**Technical Roadmap - Peerzada Store (Day 2)**

**Introduction:**

This document outlines the technical roadmap for the development and implementation of Peerzada Store, an E-commerce platform specialising in customised gifts. The roadmap ensures alignment with business goals, detailed technical planning, and efficient execution of workflows to deliver a high-quality, scalable, and user-friendly platform.

**Project Milestones:**

**Milestone 1: Set Up Sanity CMS Backend**

* **Objective:** Establish a robust backend using Sanity CMS to manage product, order, and customer data.
* **Tasks:**
  1. Design and implement schemas for:
     + **Products:**
       - Fields: ProductID, Name, Category, Price, Stock, CustomisationOptions.
     + **Orders:**
       - Fields: OrderID, CustomerID, Products, TotalAmount, Status, Timestamp.
     + **Customers:**
       - Fields: CustomerID, Name, ContactInfo, City, OrderHistory.
     + **Packaging Options:**
       - Fields: PackageID, DesignName, Material, Price, Availability.
  2. Configure Sanity’s Content Studio for ease of data entry and management.
  3. Set up roles and permissions for secure backend access.
* **Deliverables:**
  1. Sanity CMS schemas for all entities.
  2. Functional backend with a Content Studio interface.

**Milestone 2: Develop Frontend Pages (Next.js)**

* **Objective:** Create a responsive and user-friendly interface for customers to browse, customise, and order products.
* **Tasks:**
  1. Design and implement the following pages:
     + **Home Page:**
       - Hero banner with CTAs (e.g., "Start Customising Now").
       - Category tiles for Wallets, Keychains, Pens, Frames, and Packaging.
       - Featured Products carousel.
     + **Product Listing Page:**
       - Display product categories with filtering and sorting options.
     + **Product Details Page:**
       - Customisation options with live preview.
       - Add-to-cart functionality.
     + **Cart Page:**
       - List of added products with edit/remove options.
       - Display total amount and estimated delivery.
     + **Checkout Page:**
       - Form for delivery details and payment options.
     + **Order Confirmation Page:**
       - Display order summary and tracking details.
  2. Ensure responsive design for seamless access on mobile and desktop devices.
  3. Integrate frontend with Sanity CMS to dynamically fetch and display data.
* **Deliverables:**
  1. Fully functional and responsive frontend pages.
  2. Dynamic integration with Sanity CMS.

**Milestone 3: API Integration**

* **Objective:** Enable core functionalities like payment processing and shipment tracking through API integration.
* **Tasks:**
  1. Integrate APIs for:
     + **Payment Gateway:**
       - Secure payment processing (e.g., Cash on Delivery, Cards, Bank Transfer).
     + **Shipment Tracking:**
       - Fetch real-time delivery updates via third-party APIs.
  2. Develop custom endpoints to:
     + Fetch products: /products (GET).
     + Create orders: /orders (POST).
     + Track shipments: /shipment (GET).
  3. Test all API interactions for reliability and security.
* **Deliverables:**
  1. Integrated payment gateway.
  2. Real-time shipment tracking system.

**Milestone 4: Test and Refine Workflows**

* **Objective:** Validate the platform’s functionality, usability, and performance.
* **Tasks:**
  1. Conduct end-to-end testing:
     + Product browsing, customisation, and ordering workflows.
     + Payment processing and shipment tracking.
  2. Perform usability testing to identify and fix UI/UX issues.
  3. Optimize loading times and responsiveness.
  4. Address any bugs or inconsistencies found during testing.
* **Deliverables:**
  1. Comprehensive test report.
  2. Optimised and bug-free platform.

**Milestone 5: Deployment**

* **Objective:** Launch Peerzada Store on a secure and scalable hosting environment.
* **Tasks:**
  1. Set up a hosting environment (e.g., Vercel for frontend, Sanity’s cloud infrastructure for backend).
  2. Deploy the platform with SSL for secure connections.
  3. Configure DNS settings for a custom domain (e.g., peerzadastore.com).
  4. Monitor live performance and address post-launch issues.
* **Deliverables:**
  1. Fully deployed E-commerce platform.
  2. Monitoring setup for performance tracking.

**Key Features to Implement:**

* **Customisation Studio:**
  + Interactive tool for real-time customisation previews.
* **Luxurious Gift Packaging:**
  + Dynamic packaging options with customisable tags and ribbons.
* **Karachi Express Delivery:**
  + Same-day delivery option for Karachi customers.
* **Subscription Plans:**
  + Monthly/quarterly curated gift boxes.

**Technical Stack:**

* **Frontend:** Next.js
* **Backend:** Sanity CMS
* **Payment Gateway:** Third-party API (e.g., Stripe, local banking solutions).
* **Shipment Tracking:** Integration with local courier APIs.
* **Hosting:** Vercel (frontend), Sanity Cloud (backend).

**Timeline:**

* **Week 1:** Set up Sanity CMS and develop schemas.
* **Week 2:** Build and test frontend pages.
* **Week 3:** Integrate APIs and validate workflows.
* **Week 4:** Conduct end-to-end testing and deploy the platform.