FRONTEND REQUIREMENTS FLOW CHART BY MUHAMMAD NABEEL

ROLL NO : 00302932 DAYS/TIME: THURSDAY -09:00AM - 12:00PM

This document describes the user journey flow for an eCommerce marketplace, focusing on key steps and their technical implementation. It is tailored for building a robust and user-friendly platform.

Below is the complete user journey flow for an eCommerce marketplace:

Displays featured categories, popular products, and a search bar.

User selects a category or uses the search bar

User clicks on a product to view its details.

Page includes product description, price, availability, and user reviews.

User adds the product to the cart.

Cart updates dynamically with quantity and price.

User proceeds to the checkout page.

Provides shipping address and selects a delivery option.

User enters payment details.

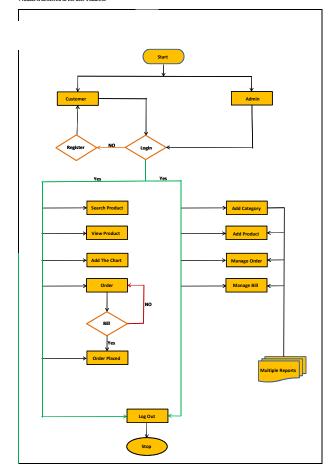
Secure payment gateway processes the transaction.

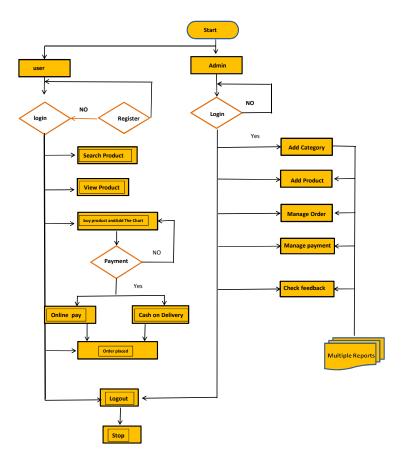
Order details are displayed and sent via email.

User visits the "Order History" section.

Real-time shipment tracking is enabled via API integration.

Product is delivered to the user's address





Frontend Requirements:

Cher receives a notification and can leave a review

User friendly mterface for browsing products

Responsive design for moble and desktop users

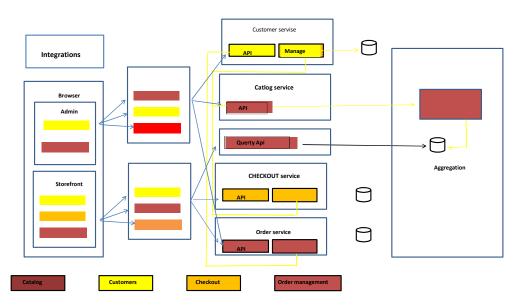
Essential pages Home, Product Listing, Product Details, Cart Checkout, and Order Confirmation

Design System Architecture

Create a high-level diagram showing how your system components itaract. Use too's the pen and paper software like Lucidchart, Figma or Excaldraw For example, a more detalend architecture might include workflows such as

System Architecture Overview Diagram: [Frontend (Next.js)] [Sanity CMS] → [Product Data API] [Third-Party API] → [Shipment Tracking API] [Payment Gateway]

System Architecture



Components and Roles:

Frontend (Next.js);

- 1. Displays the user interface for browsing products, managing the cart, and placing orders.
- 2. Handles user interactions and communicates with backend services via APIs.

Sanity CMS:

- 1. Acts as the primary backend to manage product data, customer details, and order records.
- 2. Provides APIs for the frontend to fetch and update data.

Product Data API

 $\label{provides} \textbf{Provides endpoints to fetch product listings, details, and inventory status.}$

Third-Party APIs

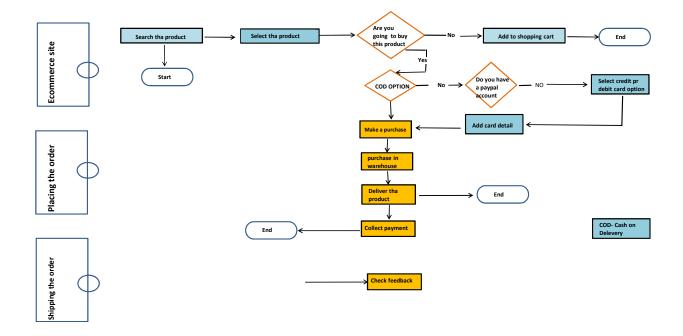
Provides endpoints to fetch product listings, details, and inventory status.

Third-Party APIs:

Integrates services like shipment tracking and payment processing.

Payment Gateway:

Processes user payments securely and provides transaction confirmation



Also make this EDR diagram in your project.

This diagram will define the relationships between entities in your database.

Example Entities:

1. Food Items:

Fields: id, name, price, description, image, categoryld

2. Categories:

Fields id, nate.

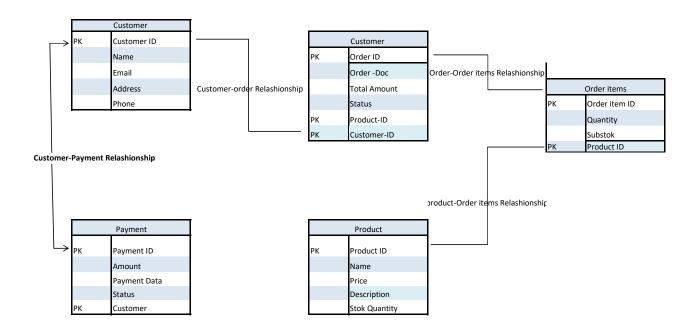
3. Users:

Fields: 10, nase, email, password

4. Orders:

Fields, id, user lit

order Date, status



ENDPOINT	Method	Description	Parameters	Response Example
/api/furniture	GET	Fetch all food items	None	(id: I, name: "Syltherine"}
/api/furnitures/id	GET	Fetch a single furniture item	id (Path)	{ id: 1, name: "Syltherine"}
/api/furnitures	POST	Add a new furniture item	name, price, category (Body)	(success: true, id: 5 }
/api/furnitures/:id	PUT	Update a furniture item	id (Path), name, price (Body)	{success: true }
/api/furnitures/id	DELETE	Delete a furniture item	id (Path)	{success: true}
/api/categories	GET	Fetch all furniture categories	None	{ categories: ["Jane Smith"]}