

Capstone project 1 part 3

Q 1. Functional Requirements

Functional requirements are the specific behaviors, functions or operations of a system. They describe what the system should do ,tasks, actions, or activities it must perform to achieve its objectives.

Req Id	Req Name	Req description
FR0001	Farmer registration	Farmers should be able to register with the application
FR0002	Farmer search for products	Farmers should be able to search for available products in fertilizers, seeds, pesticides
FR0003	Product details	Farmers can view product details (description, price, reviews)
FR0004	Product add to cart	Farmers can add products to a cart
FR0005	Product add to wishlist	Farmers can add products to wishlist
FR0006	Place order	Farmer can place order for the selected products
FR0007	Payment mode	Farmer can make payment through Cards, UPI, and COD
FR0008	Manufacture register	Manufacturer can register or login
FR0009	Manufactures add products	Manufactures can add new products with details
FR0010	Forgot login details	Farmer/manufacture can reset password or username if they forgot

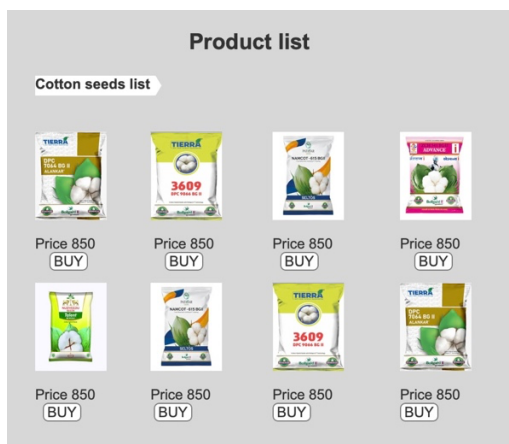
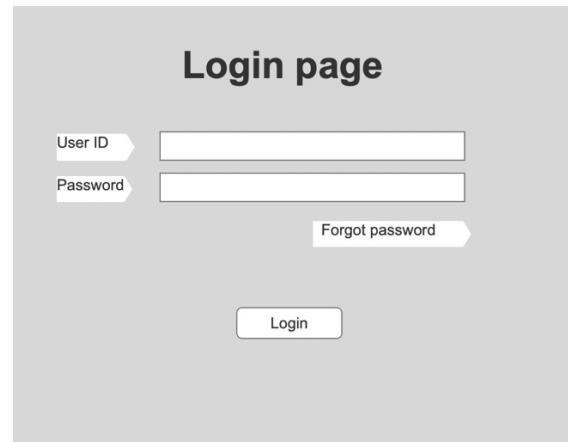
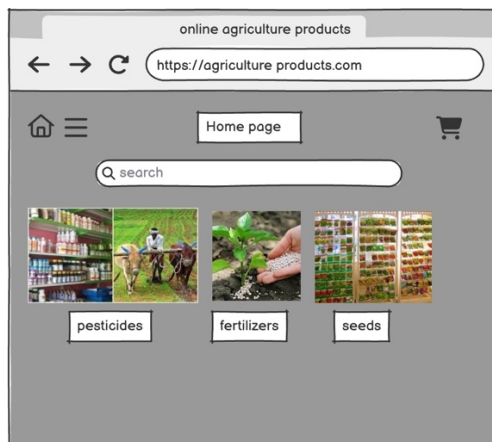
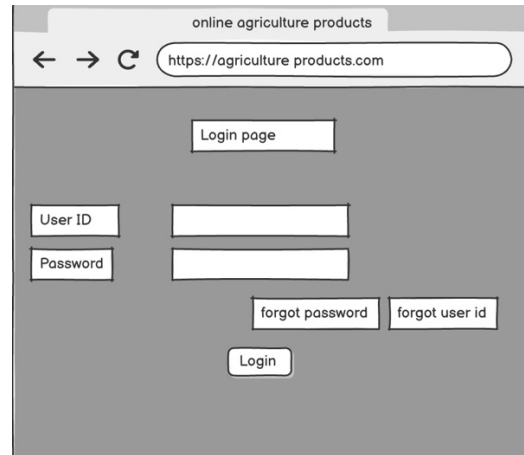
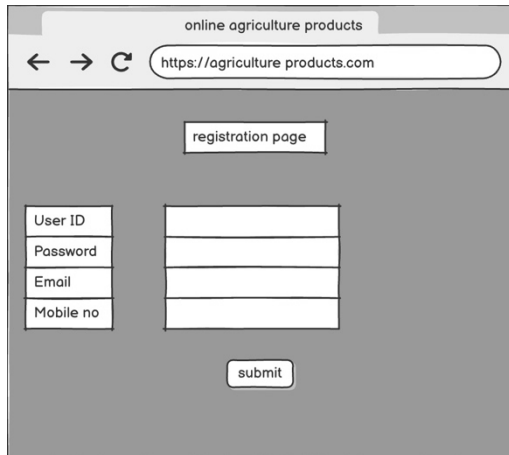
Non Functional requirements

Non functional requirements will describe the qualities and attributes of a system, focusing on how the system performs rather than specific behaviors or functions.

Req Id	Req Name	Req description
NFR0001	Usability	The application should be user friendly
NFR0002	Performance	The page should load within 3 seconds
NFR0003	Security	The application should secure with authentication
NFR0004	Compatibility	The application should be compatible with major web browsers
NFR0005	Handling	Application should handle at least 10000 users at same time
NFR0006	Working	The system should work with slow internet in remote areas
NFR0007	New features	The application should be able to add new features in the future
NFR0008	Storing	User data should be stored safely
NFR0009	Support	The application should work on both mobile and desktops
NFR0010	Availability	The system shall be available 99% of the time.

Q 2. Wireframe and Prototypes

Wireframes are basic blueprints used in web design and app development to represent the layout and structure of a page or screen



Q 3. Make a note of the Tools, which you are using for above concepts.

MS Visio

Microsoft Visio is a diagramming tool used to create professional flowcharts, UML diagrams, network diagrams, and organizational charts. It offers a wide range of templates and symbols for designing system architecture and processes. It's widely used in software projects for creating clear, technical visual documentation and planning.

- Easy drag and drop shapes for professional diagrams
- Good for detailed technical designs
- Professional system designs

Balsamiq

Balsamiq studio is founded in March 2008 by Peldi Guilizzoni, a former Adobe software engineer. Creating simple and quick wireframes or mockups of web/mobile screens. It's ideal for brainstorming and communicating ideas during the early stages of UI/UX development.

- Very easy to use
- Great for brainstorming and showing ideas visually
- Quick sketch-style screen ideas

Axure

Axure is a powerful prototyping tool used to create detailed wireframes, user flows, and interactive prototypes. It supports dynamic content, conditions, and animations, allowing you to simulate real user interactions. It's great for demonstrating how a system or application will behave before actual development begins.

- Can simulate real app behavior
- Helpful to show how users will move through the system
- Showing how the system will work

Q 4. Prepare RTM

It is document to track the requirements throughout the project lifecycle, ensuring that they are met and that no requirements are overloaded.

[illegible]

[illegible]

Q 5. Test Case Documents

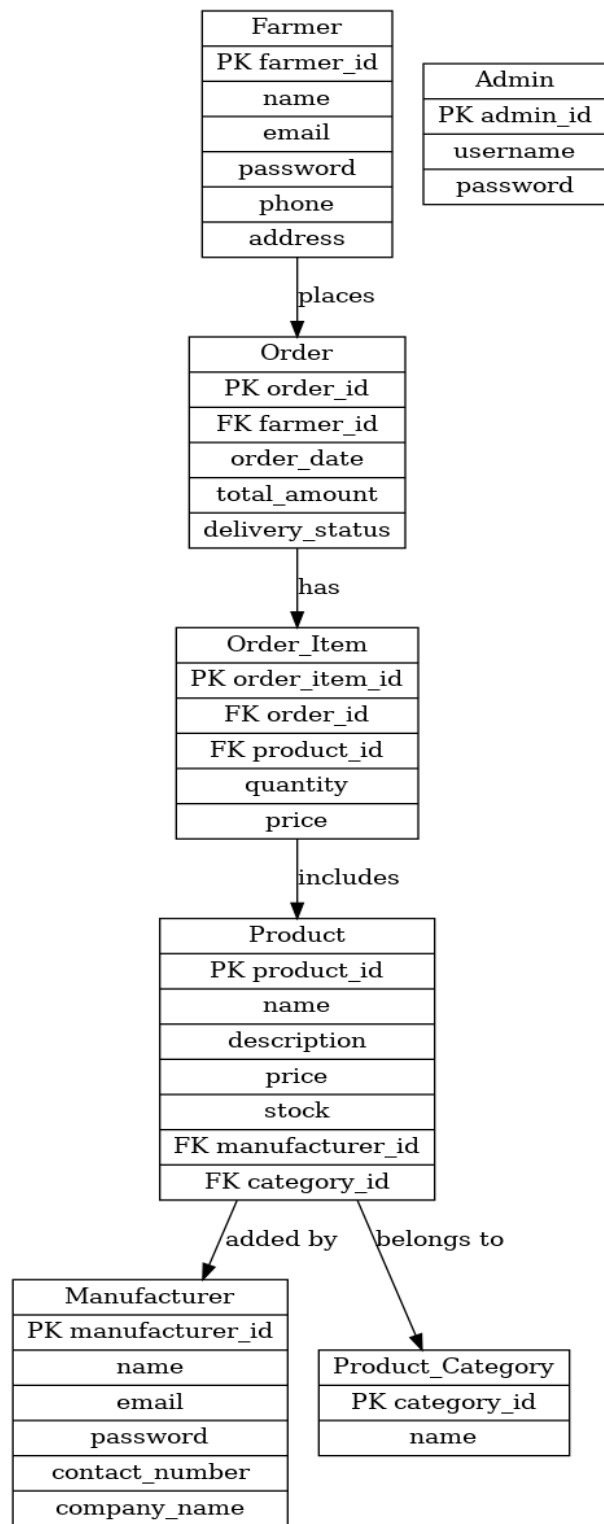
A test case document is a detailed outline used by testers to ensure that a software application or system is working as expected.

Test case Id	PQ987TS002		Test case Name		Search	
Project Id	PQ987		Project name		Online agriculture products	
PM Id	1234		PM Name		Mr. Vandanam	
Test strategy id	PQ987TS001		Tester id		9879	
Test plan id	PQ987TP001		Tester name		Ms. Alekya	
Test schedule id	PQ987TS001		Date of Test		02-07-2025	
Scenario	Search for products					
Link to the page						
Input data	Set 1 Seeds for cotton crop Nuziveedu products	Set 2 Seeds for corn crop 5 star rating products	Set 3 Pesticides For insects in cotton crop Best seller	Set 4 Pesticides For wheat crop Different company	Set5 Fertilizers For mirchi crop Compost	Set 6 Seeds for wheat crop Basmati rice Bestseller
Expected behaviour	Eg: 10 products should be shown					
Actual behaviour						
Comments						
Results						

Q 6. Draw database schema and ER diagram

DB Scheme is a blueprint that outlines the structure of a database, including tables, relationships and other characteristics

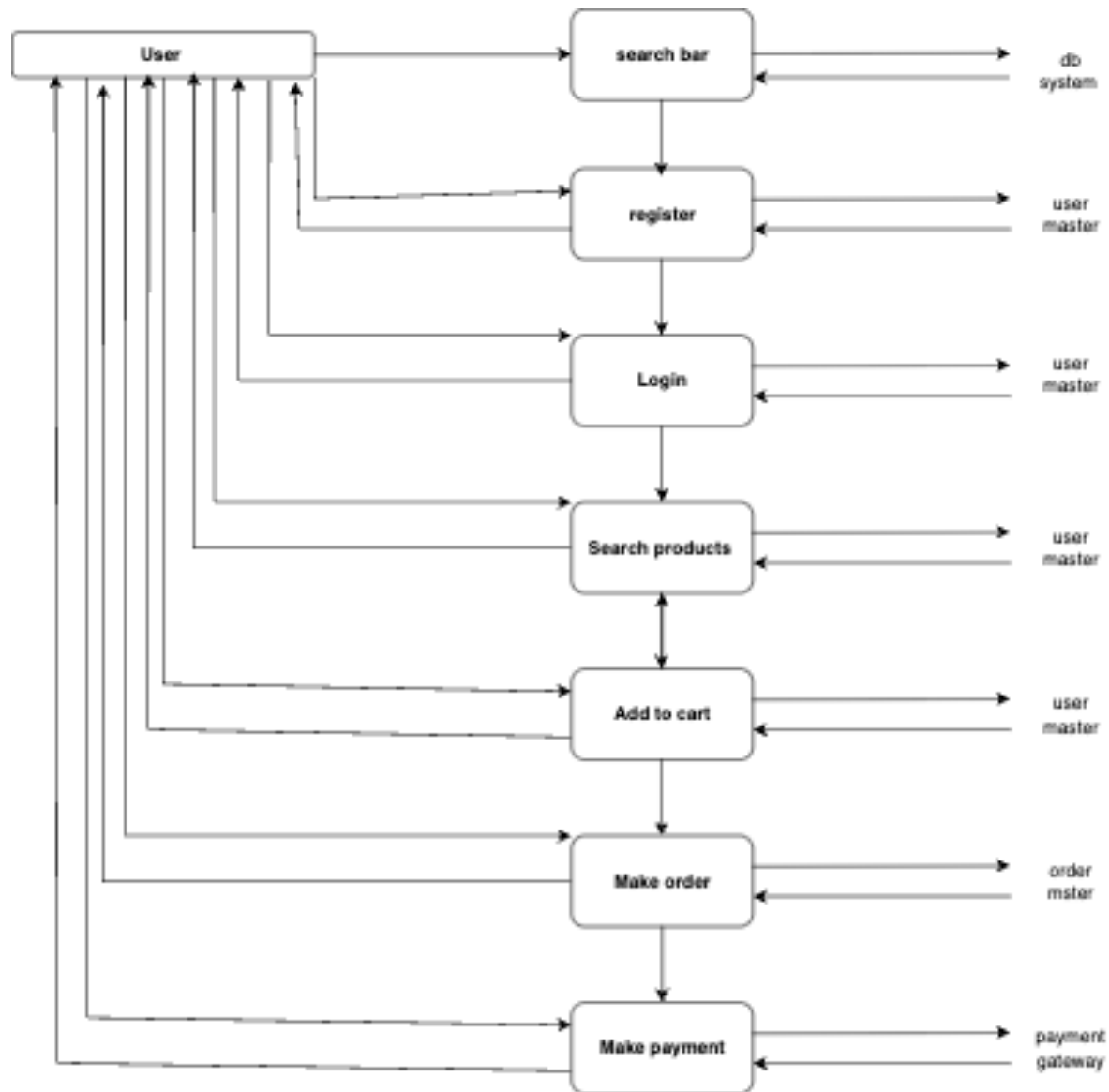
An Entity Relationship Diagram is a visual representation of the relationships between entities in a database.



Q 7. Data flow Diagram

A Data Flow Diagram is a graphical representation of the flow of data within a system. It visually shows how data moves from one process to another, how it is stored and where it ends up.

It helps designers understand the flow of the data within a system.



Q 8. How do you handle change requests in a project.?

A Change Request is when someone asks to make a change to the project after the work has already started.

1. Identify and log the request

who raised it.?

What is the change.? (New tax rates due to govt policy)

Where it is applied.? (product price, invoice)

2. Analyze the change

Gather the new tax rules

Understand where taxes are currently applied in the system

Product price, checkout, invoice, tax report.?

3. Evaluate Impact with Team

Developers – where tax is implemented in the code

Database admin – tax table need change

Tester – new test case

UI/UX – tax displayed to user

Finance team – to verify

4. Present to Change Control Board (CCB)

Explain what the change is

Show the impact analysis (time, cost, risk)

5. Get Approval

Once the CCB (Project Sponsor, PM, Client) approves it, move forward

6. Update Documentation

Business Requirement Document (BRD)

Use cases

Functional Specifications

7. Implement the Change

Development team update logics

DB team update tables

Testers performs

8. Communicate, track and close the req

Notify the internal user

After deployment and verification, update status to implemented or req closed

Record the change req.

**Q 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.?**

It's a Change request

As the original scope of the project was farmers to buy seeds, pesticides and fertilizers. Now Ben and Kevin are asking for new feature that allow farmers to sell their crop yields.

However this new request introduces entirely new functionality allowing farmers to sell their produce and conduct auctions, which were not part of the initial requirements. This change significantly impacts the scope, design, database, user flows, and possibly even the legal and financial structure of the platform. Therefore, I would formally log this as a change request, analyze its impact on cost, timeline, and resources, and present it to the Change Control Board for review and approval. Once approved, I would proceed to gather detailed requirements, update documentation, and coordinate with the development and testing teams to implement the new features effectively

Q 10. How many Manhours required.?

Man hours are the required efforts of the resources to complete a project. There are 3 types of projects

Small upto 500 hours

Medium upto 1000 hours

Large upto 1500 hours

Analysis

As per the case study the duration of the project is 18 Months and the current team size is 17. This will come under medium project

Role	People	Avg time per person
Business analyst	1	60hrs
Sr java developer	1	200hrs
Java developers	6	180hrs
Testers	2	70hrs
Db admin	1	60hrs
Network admin	1	40hrs
UI/UX designer	1	80hrs
Project manager	1	100hrs

Q 11. Explain UAT Acceptance process.?

UAT (user acceptance testing) is the final stage of testing where real users test the system to make sure it works as expected.

UAT Process

1. Prepare UAT
Business analyst prepare UAT plan
2. Invite the users
Select the user from client side (ben peter kevin)
Explain what they need to test and how
3. Execute the tests
User performs real tasks
They check it is working as expected
4. Report issues and Reset
If anything is broken, missing user report it
The team fix and update the system
User test again
5. Final sign-off
Once users are happy they give UAT Sign-off

Q 12. Explain Project closure document.?

A project closure document is known as a project closure report.

A project closure document is a formal document created at end of the project.

Points included in the project closure document

Project overview

Achievements

Lessons learned

Quality assurance

Resource utilized

Risk management

Challenges

Final budget and time report

UAT Sign-off

Signatures