Market place Builder Date

Hackathon 2025 Day 2:

Objective

To build a scalable, user-friendly e-commerce plateform focused on selling sustainable and eco-friendly products, ensuring an enviornmentally conscious shopping exprience.

System Architecture Diagram

```
Graph TD
User [User] ----> Signin | clerk
--> [Authentication]
  User ---> [Browses] Frontend
--> [Next.JS]
  Frontend --> [Fetches Data | Sanity
CMS
Frontend ---> | Manges cart |
Use Context API
Frontend ---> | Places Order | stripe
checkOut
```

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Frontend --> |Generates label|
ShipEngine API
Sanity CMS --> |Stores| product
Data
Ship Engine --> |Tracks Order|
order Tracking

Features & Workflow

Frontend

1- User Authentication
- Use clerk for pre-built authentication
- Social logins for ease (Google, facebook)

2- Product Browsing:
- Fetch and display eco-friendly products from Sanity CMS.

3- Cart Mangement:
- Use React Context API for managing cart state.
- Add/remove products, dynamic total calculation.

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4- Checkout process:
- Collect user shipping details and payment via stripe.
- Display confirmation after a successful transaction.

5- Order Tracking:-
- Generate shipping labels using ShipEngine API.
- Allow users to track orders with the label ID.

Backend:-

1- Sanity CMS:
- Manage product and order data using Sanity studio.

2- Custom APIs:
- /api/products: Fetch eco-friendly product details.
- /api/shipping-label: Generate shipping labels with ShipEngine.
- /api/track-order: Track order status using ShipEngine.

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3- Admin panel:
- Use Sainty Studio for data insertion and management.

1 Data Models
Product Schema
Name: Name of the product
category: Type of product
price: product price
stock: Available quality.

Order Schema
Order ID: Unique identifier for each order.
User details: Name, address, contact info.
products: list of purchased items
status: order status (shipped, Delivered)

Tools & Libraries:-

Clerk: for user authentication
sanity CMS: for managing product and other
stripe: payment gateway
React Context Api: for global cart state

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1 Deliverables

1- System Architecture Diagram:-
clear depiction of interactions between components.

2- Sanity Schemas: configured for eco-friendly products and orders.

3- Api Endpoints :- functional endpoints for shipping, tracking and payments.

4- Frontend pages :-

- Homepage for browsing sustainable products.
- login / signup page
- Cart and checkout page
- Order confirmation and tracking page.

5- Portfolio - Ready Submission :- A polished project demonstrating skills in building a niche e-commerce platform.

Signature

Flowchart

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