

Hacakathon 3 Day 2 Planning The Technical Foundation

“Marketplace Technical Foundation – [Ecommerce]”

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.

Flowchart Overview

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

Home Page:

User lands on the homepage.

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

Product Browsing:

User selects a category or uses the search bar.

Products are displayed with options to filter by price, brand, or ratings.

Product Details:

User clicks on a product to view its details.

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

Add to Cart:

User adds the product to the cart.

Cart updates dynamically with quantity and price.

Checkout:

User proceeds to the checkout page.

Provides shipping address and selects a delivery option.

Payment:

User enters payment details.

Secure payment gateway processes the transaction.

Order Confirmation:

Order details are displayed and sent via email.

Order status is updated in the backend.

Shipment Tracking:

User visits the “Order History” section.

Real-time shipment tracking is enabled via API integration.

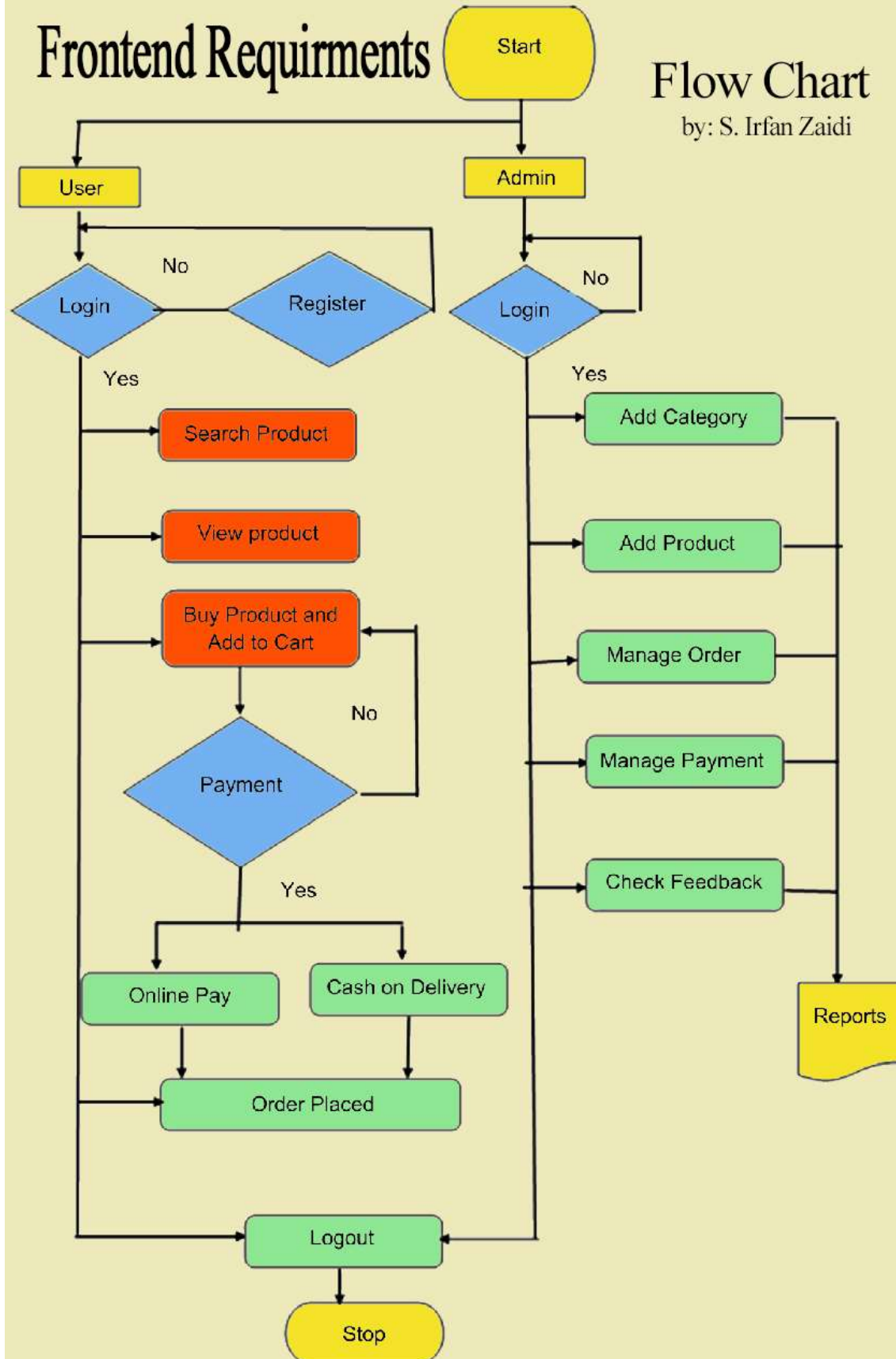
Delivery:

Product is delivered to the user’s address.

Frontend Requirments

Flow Chart

by: S. Irfan Zaidi



Frontend Requirements:

User receives a notification and can leave a review.

User-friendly interface for browsing products.

Responsive design for mobile and desktop users.

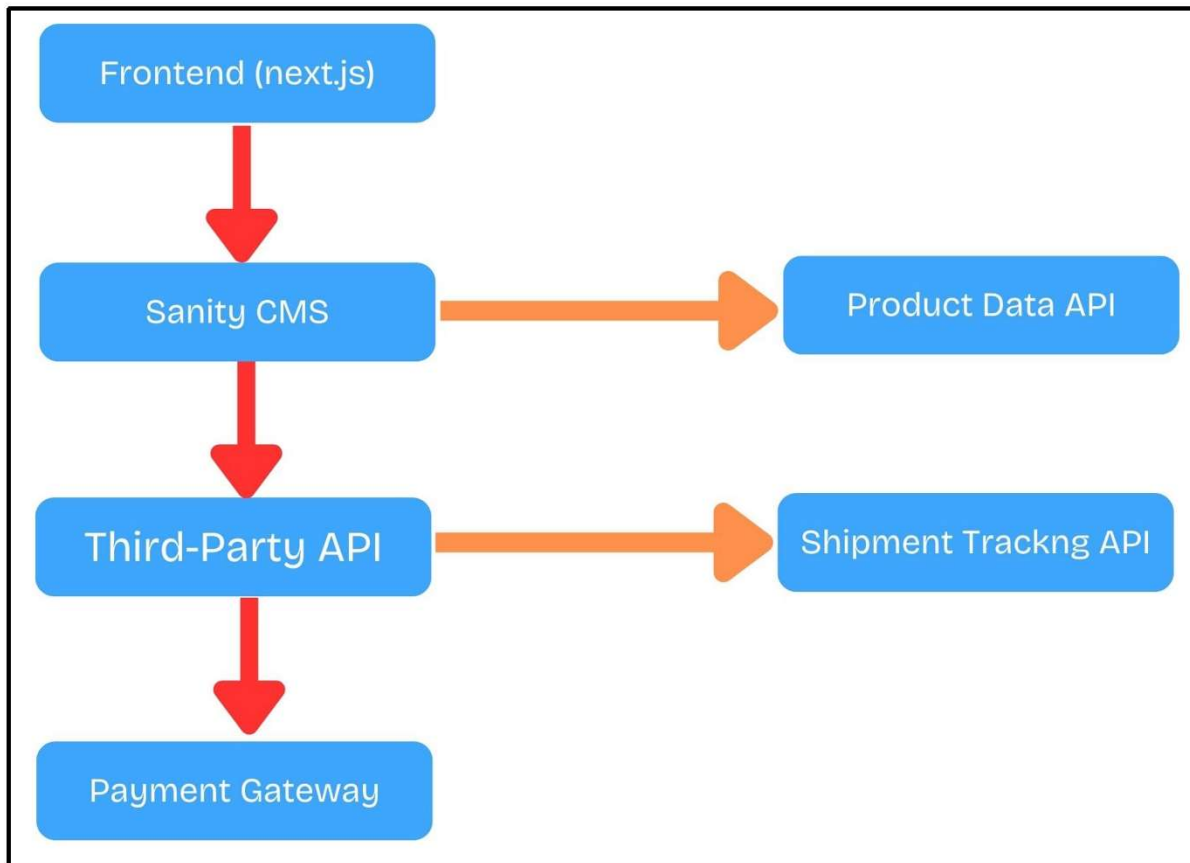
Essential pages: Home, Product Listing, Product Details, Cart, Checkout, and Order Confirmation

Design System Architecture

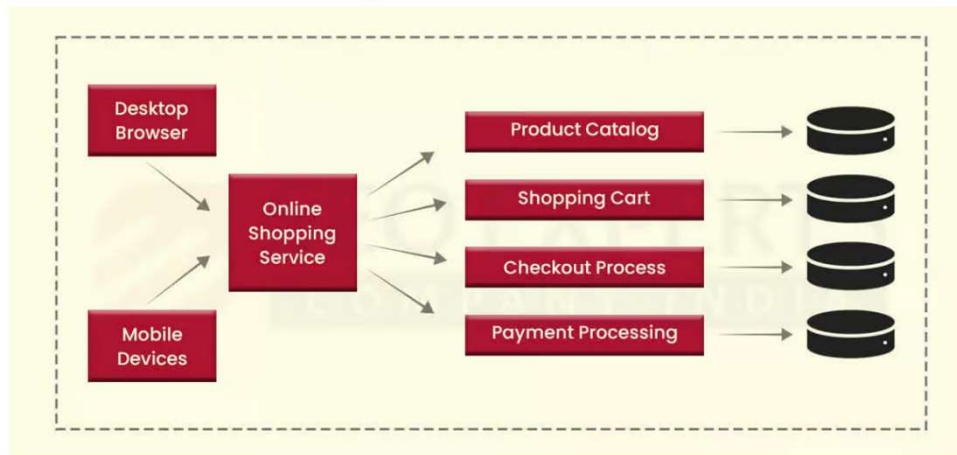
Create a high-level diagram showing how your system components interact. Use tools like pen and paper or software like Lucidchart, Figma or Excalidraw. For example, a more detailed architecture might include workflows such as:

System Architecture Overview

Diagram:



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.

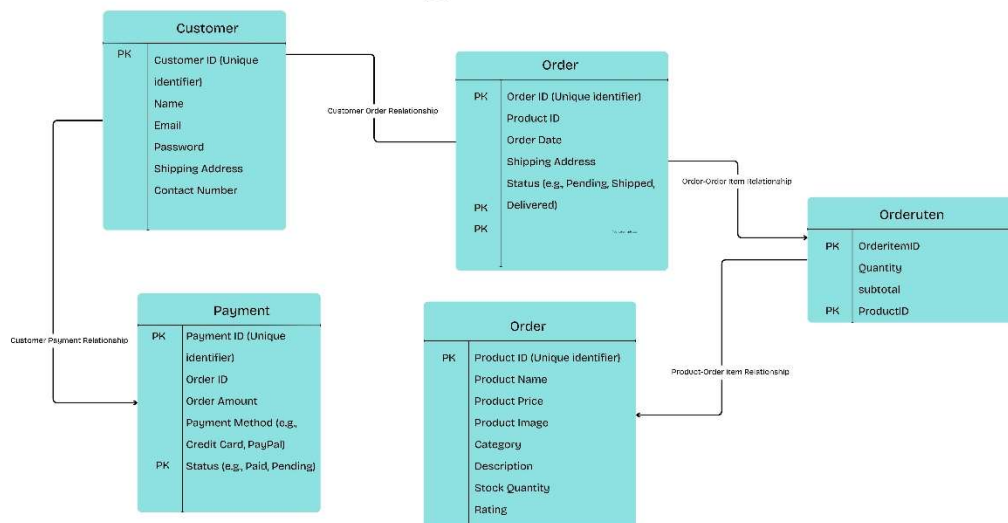
Product Data API:

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

Third-Party APIs:

Integrates services like shipment tracking and payment processing.

ER Diagram



API Endpoints

API Endpoints

Endpoint	Method	Response
/api/create-order	POST	Creates a new order when someone buys something
/api/orders	GET	Fetches all orders (admin stuff)
/api/shipengine/create-label	POST	Makes a shipping label for orders
/api/shipengine/get-rates	GET	Checks shipping costs
/api/shipengine/track-shipment	GET	Tracks where a shipment is
/api/track-orders	GET	Lets users see all of their orders
/api/send/confirmation-email	POST	Sends an email to confirm an order
/api/reviews/[productId]	POST	Adds a review for a product
/api/reviews/[productId]	GET	Fetches reviews for a product

Sanity Schema.js

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    "description": "This stylish green bomber jacket offers a sleek and modern twist on a classic design. Made from soft and comfortable fabric, it features snap buttons and ribbed cuffs, giving it a sporty yet
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refined look. The minimalist style makes it perfect for layering over casual t-shirts or hoodies. Whether you're out with friends or just lounging, this jacket provides a laid-back yet fashionable vibe. Its muted green color adds a subtle, earthy tone that pairs well with a variety of outfits, making it a versatile addition to your casual wardrobe."

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```

personalized fit and a large front pocket for added convenience. The bright white color is perfect for a fresh, casual style and pairs well with various bottoms like jeans, joggers, or shorts. Whether worn for lounging or as part of an everyday outfit, this hoodie provides comfort and versatility with a modern, relaxed flair.",

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"description": "This sleek black button-down shirt is the epitome of style and versatility. Designed with a tailored fit, it provides a sharp, refined look that's perfect for both professional and casual settings. The long sleeves and crisp collar offer a classic silhouette, while the lightweight fabric ensures comfort throughout the day. Whether worn at the office, for a dinner out, or dressed down with jeans, this black shirt adds a polished touch to any outfit. A must-have wardrobe staple for those who appreciate clean lines and timeless style.",

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standout graphic design. Made with soft, breathable fabric, this t-shirt combines comfort with statement
style. The eye-catching \"Courage\" graphic on the front makes it a perfect addition to any casual
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  "description": "These Loose Fit Bermuda Shorts are designed for comfort and laid-back style. Made from lightweight, breathable fabric, these shorts offer a relaxed fit that hits just above the knee. The versatile design features a classic waistband with belt loops, side pockets, and a simple yet stylish look perfect for casual outings or beach days. Pair them with your favorite t-shirt or tank for a cool and comfortable summer outfit.",

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"description": "This men's plaid shirt combines timeless style and comfort, featuring a bold red, navy, and white checkered pattern. With a classic button-down collar and long sleeves, it offers a relaxed fit for easy wear. Made from soft, breathable fabric, this shirt is perfect for casual outings, weekends, or layering over a t-shirt. Its versatile design ensures it pairs well with jeans or chinos, making it a wardrobe essential for any season.",

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polo blends elegance with a casual touch.\\n\\nKey features:\\n\\nMade with durable and lightweight  
material\\nAvailable in a variety of colors and sizes\\nEasy to pair with jeans, chinos, or shorts for a  
polished look\\nIdeal for work, casual outings, or weekend wear\\nStay effortlessly stylish with this must-  
have polo shirt!"  
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Workflow Diagram

