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## Mentor sir hamzah

# day 4 of hakathone (componnets)

### Dynamic E-Commerce Website for Chairs

## Project Overview

This document outlines the structure and functionality of a dynamic e-commerce website for chairs. The website is built using modern technologies and integrates API endpoints, a search bar, and dynamic content management through Sanity CMS. Additionally, it utilizes ShadCN components for an enhanced user interface.

## Core Features

### Frontend:

- **Home Page:** Displays featured chairs and special deals dynamically fetched from Sanity CMS.
- **Search Functionality:** Enables users to search and filter products efficiently.
- **Product Page:** Shows detailed information about each chair, including price, availability, and reviews.
- **Shopping Cart:** Allows users to add and remove items before proceeding to checkout.
- **Checkout Page:** Secure payment gateway integration for smooth transactions.
- **User Dashboard:** Displays order history and allows users to manage their accounts.
- **Admin Panel:** Provides control over product management, orders, and user activity.

### Backend & API Integration:

- **User Authentication:** Secure login and registration using JWT authentication.
- **Product Management:** CRUD operations for adding, updating, and deleting chairs.
- **Order Processing:** Tracks customer orders and updates order status dynamically.
- **Payment Integration:** Supports Stripe, EasyPaisa, and JazzCash for transactions.

- **API Endpoints:** Connects frontend with the backend for real-time data management.

## Database Structure:

- **Users Table:** Stores user credentials and personal details.
- **Products Table:** Contains product details, stock status, and pricing information.
- **Orders Table:** Keeps track of customer orders and payment statuses.
- **Payments Table:** Records transaction details for financial tracking.

## Technologies Used:

- **Next.js** - For fast and efficient rendering.
- **Sanity CMS** - For dynamic content management.
- **ShadCN Components** - For an elegant and modular UI design.
- **Node.js & Express.js** - For backend logic and API creation.
- **MongoDB / MySQL** - For structured and scalable data storage.
- **Tailwind CSS** - For responsive and modern UI styling.

## Website Workflow

### 1. User Journey:

- User visits the website and browses the products.
- Searches for a specific chair using the search bar.
- Adds selected chairs to the shopping cart.
- Proceeds to checkout and completes the payment.
- Receives order confirmation and tracking details.

### 2. Admin Journey:

- Admin logs in to the dashboard.
- Adds, edits, or removes products from the inventory.
- Monitors and manages customer orders.
- Processes refunds or updates payment statuses.

## Security Measures

- **SSL Encryption:** Ensures secure data transmission.
- **JWT Authentication:** Protects user accounts.
- **Role-Based Access Control:** Restricts admin functionalities from regular users.
- **Regular Backups:** Prevents data loss and ensures smooth recovery.

## Deployment & Hosting

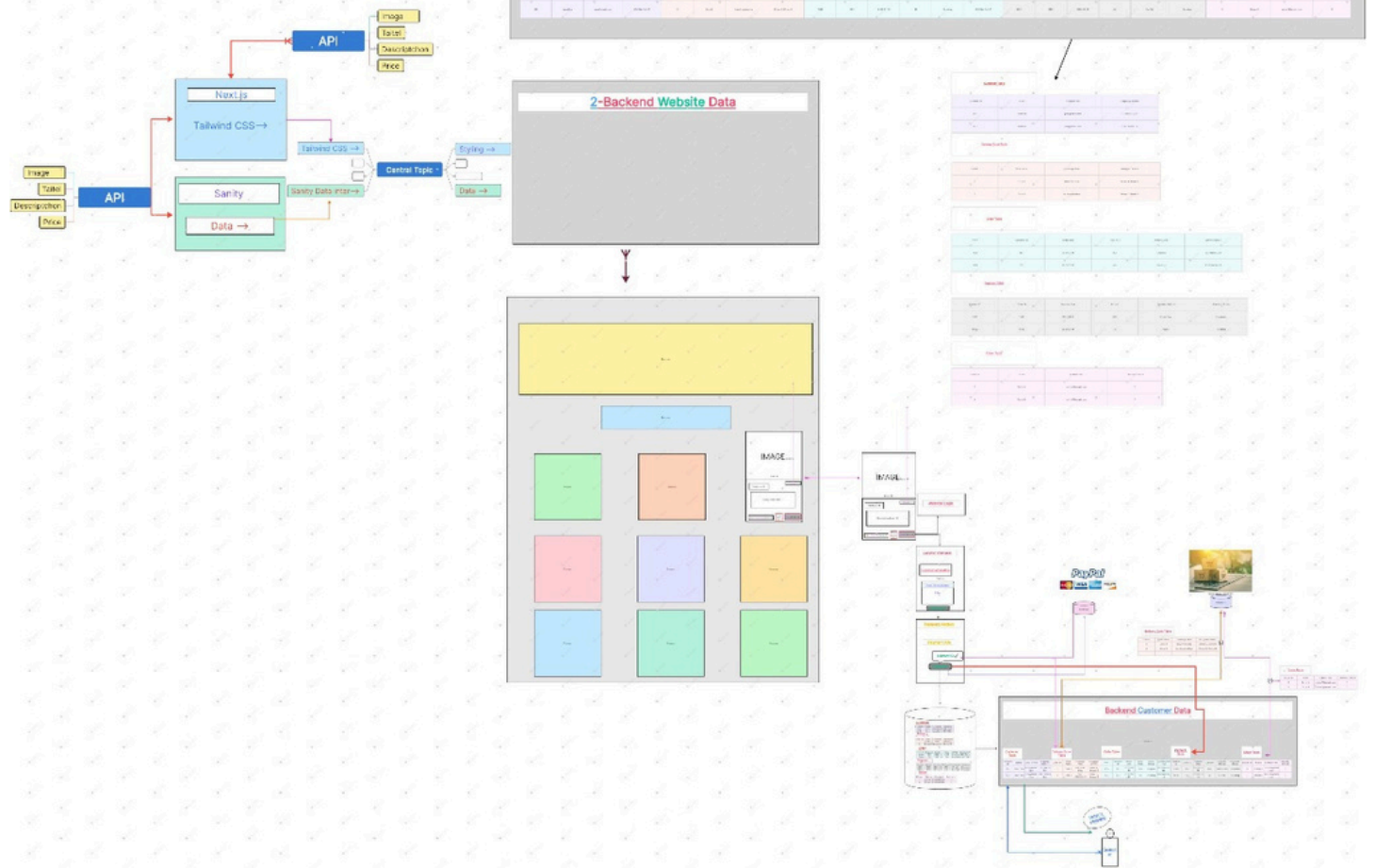
- **Frontend Hosting:** Vercel for seamless Next.js deployment.
- **Backend Hosting:** AWS / DigitalOcean for high-performance backend processing.
- **Database Hosting:** MongoDB Atlas or MySQL on cloud platforms.

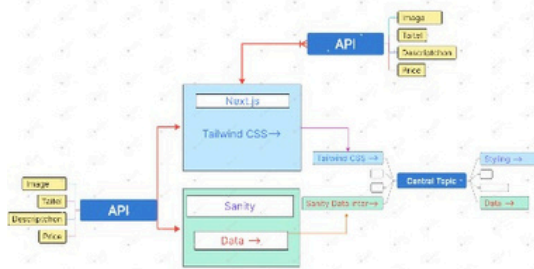
## Conclusion

The diagram illustrates the architecture of a web application, divided into four main sections:

- 1-Backend Customer Data:** This section features a large table with columns for 'Product', 'Product', 'Product', 'Product', and 'Product'. The table contains multiple rows of data, including product names, prices, and other attributes.
- 2-Backend Website Data:** This section shows a grid of product cards, each with an image, title, and price. The cards are arranged in a 2x3 grid.
- 3-Frontend Website:** This section displays a mobile app interface with a header, a list of product cards, and a bottom navigation bar. The product cards are arranged in a 2x3 grid.
- 4-Payment Gateway:** This section shows a payment flow involving PayPal, Stripe, and a database. It includes a 'Payment Gateway' box, a 'Database' box, and a 'Payment' box.

The diagram uses various colors and shapes to represent different components and data flows. For example, the '1-Backend Customer Data' section is represented by a large table, while the '2-Backend Website Data' section is represented by a grid of product cards. The '3-Frontend Website' section is represented by a mobile app interface, and the '4-Payment Gateway' section is represented by a payment flow diagram.





### 1-Backend Customer Data

Customer Data				Product Data				Order Data				Payment Data				Shipping Data			
ID	Name	Email	Phone	ID	Name	Price	Category	ID	Customer ID	Date	Amount	ID	Order ID	Date	Amount	ID	Order ID	Date	Amount
1	John Doe	john.doe@example.com	1234567890	1	Apple iPhone 12	1200	Electronics	1	1	2023-10-27	1200	1	1	2023-10-27	1200	1	1	2023-10-27	1200
2	Jane Smith	jane.smith@example.com	9876543210	2	Samsung Galaxy S21	800	Electronics	2	2	2023-10-28	800	2	2	2023-10-28	800	2	2	2023-10-28	800
3	Bob Johnson	bob.johnson@example.com	5555555555	3	Nike Air Max 270	150	Footwear	3	3	2023-10-29	150	3	3	2023-10-29	150	3	3	2023-10-29	150
4	Alice Brown	alice.brown@example.com	1111111111	4	Adidas Ultraboost 21	200	Footwear	4	4	2023-10-30	200	4	4	2023-10-30	200	4	4	2023-10-30	200
5	Charlie Davis	charlie.davis@example.com	2222222222	5	Jordan 6	180	Footwear	5	5	2023-10-31	180	5	5	2023-10-31	180	5	5	2023-10-31	180

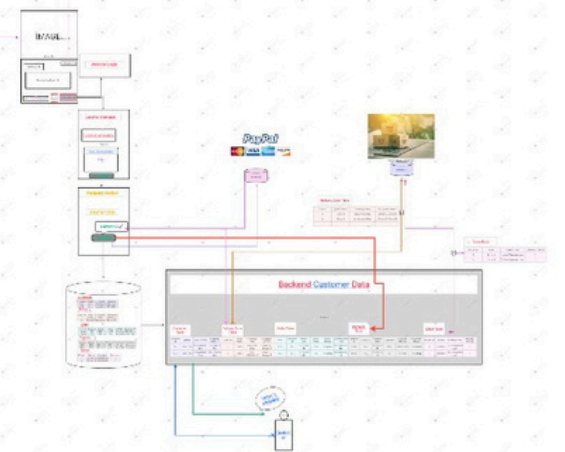
### 2-Backend Website Data

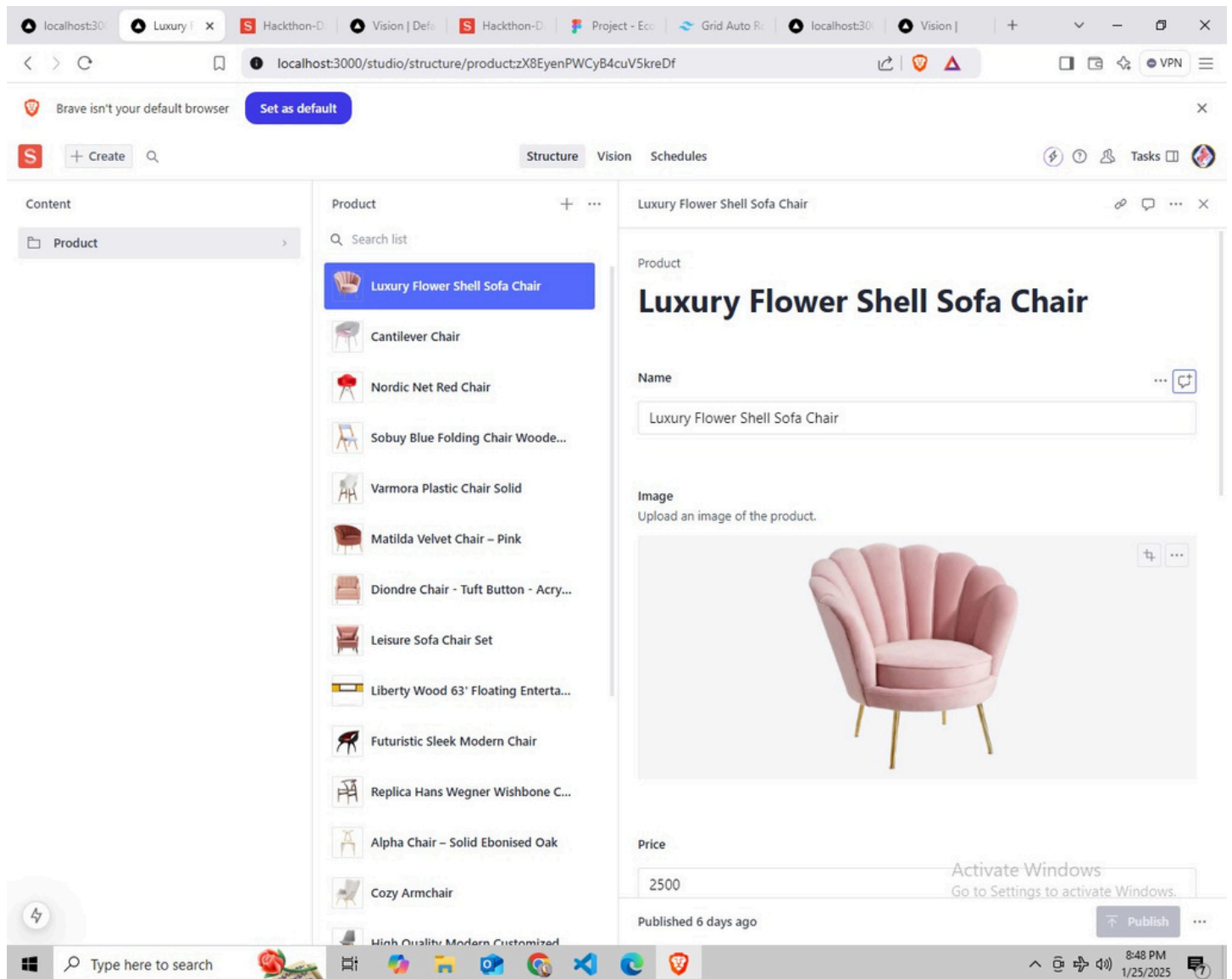
ID	Name	Price	Category
1	Apple iPhone 12	1200	Electronics
2	Samsung Galaxy S21	800	Electronics
3	Nike Air Max 270	150	Footwear
4	Adidas Ultraboost 21	200	Footwear
5	Jordan 6	180	Footwear

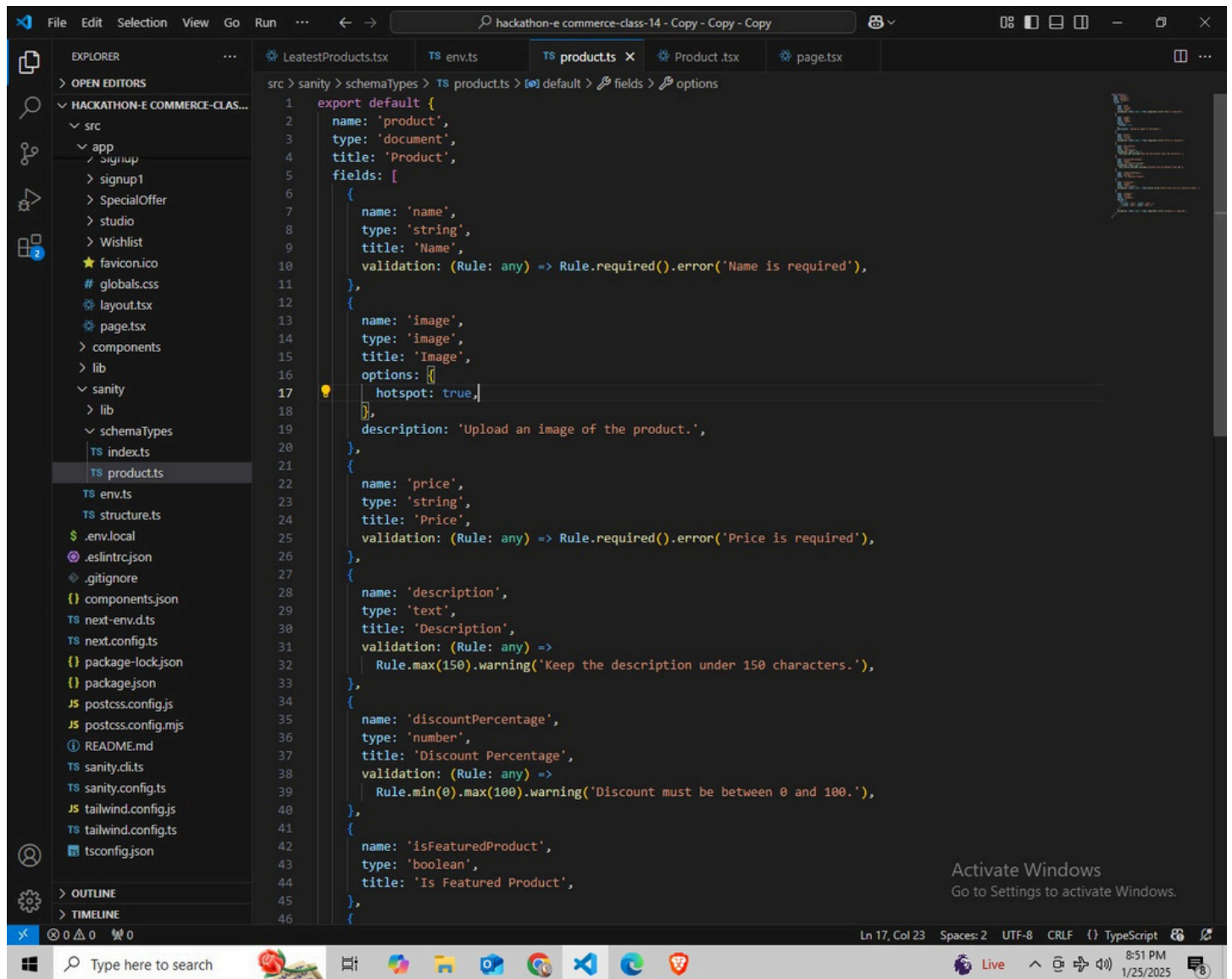


### Backend Data Tables

ID	Name	Price	Category
1	Apple iPhone 12	1200	Electronics
2	Samsung Galaxy S21	800	Electronics
3	Nike Air Max 270	150	Footwear
4	Adidas Ultraboost 21	200	Footwear
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## Latest Products

Latest Products

Best Seller

Featured

Special Offer



Uchiwa Quilted Lounge Chair 1600 ~~1920.00~~



Rapson Thirty-Nine Guest Chair 1300 ~~1495.00~~



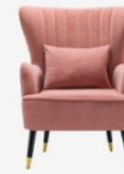
Nautilus Lounge Chair 1450 ~~1624.00~~



Futuristic Sleek Modern Chair 2000 ~~2000.00~~



Matilda Velvet Chair – Pink 600 ~~690.00~~



Leisure Sofa Chair Set 1800 ~~2124.00~~

Activate Windows  
Go to Settings to activate Windows.

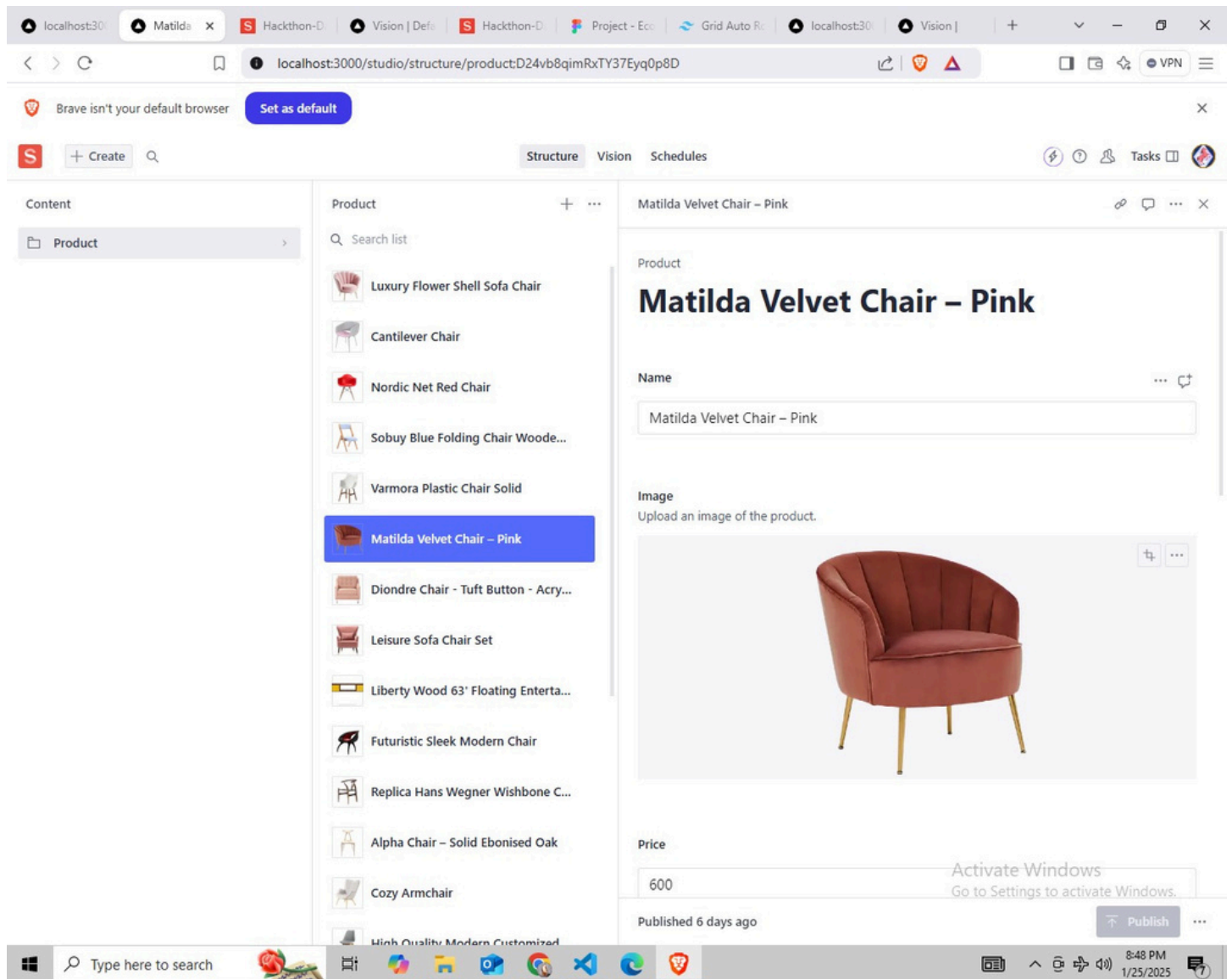
## What Shopex Offer!

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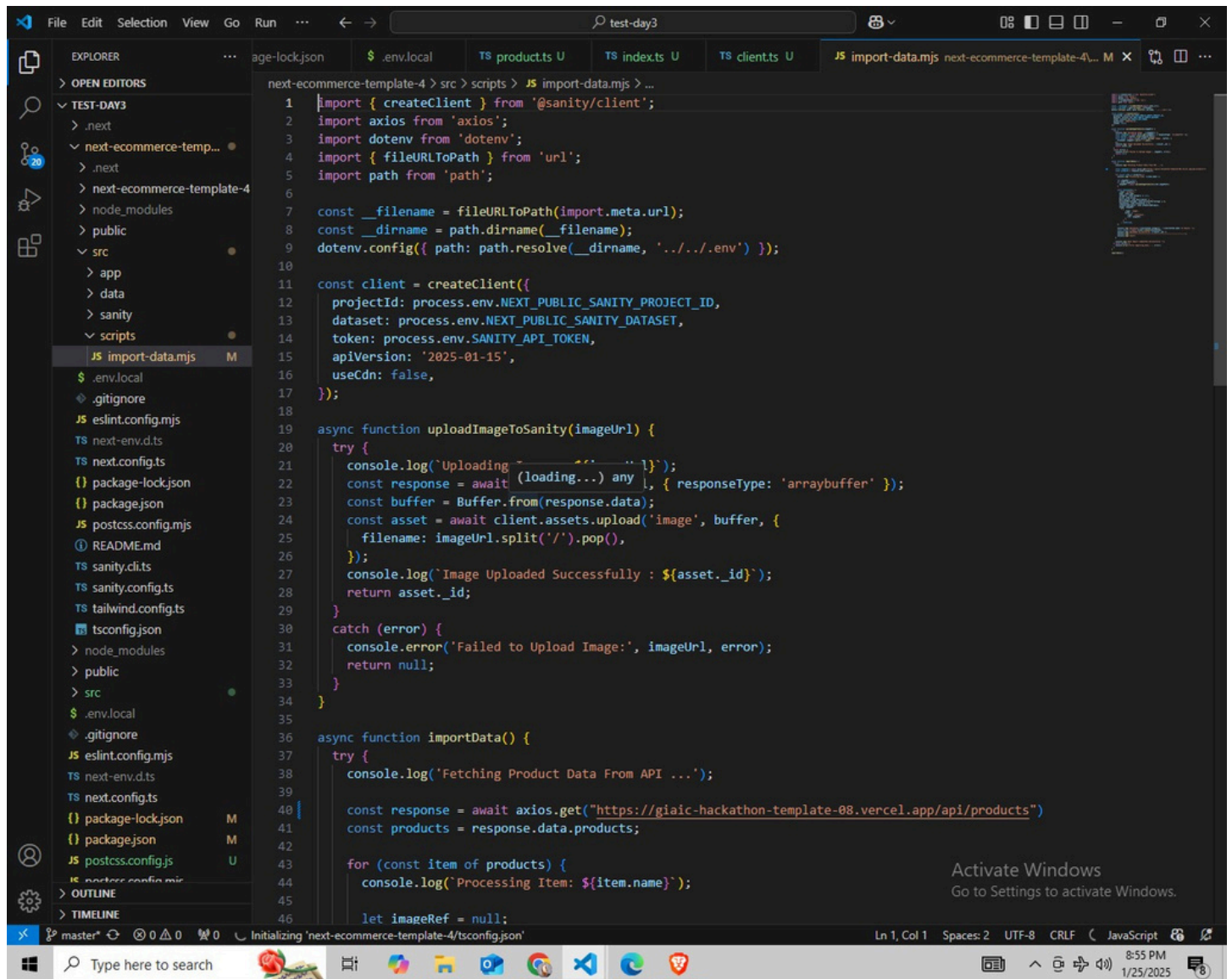


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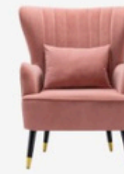
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