MARKETPLACE TECHNICAL FOUNDATION

Comforty

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TECHNICAL PLAN

TECHNICAL REQUIREMENTS

Frontend Requirements

- Framework & Libraries:

  - Next.js for server-side rendering and improved   performance.

  - Tailwind CSS for rapid and customizable UI development.

  - Responsive design ensuring seamless access across devices (mobile, tablet, desktop).

- **Essential Pages:**

  - Home, Products, Product Details, Help and Support, Contact, Cart, Checkout, and Order Confirmation pages.

- **Interactive Features:**

  - Product sliders using Swiper.js.

  - Smooth animations with GSAP and Framer Motion for enhanced user engagement.

  - Dynamic filtering and sorting options for products.

Backend Requirements

- ## Sanity CMS:

  - Manage dynamic content like product listings, blog posts, and FAQs.

  - Real-time updates for product inventory and details.

Third-Party APIs

- ## API Integrations:

  - Third-party APIs for shipment tracking.

  - Payment gateways for secure transactions.

  - Email and SMS notifications for order confirmations and updates.

BUSINESS GOALS

Business Goals

- **Broader Audience Reach:**
  Expand marketplace visibility beyond geographical constraints to attract a diverse global customer base.

- **Increase Sales Potential:**
  Provide a seamless shopping experience to encourage repeat customers and boost overall sales.

- **Economic Contribution:**
  Promote local businesses and artisans by offering a platform to showcase their products, contributing to Pakistan's economic growth.

SYSTEM ARCHITECTURE

System Architecture

USER

SIGN UP

User add items to cart

User click on single product for details

PRODUCT BROWSING

CART

SINGLE PRODUCT

Api request sent to fetch products from sanity

Proceed to checkout

Api request sent to fetch details of product from sanity

API

CHECKOUT

Details fetched from sanity

Products fetched from sanity

Order status updates fetched via 3rd party api

Sign up info stored in

SANITY

Order details saved in sanity

Details displayed on frontend

Products displayed on frontend

Order status displayed to the user

Confirmation sent to user

FRONTEND

CONFIRMATION

API ENDPOINTS

Api Endpoints

Excel File:

Api Endpoints.xlsx

API ENDPOINTS

Endpoint Name	Method	Description	Response/Payload
/categories	GET	Fetch all product categories	Category details (id, name)
/products	GET	Fetch all products from Sanity	Product details (id, name etc)
/products/{id}	GET	Fetch a specific product by its id	Product details (id, name etc)
/products	POST	Add a new product	Product details (id, name etc)
/orders	POST	Create a new order in Sanity	Customer info, product details etc
/orders/{id}	GET	Fetch details of an order by its id	Order details (id, product etc)
/shipments/{orderId}	GET	Track shipment status via a third-party API.	Shipment details (shipment id, order id etc)
/payments	POST	Process a payment for an order.	Payment details (order id, payment method etc)

SANITY SCHEMA

Sanity schema

```javascript
//--==== FOR CATEGORIES ====--//
export const categorySchema = {
    name: 'categories',
    title: 'Categories',
    type: 'document',
    fields: [
        {
            name: 'title',
            title: 'Category Title',
            type: 'string',
        },
        {
            name: 'image',
            title: 'Category Image',
            type: 'image',
        },
        {
            title: 'Number of Products',
            name: 'products',
            type: 'number',
        }
    ],
};
```

```
24  ,,
25      //--==== FOR PRODUCTS ====--//
26      export const productSchema = {
27        name: "products",
28        title: "Products",
29        type: "document",
30        fields: [
31          {
32            name: "title",
33            title: "Product Title",
34            type: "string",
35          },
36          {
37            name: "price",
38            title: "Price",
39            type: "number",
40          },
41          {
42            title: "Price without Discount",
43            name: "priceWithoutDiscount",
44            type: "number",
45          },
46          {
47            name: "badge",
48            title: "Badge",
49            type: "string",
50          },
51          {
52            name: "image",
53            title: "Product Image",
54            type: "image",
55            options: {
56              hotspot: true,
57            },
58          },
```

```
59        {
60          name: "category",
61          title: "Category",
62          type: "reference",
63          to: [{ type: "categories" }],
64        },
65        {
66          name: "description",
67          title: "Product Description",
68          type: "text",
69        },
70        {
71          name: "inventory",
72          title: "Inventory Management",
73          type: "number",
74        },
75        {
76          name: "tags",
77          title: "Tags",
78          type: "array",
79          of: [{ type: "string" }],
80          options: {
81            list: [
82              { title: "Featured", value: "featured" },
83              {
84                title: "Follow products and discounts on Instagram",
85                value: "instagram",
86              },
87              { title: "Gallery", value: "gallery" },
88            ],
89          },
90        },
91      ],
92    };
```

```javascript
//--==== FOR ORDERS =====--//
export const orderSchema = {
    name: "orders",
    title: "Orders",
    type: "document",
    fields: [
        {
            name: "orderNumber",
            title: "Order Number",
            type: "string",
        },
        {
            name: "customer",
            title: "Customer",
            type: "reference",
            to: [{ type: "customers" }],
        },
        {
            name: "products",
            title: "Ordered Products",
            type: "array",
            of: [
                {
                    type: "object",
                    fields: [
                        {
                            name: "product",
                            title: "Product",
                            type: "reference",
                            to: [{ type: "products" }],
                        },
```

```
              {
                name: "quantity",
                title: "Quantity",
                type: "number",
              },
              {
                name: "price",
                title: "Price",
                type: "number",
              },
            ],
          },
        ],
      },
      {
        name: "totalAmount",
        title: "Total Amount",
        type: "number",
      },
      {
        name: "orderDate",
        title: "Order Date",
        type: "datetime",
      },
      {
        name: "status",
        title: "Order Status",
        type: "string",
        options: {
          list: [
            { title: "Pending", value: "pending" },
            { title: "Processing", value: "processing" },
```

```
            { title: "Shipped", value: "shipped" },
            { title: "Delivered", value: "delivered" },
            { title: "Cancelled", value: "cancelled" },
          ],
        },
      },
      {
        name: "paymentMethod",
        title: "Payment Method",
        type: "string",
        options: {
          list: [
            { title: "Credit Card", value: "credit_card" },
            { title: "PayPal", value: "paypal" },
            { title: "Cash on Delivery", value: "cod" },
          ],
        },
      },
      {
        name: "shippingAddress",
        title: "Shipping Address",
        type: "text",
      },
      {
        name: "trackingNumber",
        title: "Tracking Number",
        type: "string",
      },
      {
        name: "notes",
        title: "Additional Notes",
```