***Roadmap for Day 2 Hackathon Task***

**1. Project Overview**

* **Frontend:** Next.js, React, Tailwind CSS, ShadCN UI, TypeScript/JavaScript.
* **Backend:** Sanity CMS, Node.js, Express.js.
* **APIs:** ShipEngine (Shipment Tracking), Stripe (Payment), Sanity (Product Management).
* **Database:** MongoDB/Firebase for user and order management.

**2. Visual Roadmap**

**Phase 1: Frontend Development**

1. **Home Page Design**
   * **Header:** Social media icons (Facebook, Instagram, WhatsApp, LinkedIn), Cart 🛒 icon, Search bar.
   * **Categories:** Men, Women, Kids, Accessories.
   * **Product Listings:** Dynamic cards with product details (image, name, price, stock, Add to Cart button).
2. **Product Page**
   * **Details:** Name, image, price, discount, stock, sizes, colors, description.
   * **Add to Cart:** Real-time updates using **Context API**.
3. **Cart Page**
   * **Details:** Product name, quantity, price, total cost, discounts.
   * **Checkout Button:** Redirects to the payment page.
4. **Checkout Page**
   * **Payment Options:** Stripe (Credit/Debit Cards), JazzCash, EasyPaisa.
   * **Order Summary:** Product details, total cost, delivery address.
5. **Tracking Page**
   * **Shipment Status:** Pending, Shipped, Out for Delivery, Delivered.
   * **Tracking ID:** Generated using **ShipEngine API**.

**Phase 2: Backend Development**

1. **Sanity CMS Integration**
   * **Schemas:**
     + **Product Schema:** Name, price, stock, image, description, colors, sizes.
     + **Shipment Schema:** Tracking ID, status, delivery address.
     + **Delivery Schema:** Delivery date, customer feedback.
     + **User Schema:** Name, email, password, order history.
2. **Context API**
   * **State Management:** Cart items, user authentication, product details.
   * **Real-Time Updates:** Cart updates, shipment tracking.
3. **Payment Integration**
   * **Stripe API:** Secure payment processing.
   * **Order Confirmation:** Email sent to the customer after successful payment.
4. **Shipment Tracking**
   * **ShipEngine API:** Real-time tracking updates.
   * **Notifications:** Email/SMS notifications for shipment status.

**Phase 3: Customer Interaction Points**

1. **Product Interaction**
   * **Frontend:** Browse products, add to cart, view details.
   * **Backend:** Fetch product data from Sanity CMS.
2. **Cart Interaction**
   * **Frontend:** Add/remove items, view cart details.
   * **Backend:** Sync cart data with the server.
3. **Checkout and Payment**
   * **Frontend:** Select payment method, enter details.
   * **Backend:** Process payment via Stripe API.
4. **Shipment Tracking**
   * **Frontend:** View tracking status on the tracking page.
   * **Backend:** Fetch real-time updates from ShipEngine API.
5. **Delivery**
   * **Frontend:** Confirm delivery, provide feedback.
   * **Backend:** Update delivery status in the database.

**3. Visual Structure**

**Frontend Flow**

Copy

Home Page → Product Page → Add to Cart → Cart Page → Checkout Page → Payment → Tracking Page → Delivery Confirmation

**Backend Flow**

Copy

Sanity CMS (Product Data) → Context API (State Management) → Stripe API (Payment) → ShipEngine API (Shipment Tracking) → Database (Order History)

**4. Key Milestones**

1. **Day 2 Morning:**
   * Complete **Home Page** and **Product Page** design.
   * Implement **Add to Cart** functionality using Context API.
2. **Day 2 Afternoon:**
   * Integrate **Sanity CMS** for product management.
   * Build **Checkout Page** and integrate **Stripe API** for payments.
3. **Day 2 Evening:**
   * Implement **Shipment Tracking** using **ShipEngine API**.
   * Design **Tracking Page** and send real-time notifications.

**5. Tools and Technologies**

* **Frontend:** Next.js, React, Tailwind CSS, ShadCN UI.
* **Backend:** Sanity CMS, Node.js, Express.js.
* **APIs:** ShipEngine, Stripe, Sanity.
* **Database:** MongoDB/Firebase.
* **State Management:** Context API.

**6. Visual Diagram**

Below is a **text-based diagram** to represent the flow:

Copy

[Home Page]

↓

[Product Page] → [Add to Cart] → [Cart Page]

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[Checkout Page] → [Payment (Stripe API)]

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[Tracking Page (ShipEngine API)]

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[Delivery Confirmation]

**7. Deliverables for Day 2**

1. **Frontend:**
   * Home Page, Product Page, Cart Page, Checkout Page, Tracking Page.
2. **Backend:**
   * Sanity CMS integration with 4 schemas.
   * Context API for state management.
   * Stripe API for payments.
   * ShipEngine API for shipment tracking.
3. **APIs:**
   * Fetch product data from Sanity.
   * Process payments using Stripe.
   * Track shipments using ShipEngine.