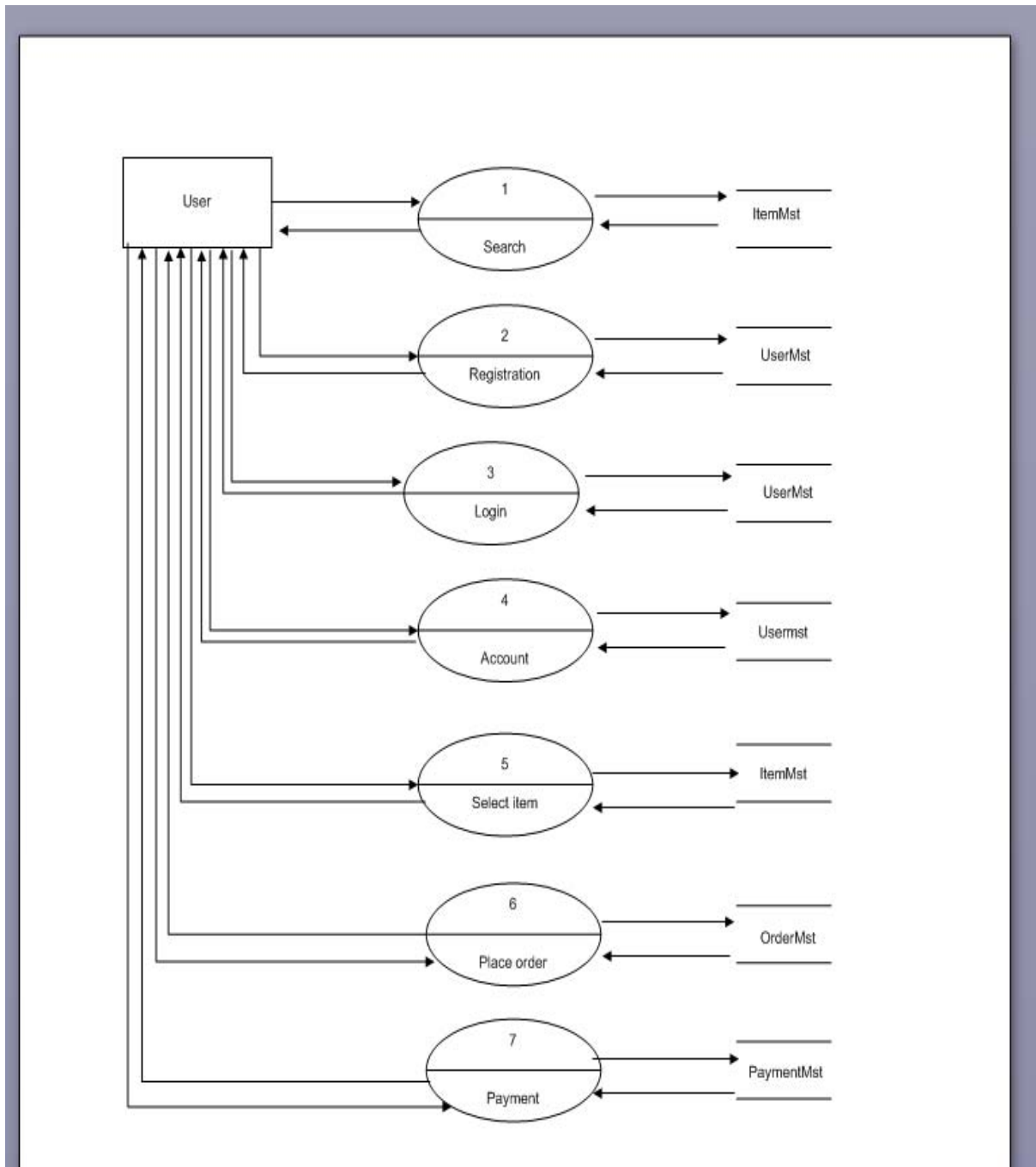


Question 7 – What is a data flow diagram? Draw a data flow diagram to represent the in-flow and out-flow of data when a Farmer is placing an order for the product

It helps understand system logic and useful for requirement gathering and system design. Mainly for better understanding of business stakeholders and developers.

A Data Flow Diagram (DFD) is a picture that shows how data moves through a system.

It shows where the data comes from and where it goes.



Question 8 - Due to change in the Government Taxation structure . we should change the Tax structure. How do you handle change requests in a project?

Whenever a change request comes, BA first should check if the change is a defect from the previous installation or not. If it is due to previous defect, it should be communicated to the technical team/support team to handle it. Else BA handles the change request by going through the following steps:

1. BA should first understand the scope of change.
2. He needs to analyze whether the change is inside/outside the scope of the project
3. BA then should do the analysis via:
 - a). **Impact analysis:** How many documents and programs are getting impacted due to the change
 - b). **Feasibility study:** Whether the change is possible or not, or whether we have required manpower/skill set or not
 - c). **Effort estimation:** What are the extra efforts in terms of man hours required to carry out the change.
4. Approve or reject the change request: After doing the analysis the data should be sent to Change Control Board (CCB) to approve or reject the change.
5. Communicate and implement the approved change request: The change request should be taken approval from the Project Manager, after approval log this change request into Change tracker.

Question 9 –As the project is in process, Ben and Kevin have contacted you. The reason is to inform you that they want the Farmers to sell their crop yields through this application i.e. Farmers should be able to add their crop yields or products and display to general public and should be able to sell them. They also want to introduce Auction system for their Crop yields. As a BA, what will be your response? Is this a change request or an enhancement?

The application is mainly built considering the farmer as a user but as farmer he himself wants to sell his own crop yields & go for auction, farmer here will become the seller. This is entirely a new change request as the goal of the project is only make agricultural products like seeds, pesticides and fertilizers available to farmers.

1. **Description of the change:** Enabling farmers to sell crop yields & introduce auction system
2. **Change Request ID:** A unique identifier (e.g., CR-001)
3. **Date of Request:** Date the change was requested on 21-10-2025.
4. **Requested By:** Name(s) of stakeholders (e.g., Ben and Kevin)
5. **Description of Change:** Allow farmers to sell their own crop yields and introduce an auction-based sale system.
6. **Reason for Change:** Why the change is needed to empower farmers and create a marketplace for their produce.
7. **Impact Analysis:** How it affects scope, cost, timeline, resources, and system design
8. **Feasibility Assessment:** Yes the change is possible with current tech resources.
9. **Effort Estimate:** Approximate time, cost, and resource impact
10. **Priority:** Medium
11. **Approval Status:** Approved
12. **Approver:** Names of stakeholders or steering committee members

Question 10 - estimations – How many Man hours required

Man hours are the required effort of the resources to complete a project. As per the case study, the duration of the project is 18 months and the current team size is around 11. As the trained resources are available, trainers are not required. As the structure of the project is available, new and enhanced infrastructure is not required.

The estimated project completion time = 18 months, which includes all phases from requirement analysis to deployment.

Man-hours = total number of working hours required from all team members to complete the project.

To calculate this:

Total Manhours=Number of Team Members×Working Hours per Day×Working Days per Month×Project Duration in Months

Number of Team Members 11

Working Hours per Day 8 hrs

Working Days per Month 22 days

Project Duration 18 months

Total Man-hours = $11 \times 8 \times 22 \times 18$ = Total Estimated Effort = 34,848 Man-hours

Question 11 - Explain UAT Acceptance process

Planning: In this step, Blue Prints are made to implement UAT testing for every feature that needs to test and minimum standards for accepting the test.

Designing: Here the Test cases are designed to hide all the possibilities of software packages in a real world environment.

UAT Testers: A Testing team consists of a end users that meet the criteria for implementing testing. The end user must have expertise in subject matter, the ability to report the problems.

Bug Fixing: Whatever Bugs are found in the UAT Testing, the development team should work on them and make it software error free.

Sign Off: After removing all the bugs, the testing team indicates acceptance of the completion of the bugs. In this phase, all the stakeholders come to a conclusion that the software is ready to GO LIVE and sign it off.

Question 12 - Explain Project closure document

S.No.	Points to include	Details	Reference link
1	Did the client signed off on the UAT Testing		Business scope document
	Date of the signoff:	20 th Oct 2025	
	Name of the resource:	xxxx	
2	Objectives of the project		
	User friendliness	Achieved	
	Customer satisfaction	ROI in 6 months	
	More categories	Achieved	
3	Functionalities worked on		
	Secure payment processing	Achieved	
	Categories	Achieved	
4	Infrastructure		
	Softwares Installed	Achieved	
	Laptops purchased	Achieved	
5	Funding		
	Amount approved	Rs.1 crore	
	Amount used	Rs. 95 Lakhs	
6	Overall project Information		
	Escalations	50	
	Customer satisfaction	High	
7	Value to the company		
	1:16:18/1:17:Negative	Positive-90% - Company has gained an edge over the competitors - Increased clients Trained employees -New project in pipeline	