Requirement Analysis

Data Flow Diagram & User Stories

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Project Name	ShopSmart: Your Digital Grocery Store Experience

Data Flow Diagram (DFD) :

A Data Flow Diagram (DFD) is a graphical representation of how data moves through a system. It shows the flow of data between processes, external entities, and data stores in a system without showing program logic or internal data structures.

Why Use a DFD?

- It provides a clear overview of how the system handles data.
- Useful for analyzing and designing the system architecture.
- Helps identify inputs, outputs, processes, and data storage in a system.

Components in a DFD

- External Entities: Represent users or systems that interact with the application.
- Processes: Represent tasks/functions performed by the system.
- Data Stores: Databases or storage that hold data.
- Data Flows: Arrows that show the movement of data between entities, processes, and stores.

Example (Simplified Flow for ShopSmart):

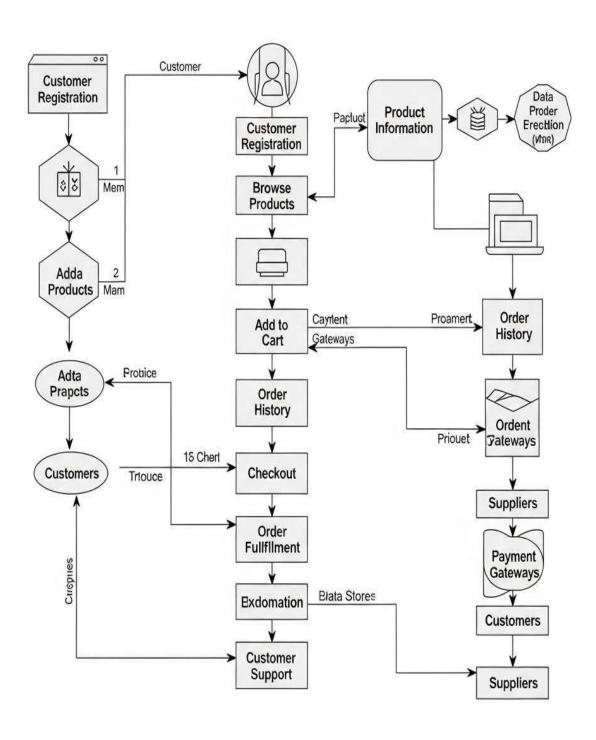Customer --> [Login/Register] --> [Authentication Process] --> [User Database]

Customer --> [Browse Products] --> [Product Search Process] --> [Product Database]

Customer --> [Add to Cart] --> [Cart Process] --> [Cart Database]

Customer --> [Checkout] --> [Order Process] --> [Order Database]

Admin --> [Manage Products] --> [Product Management Process] --> [Product Database]

Data Flow Diagram (DFD):

ShopSmart DFD

User Stories Table:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint1
		USN-2	As a user, I will receive a confirmation email once I have registered for the application.	I can receive a confirmation email & click confirm	High	Sprint1
		USN-3	As a user, I can register for the application through Facebook.	I can register & access the dashboard via Facebook	Low	Sprint2
		USN-4	As a user, I can register for the application through Gmail.	I can register & access via Gmail	Medium	Sprint1
	Login	USN-5	As a user, I can log into the application by entering my email & password.	I can access the system securely	High	Sprint1
Customer (Web user)	Product Search & Order	USN-6	As a user, I can browse and search products using category and price filters.	I can view filtered product results	High	Sprint2
		USN-7	As a user, I can add products to my cart and adjust quantities.	My cart updates dynamically	High	Sprint2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
		USN-8	As a user, I can place orders with a selected payment method.	I get a success message and confirmation email	High	Sprint2
User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Seller	Product Management	USN-9	As a seller, I can log in to my dashboard and manage my product listings.	I can add/edit/delete products	High	Sprint3
		USN-10	As a seller, I can view and track customer orders.	I see a list of customer orders	Medium	Sprint3
Admin	Admin Dashboard	USN-11	As an admin, I can approve or deactivate sellers.	I can manage seller status from dashboard	High	Sprint3
		USN-12	As an admin, I can manage product listings and user accounts.	I can add/edit/delete any products or users	High	Sprint3