DAY 4 - BUILDING DYNAMIC FRONTEND COMPONENTS FOR MARKETPLACE----HECTO

1. Functional Deliverables:

Key Features and Functionalities

1:Header Functionality:

Cart Icons:

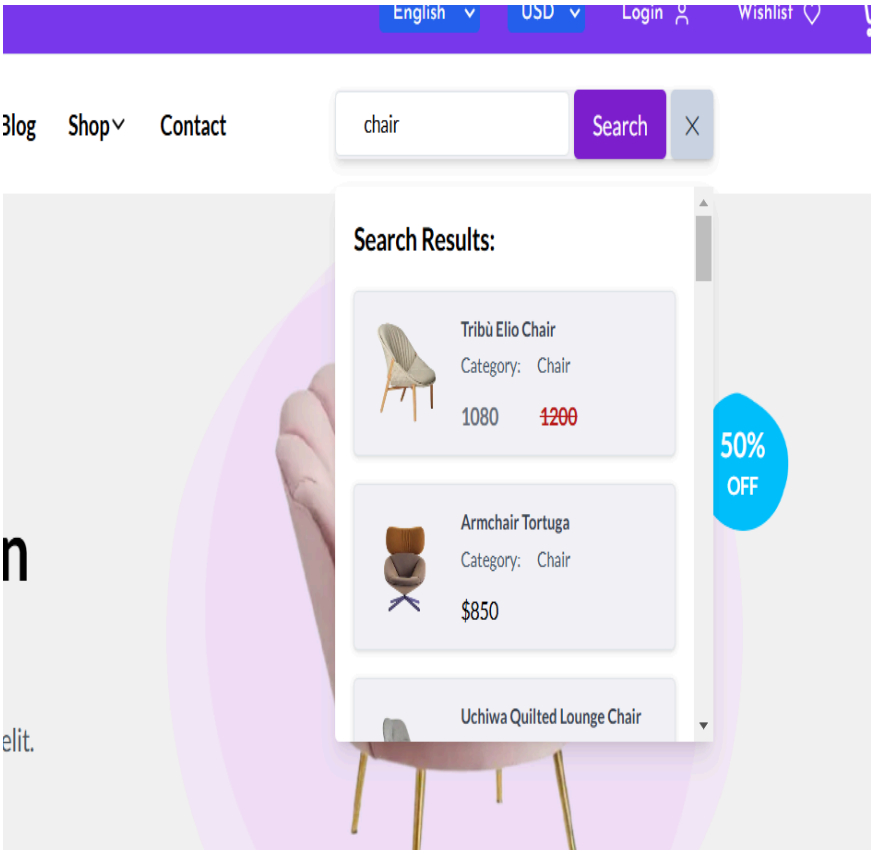
- **These counters automatically update in real-time as products are added or removed from the cart.**

Login:

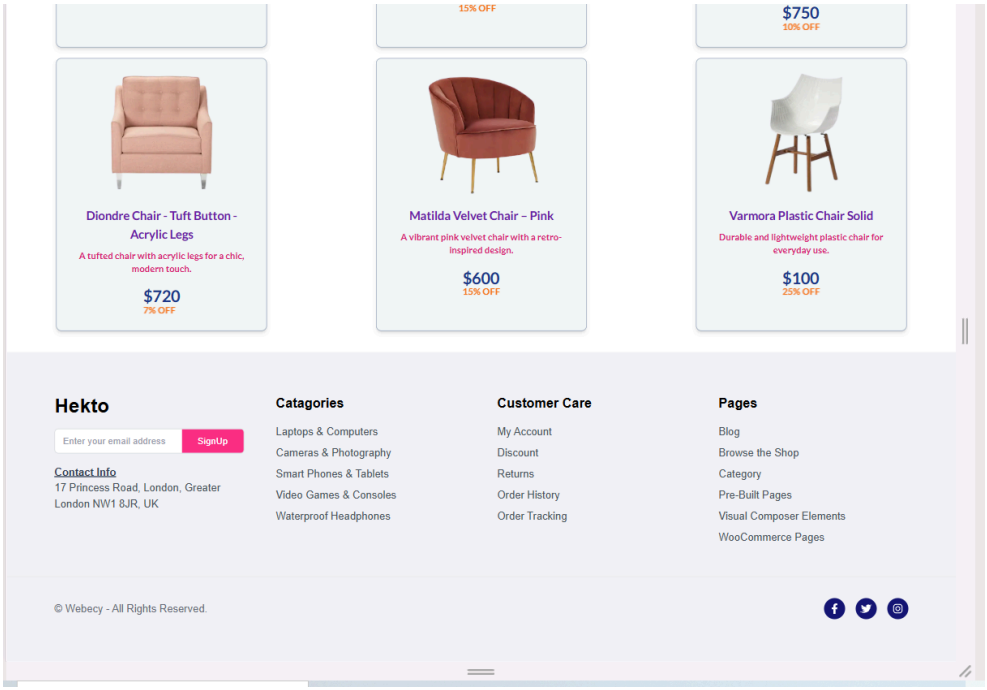
- **Users can log in using Google**

- **2:Search Capability:**
    - An advanced search bar enables users to effortlessly find products by entering names or tags.

- Results are dynamically updated in real-time, providing instant and relevant suggestions as users type.



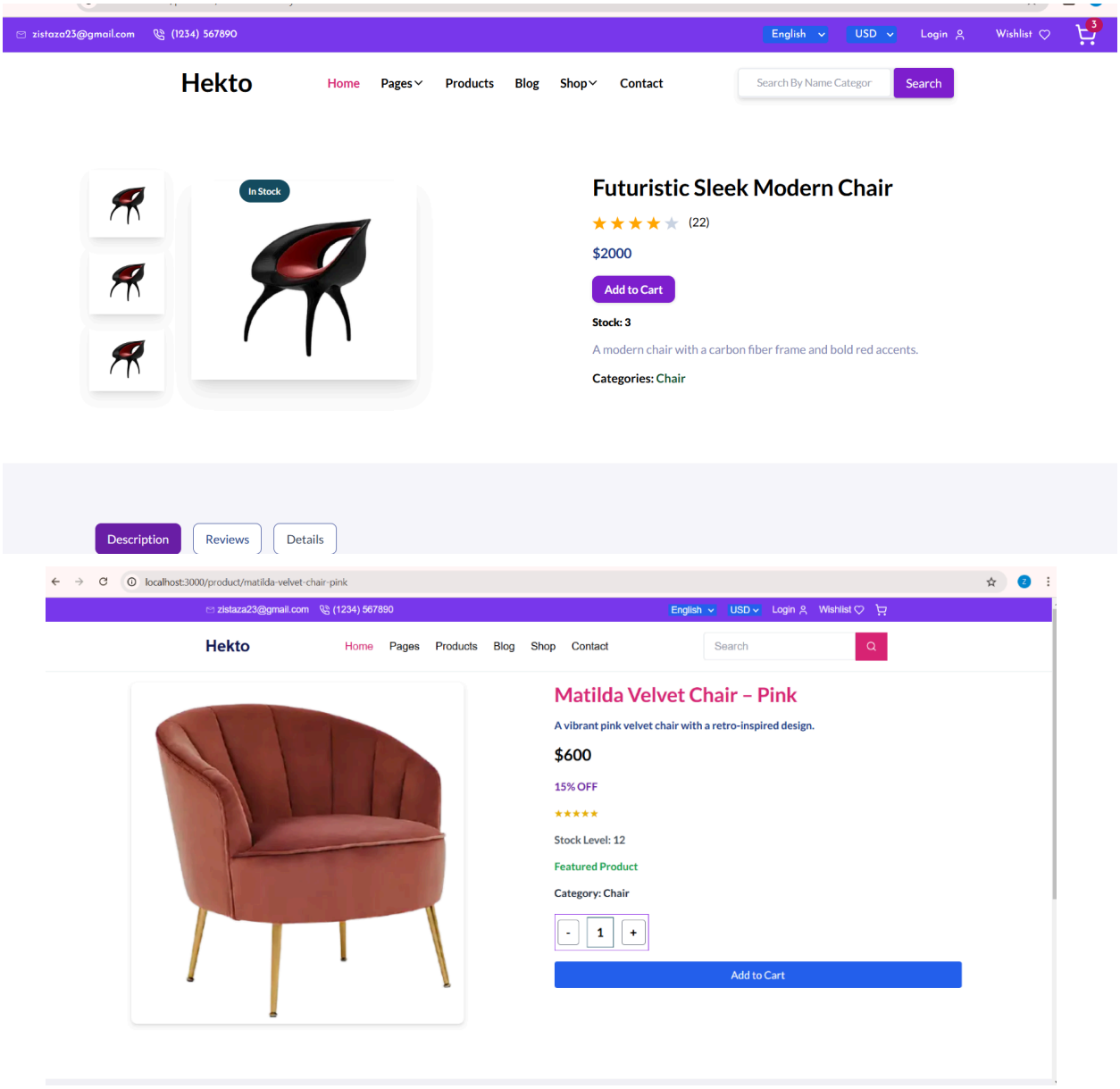
ProductListing Components:



DynamicProduct Detail Component

- Utilized Next.js for dynamic routing to generate unique pages for each product.

- Pages display the product name, description, price, stock status, category, featured status, ratings, discounts, and images.



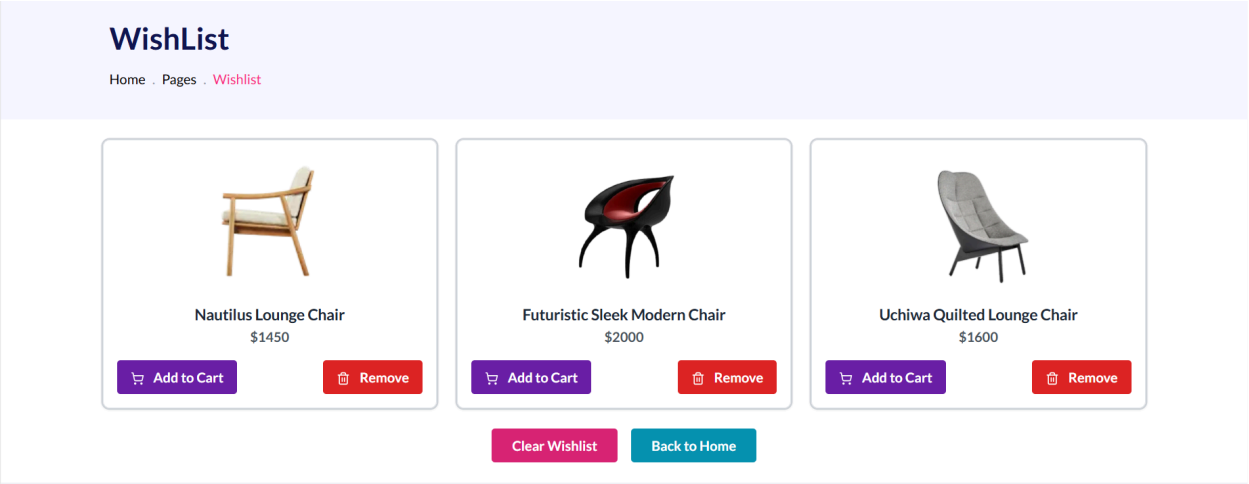
Reusable Components

- Developed modular and reusable components for improved scalability and easy maintenance.
- Key examples include:
  - **ProductCard**

- **Navbar**
- **Footer**

Wishlist Functionality:

- ✔ Products can be saved to the wishlist.
- ✔ Wishlist items can be moved directly to the cart.
- ✔ Clear wishlist option implemented.
- ✔ **Access Restrictions:**
  - **Only logged-in users can access the wishlist.**

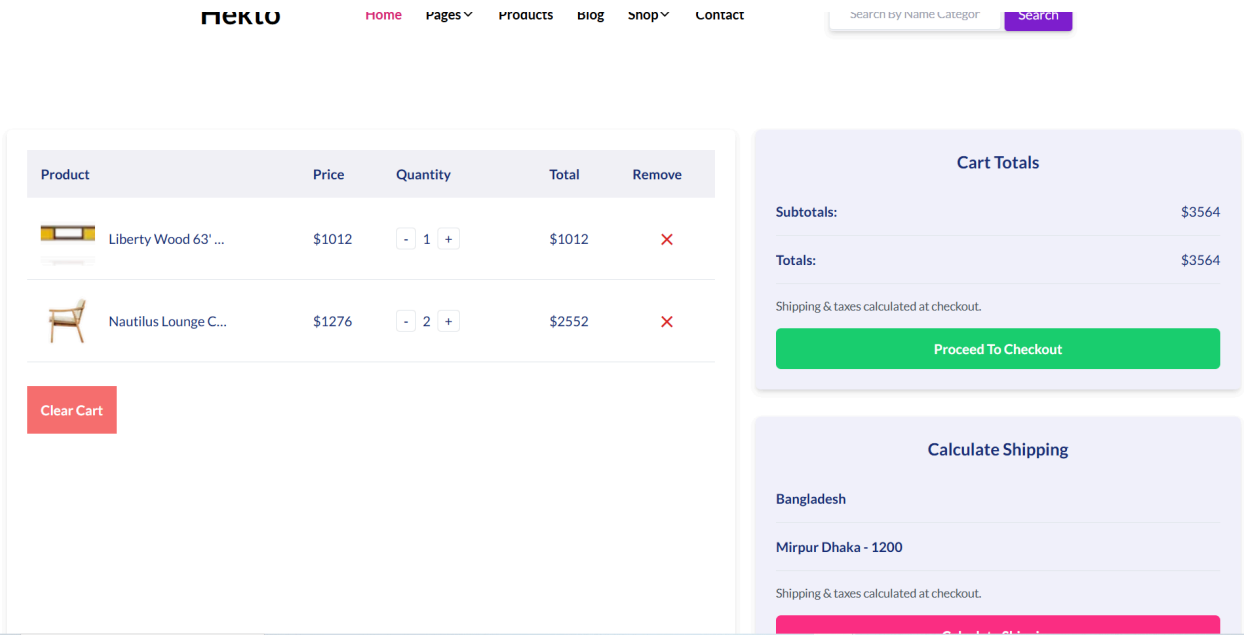


Loader:

- A loading animation runs while the results are being fetched to improve user experience.

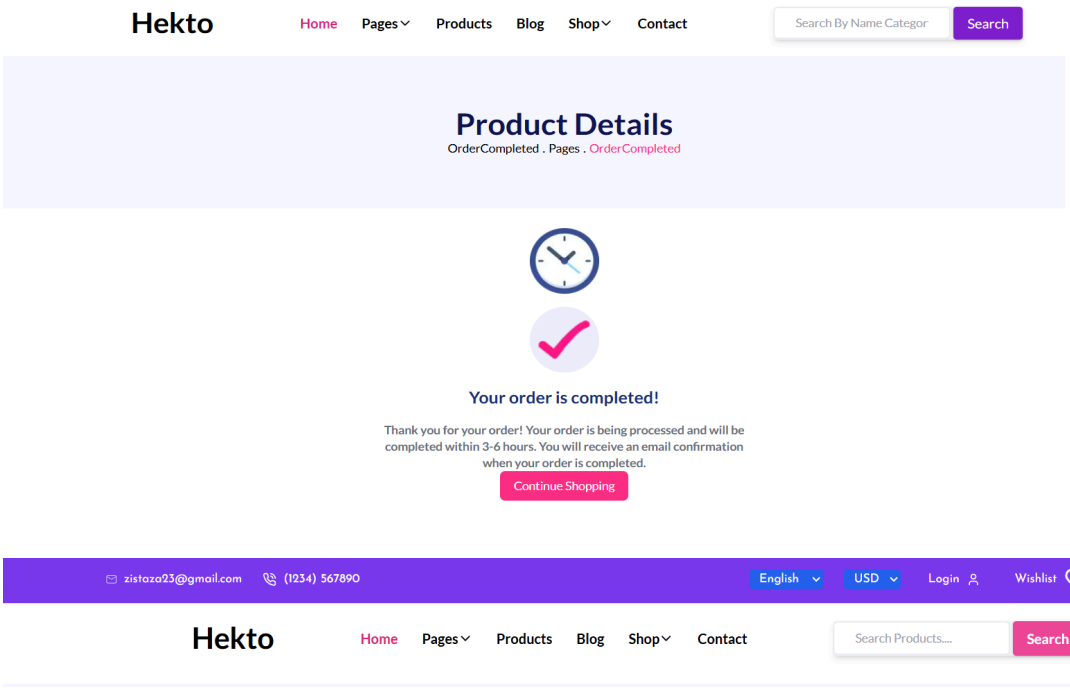
Add-to-Cart Functionality

- Enabled dynamic addition of products to the cart.
  - Displays the total number of items and the cart's total price.
  - Allows users to adjust product quantities directly within the cart.



Instant Alerts

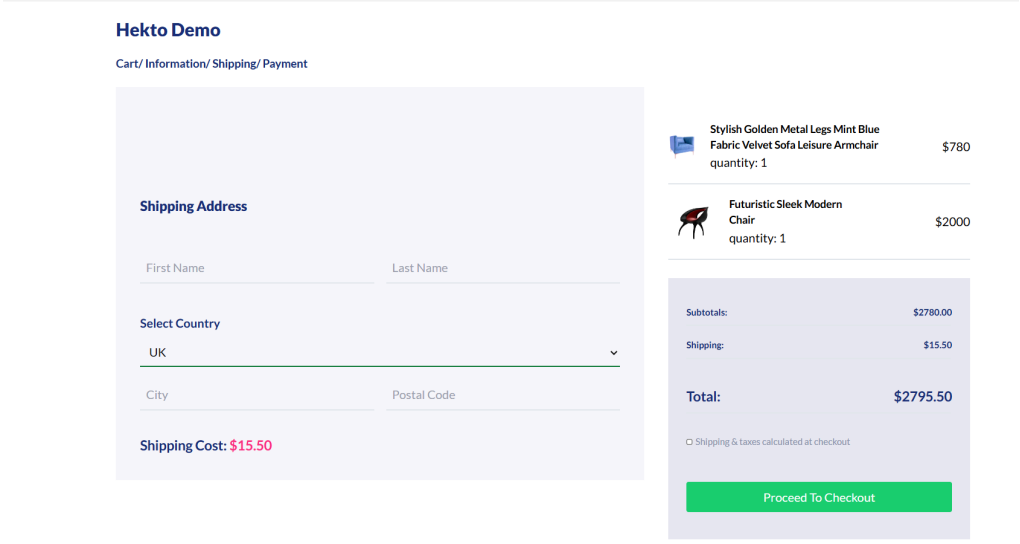
- Added toast notifications to provide immediate feedback to users.
- These notifications cover:
    - Confirmation messages when products are added to the cart.
    - Error warnings, such as when users try to add unavailable items.

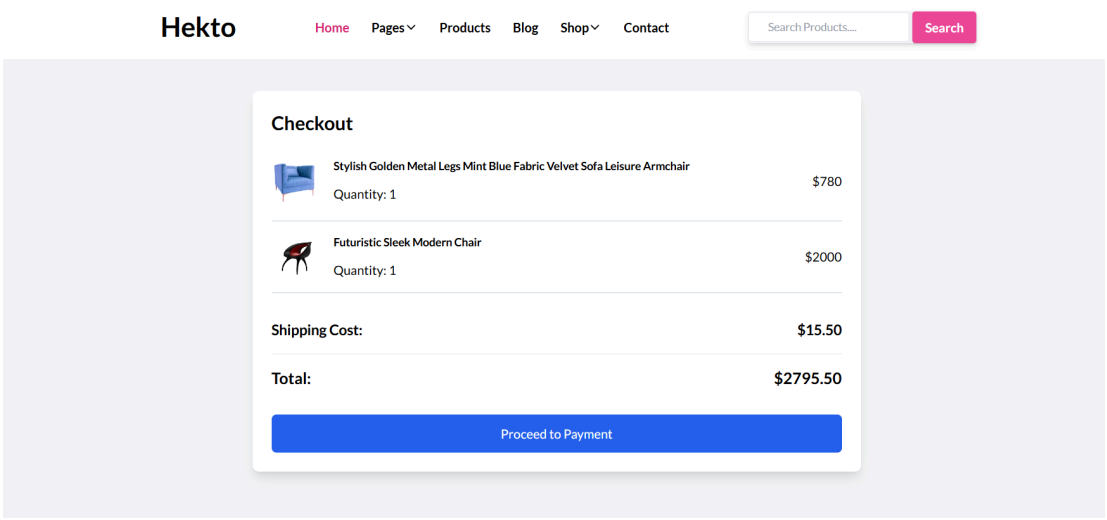


Checkout Process

- Implemented a multi-step checkout page featuring:
    - Forms to input billing and shipping addresses.

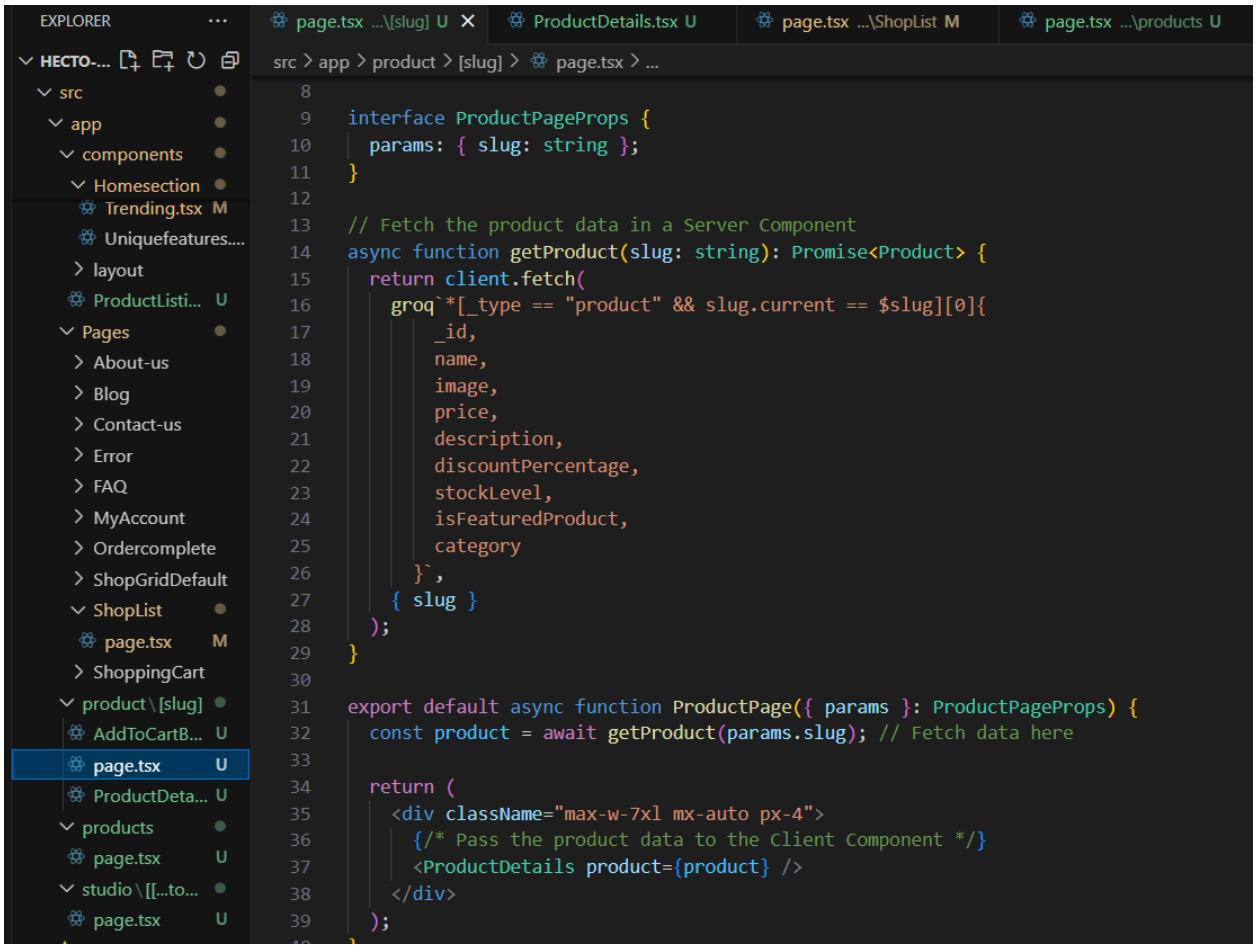
- Integration of a mock payment gateway.
- A detailed order summary displayed before final confirmation.



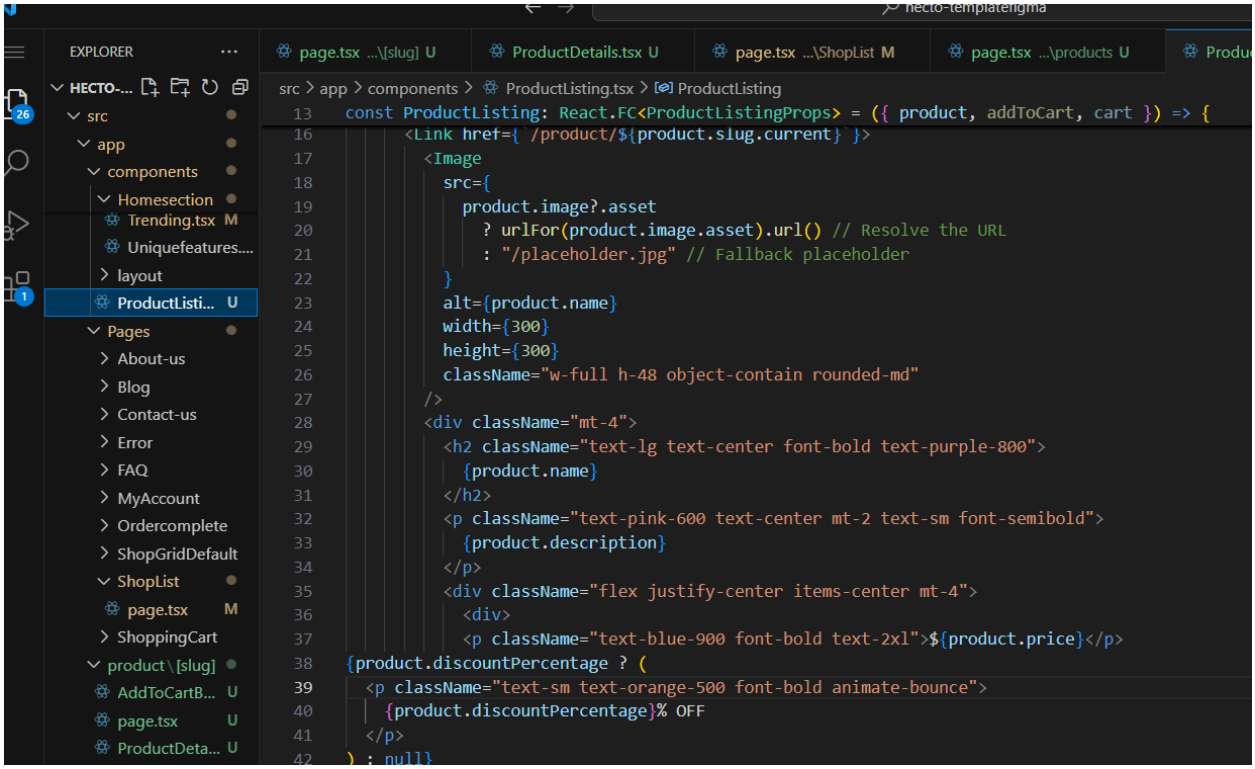


2. Code Deliverables:

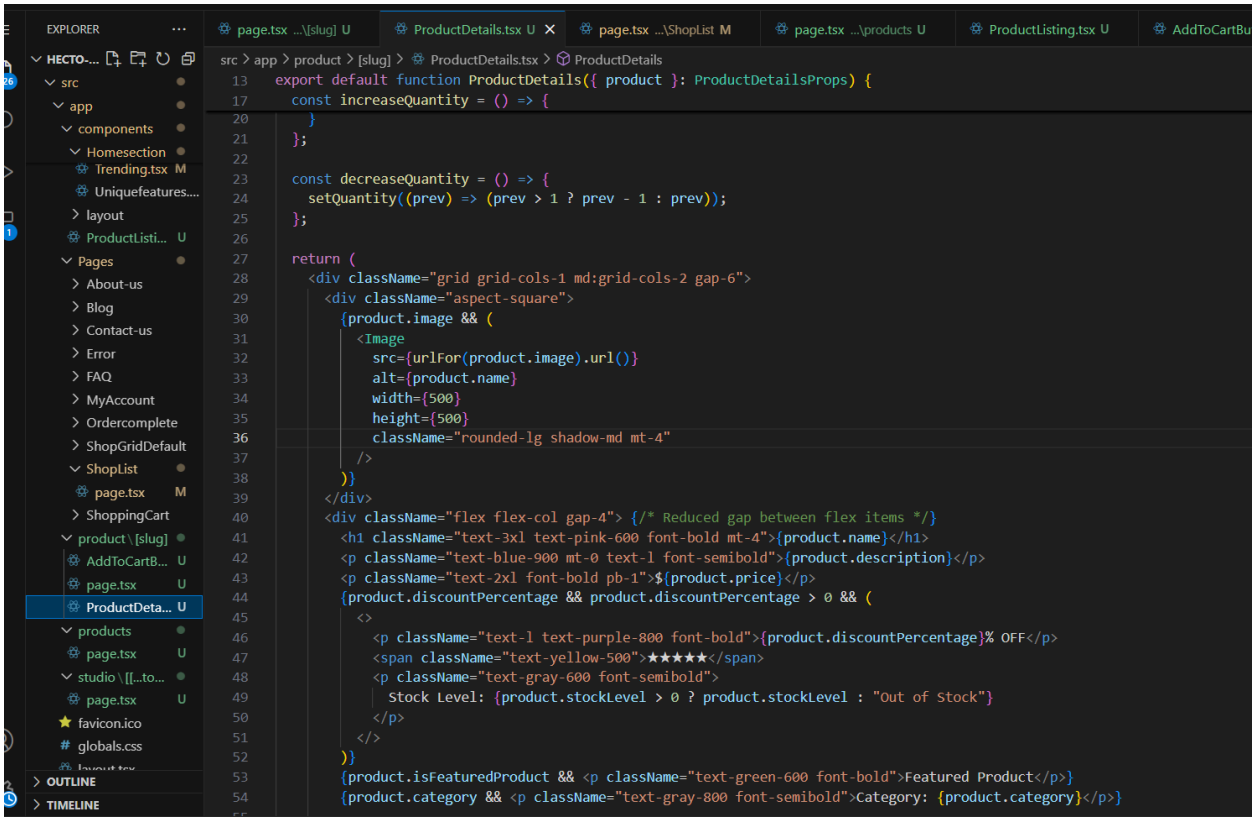
Dynamic via [slug]



ProductListing



productdetailcard



Tools and Technologies Used

- **Frontend: Next.js, Tailwind CSS**
- **Backend CMS: Sanity (for managing dynamic content)**
- **State Management: React Context API**
- **Notifications: React Toastify**

- **Here's the checklist with tick marks to indicate completion**

Category	Task	Status
Frontend Components	- Ensure all components are modular and reusable	✅
	- Verify product details page displays correct information	✅
	- Test add-to-cart functionality works as expected	✅
	- Check toast notifications trigger at appropriate actions	✅
	- cart icons and wishlists icons dynamically display the number of items.	✅
	-quick actions like adding items to the cart appear on hover.	✅
	-Real-time product search with dynamic filtering	✅
	-Smooth loader animation while fetching results.	✅
	-Add, remove, and update product quantities.	✅
	- Total price calculated dynamically.	✅
	-Payment system integrated to process orders.	
	-Clear cart option available for quick actions	✅
Styling and Responsiveness	- Confirm Tailwind CSS is used for responsive design	✅
	- Ensure layout adjusts properly on different screen sizes	✅
	- Validate visual consistency across devices and browsers	✅
Code Quality	- Confirm clean, modular, and well-commented code	✅
	- Perform linting and fix any issues	✅
	- Run unit tests and ensure all pass	✅

Category	Task	Status
Documentation	- Ensure all components are documented with usage examples	✅
	- Provide clear instructions for running the project	✅
	- Document the setup for the development environment	✅