

Hackathon Day-4

Day 4 – Report on Dynamic Frontend Components for E-Commerce

1. Introduction

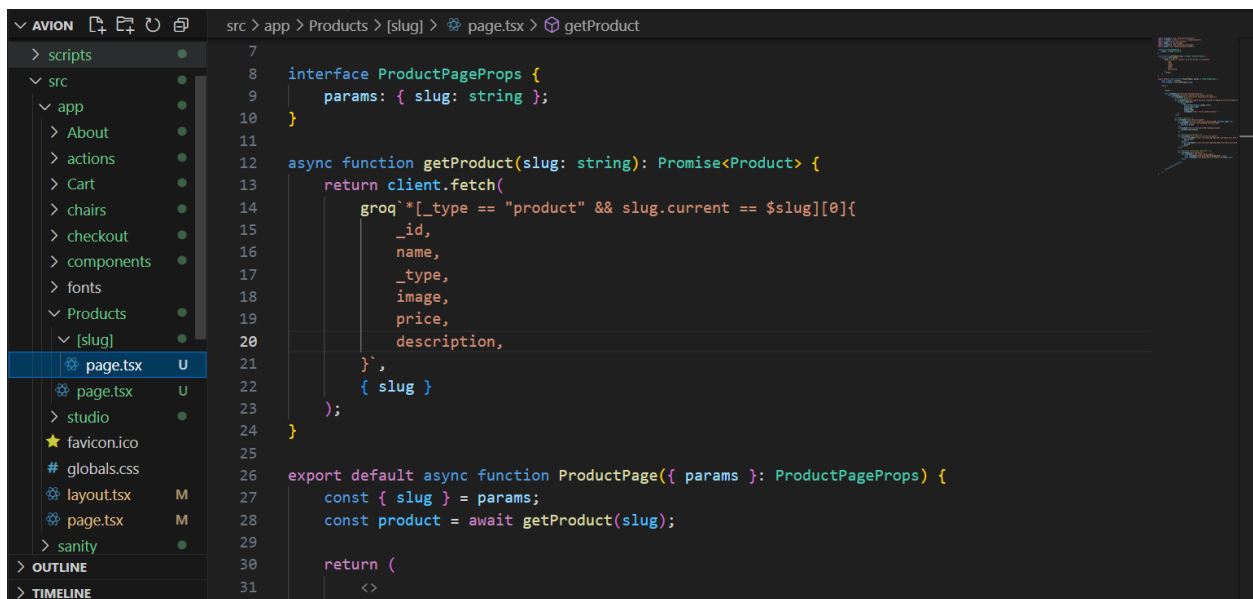
This document details the creation of interactive and responsive frontend components for **E-Commerce**. The primary focus areas include:

- **Dynamic Product Rendering**
- **Product Cards Component Shown on the Homepage**
- **Building a Well-Organized Product Listing Page**
- **Developing a Comprehensive Product Detail Page**
- **Creating a Functional Shopping Cart for Order Management**
- **Order Submission on the Checkout Page Sends Data to Sanity**

2. Tasks Overview

Step 1: Product Component

- Fetched product data dynamically from the API.
- Retrieved product data and displayed it in a grid layout within a dedicated component on the homepage, showcasing names and prices.



```
7
8 interface ProductPageProps {
9   params: { slug: string };
10 }
11
12 async function getProduct(slug: string): Promise<Product> {
13   return client.fetch(
14     groq`*[_type == "product" && slug.current == $slug][0]{
15       _id,
16       name,
17       _type,
18       image,
19       price,
20       description,
21     }`,
22     { slug }
23   );
24 }
25
26 export default async function ProductPage({ params }: ProductPageProps) {
27   const { slug } = params;
28   const product = await getProduct(slug);
29
30   return (
31     <>
```

The furniture brand for the future, with timeless designs

[View Collection](#)

A new era in eco-friendly furniture with Avion, the French luxury retail brand offering sophisticated designs combined with modern web technologies.

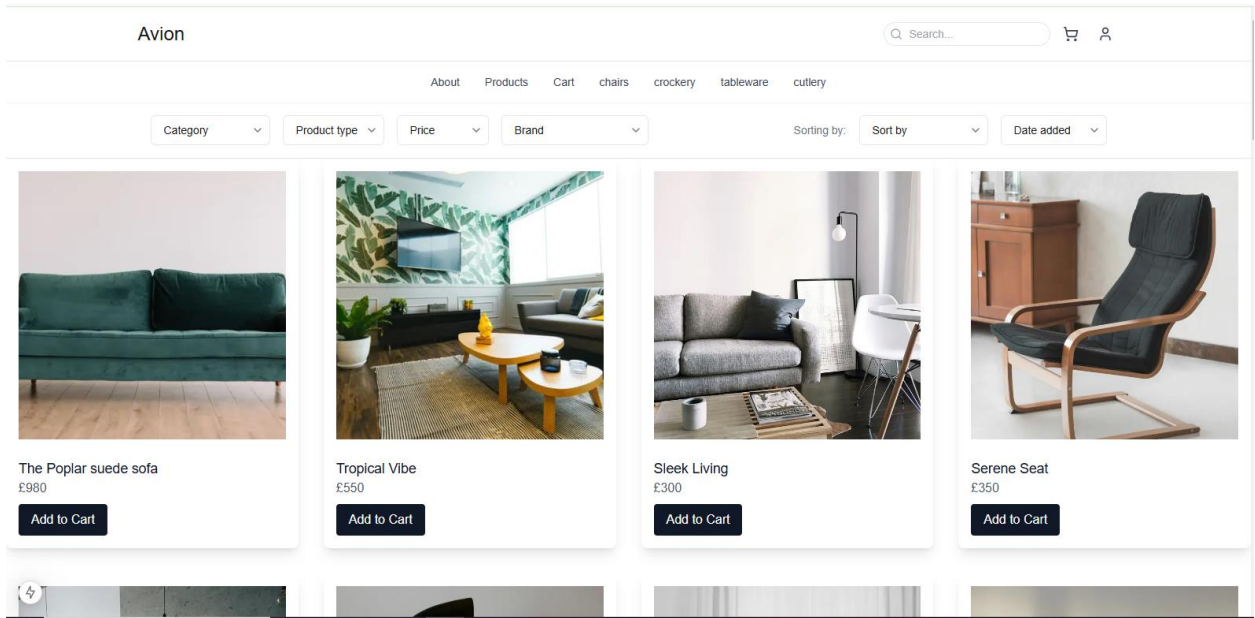


New Ceramics



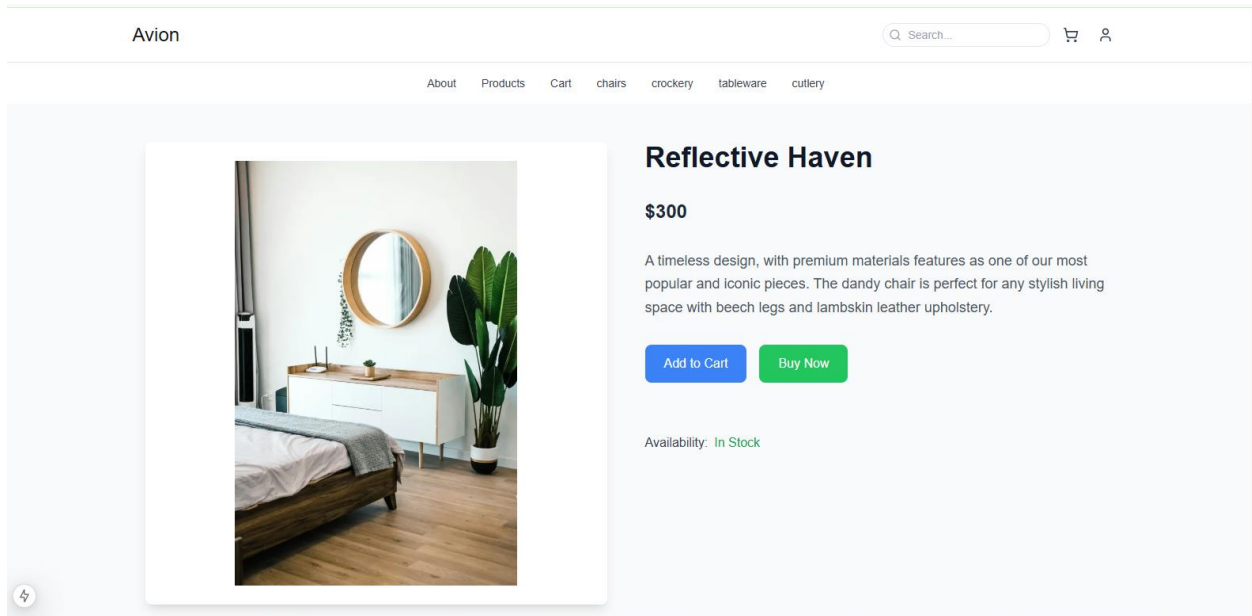
Step 3: Product Listing

- Fetched product data dynamically from the API.
- Displayed products in a responsive grid layout, featuring names and prices.



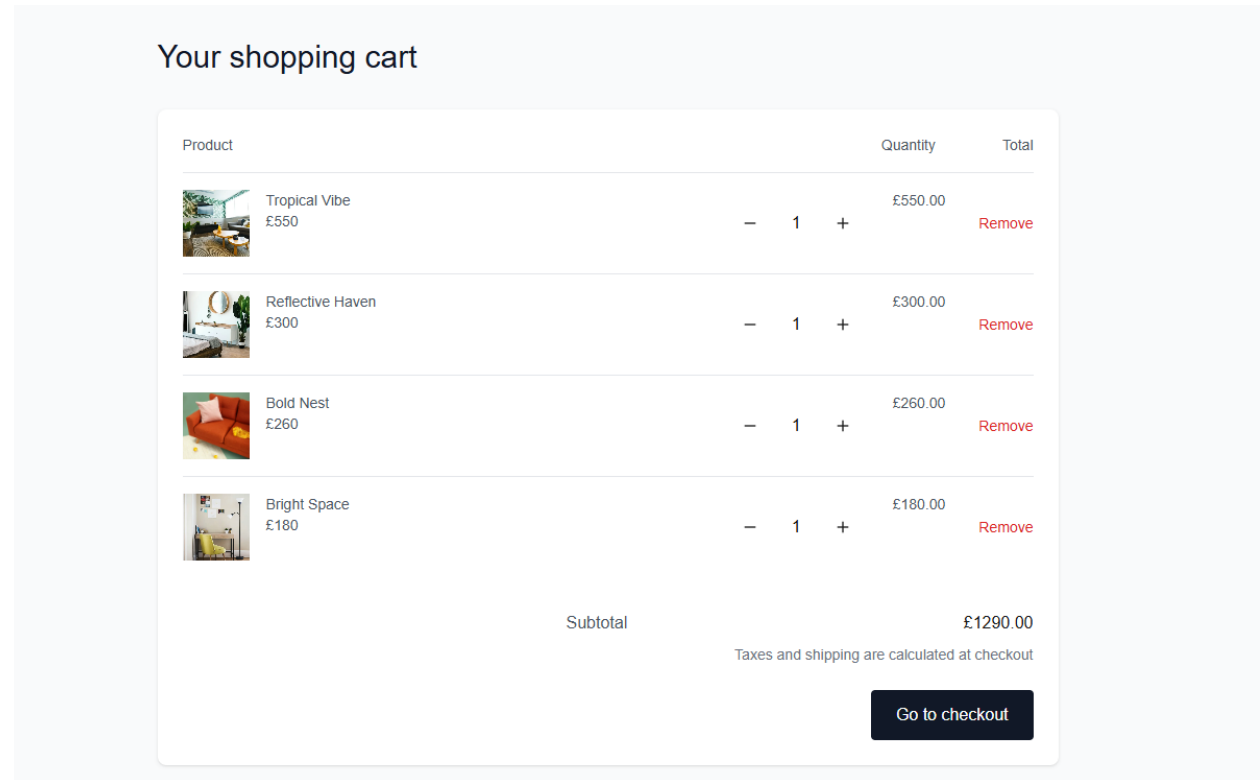
Step 4: Product Detail Page

- Created a dynamic product detail page with unique routing.
- Integrated an "Add to Cart" button for a smooth shopping experience. When clicked, items are successfully added to the shopping cart.



Step 5: Shopping Cart Functionality


- Enabled users to add and remove products from the shopping cart.
- Integrated real-time cart updates and a checkout functionality.



Step 6: Successful Checkout

- Clicking the "Checkout" button redirects the user to the checkout page.
- Users can continue by entering their checkout details.


Cart > Check Out



Tropical Vibe

Quantity: 1


\$550.00



Reflective Haven

Quantity: 1


\$300.00



Bold Nest

Quantity: 1

\$260.00



Bright Space

Quantity: 1

\$180.00

SubTotal:

\$1290.00

Discount:

-\$0.00

Total:

\$1290.00

Billing Information

First Name

Enter Your First Name

Last Name

Enter Your Last Name

Address

Enter Your Address

Email

Enter Your Email

Phone

Enter Your Phone

Zip Code

Enter Your Zip Code

City

Enter Your City

Place Order

Order placement on checkout page will send data to **Sanity**

Default

Create

Structure

Vision

Schedules

Content

Product

Category

Order

Order

Search list

Muhammad

Muhammad

Order

Muhammad

FirstName

Muhammad

LastName

Abubakar

Address

Grec

City

Karachi

Published in 2 min.

Publish

Here is a well-structured **Self-Validation Checklist** in table format, based on your report. This provides a clear framework for validation and ensures all tasks are efficiently completed.

Frontend Development Self-Validation Checklist

Frontend Component Development ✓ X

- ✓ Interactive product display
- ✓ Functional product detail page
- × Category filtering method
- × Search functionality
- ✓ Shopping cart functionality (add/remove items)
- ✓ Order checkout functionality
- × Authentication page (Login / Signup)

Design and responsiveness ✓ X

- ✓ Responsive grid layout for product listings
- ✓ Consistent UI design across all pages
- ✓ Mobile responsiveness

Code Quality ✓ X

- ✓ Reusable and modular components
- ✓ Well-structured and maintainable code
- ✓ Efficient state management and data binding
- ✓ Performance optimization and fast loading speed

Proper documentation and final submission ✓ X

- ✓ Instructions for setup and application execution
- ✓ Well-documented code with comments and explanations
- × Timely submission before the deadline

Comprehensive final review ✓ X

- ✓ Complete functionality testing (products, cart, checkout)

- ✓ UI/UX evaluated for a seamless user experience
- ✓ No bugs/issues identified in the development

Adherence to professional development practices ✓ X

- ✓ Well-structured and reusable component architecture
- ✓ Efficient state management and real-time data binding
- ✓ Adaptive and intuitive UI/UX design
- ✓ Comprehensive documentation for code and workflows

Conclusion

The interactive frontend components were effectively built, enhancing the user experience with responsive designs and dynamic cart functionality. Attached screenshots validate the successful implementation.