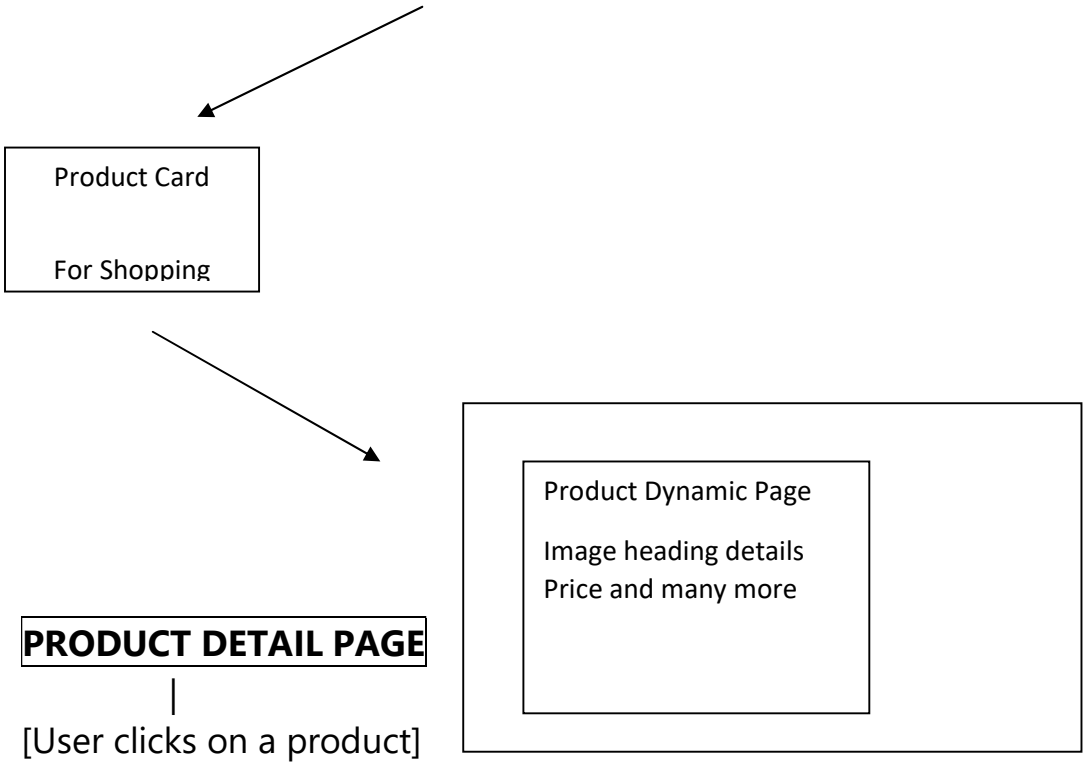
System Architecture:

☺ User Come and click any product:



PRODUCT DETAIL PAGE

|

[User clicks on a product]

[Redirected to dynamic product page]

|

[Product details (image, price, description, color, size)]

|

[User clicks "Add to Cart"]

|

[User moves back if not interested]

Add to Cart

[User clicks "Add to Cart"]

|

[Dynamic page opens with selected products added to cart]

|

[Each product displayed with details (name, quantity, price)]

|

[User clicks "Checkout" button]

CHECKOUT PAGE

[User clicks "Checkout" button]
|
[User is redirected to checkout page]
|
[Checkout page displays order summary, shipping info, and payment options]

SHIPPING SMS

[User completes payment and receives confirmation]
|
[Order details (products, price, user ID) stored in **Sanity CMS**]
|
[SMS sent to user with confirmation and tracking details]

PAYMENT

[User selects payment method on checkout page]
|
[Payment info is processed (credit card, PayPal, etc.)]
|
[Payment confirmation is sent to the user]

RESPONSIVE DESIGNS (TAILWIND CSS)

I make my website responsive with Tailwind, use classes like sm:, md:, lg:, and xl: for different screen sizes..

SIGHN UP

1. User enters name, email, phone number, and password.
2. System validates the input (checks for errors, duplicate email, etc.).
3. A unique **User ID** is generated for the new account.
4. User data is securely stored in the **database (e.g., Sanity CMS.)**.
5. User enters OTP to verify their phone number.
6. After successful verification, the user is redirected to the shop rout.
7. A **confirmation email/SMS** is sent with login details.

Signup Schema (Sanity CMS)

- userId (Unique User ID)
- name (Full Name)
- email (User Email)
- phone (Phone Number)
- password (Hashed Password)
- createdAt (Account Creation Date)
- role (User Role: Admin, Customer)

PRODUCT WITH DATABASE

1)Sanity CMS is integrated into Next.js.
2) Products are defined in the schema and added via Sanity Studio.
3) Next.js fetches product data dynamically from Sanity.

Product Schema Fields

- id (Unique Product ID)
- name (Product Name)
- description (Product Description)
- price (Product Price)
- currency (Currency Type)
- image (Product Image)

• category (Product Category)
• stock (Available Stock)
• rating (Product Rating)
• reviews (Total Reviews)

Add to Cart Process

1. User Clicks "Add to Cart"
o A unique order ID is generated.
o The user ID is linked to the order.
o Product details (id, name, price, quantity, image, etc.) are stored in cms.
2. Check for Duplicates
o If the product already exists in the cart, only the quantity is updated instead of adding a duplicate entry.
o If it's a new product, it gets added as a new cart item.
3. Store Data in Sanity CMS
o The cart details (order ID, user ID, product info, total price, timestamp) are saved in Sanity CMS.
o The cart remains stored even if the user refreshes the page.

Cart Schema Fields

o orderId (Unique Order ID)
o userId (User who added the product)
o products (List of products in the cart)
o totalPrice (Total amount for all cart items)
o createdAt (Cart creation timestamp)
o updatedAt (Last modification timestamp)

Checkout & Shipment Process (Using ShipEngine)(3rd-party API -)

1. User Proceeds to Checkout
• After adding items to the cart, the user clicks "Checkout".

• The system validates the cart (ensuring items are in stock).
• The user enters shipping details (Name, Address, Phone, Email).
• A unique shipment ID is generated via ShipEngine.
2. Integrating ShipEngine in the Project
• Install ShipEngine API in the backend:
• Configure API with ShipEngine credentials to create and track shipments.
• Send user shipping details to ShipEngine, which returns:
o Tracking ID
o Estimated Delivery Date
o Shipment Status (Pending, Shipped, Delivered, etc.)
3. Store Shipment Data in Sanity CMS
• Once ShipEngine generates a shipment, the details are saved in Sanity CMS.
• The order's status updates based on ShipEngine's response.
4. How It Appears to the User
• The order confirmation page displays:
o Order ID
o Shipping Details (Name, Address, Contact)
o Tracking ID
o Shipment Status (Pending → Shipped → Out for Delivery → Delivered)
Shipment Schema (Sanity CMS)
• shipmentId (Unique ID from ShipEngine)
• orderId (Order ID from checkout)
• userId (User who placed the order)
• trackingId (Tracking code from ShipEngine)
• shippingAddress (User's address details)
• status (Pending, Shipped, Delivered, etc.)
• estimatedDelivery (Expected delivery date)
• carrier (Shipping provider: FedEx, UPS, etc.)
• createdAt (Timestamp when shipment was created)
• updatedAt (Timestamp when status updates)