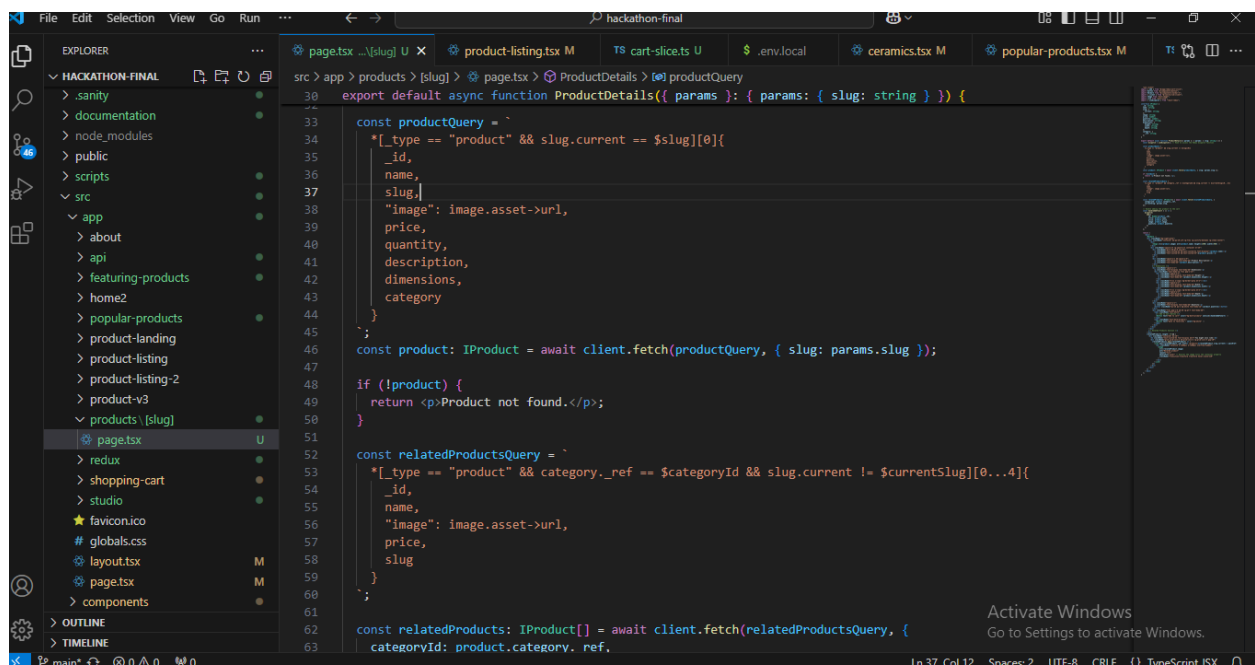


DAY4: DYNAMIC FRONTEND COMPONENTS_ AVION

➤ Dynamic Routing for products

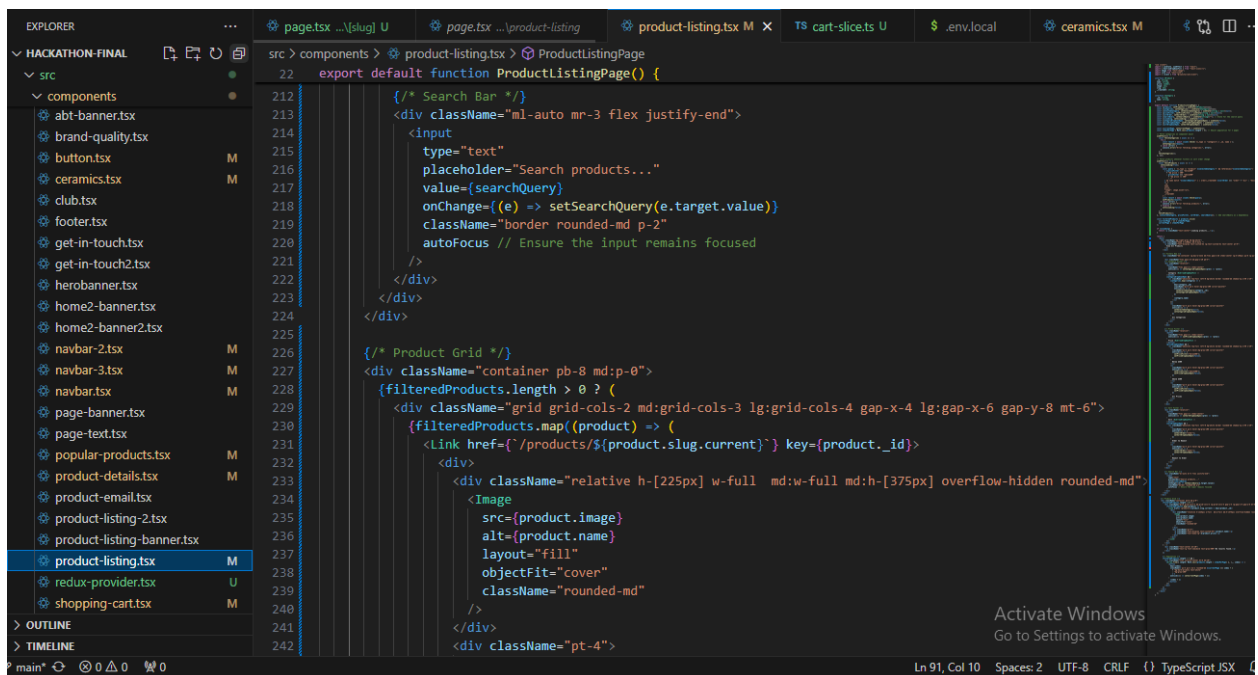


```
src > app > products > [slug] > page.tsx > ProductDetails > productQuery
export default async function ProductDetails({ params }: { params: { slug: string } }) {
  const productQuery = `
    query {
      product {
        _id,
        name,
        slug,
        "image": image.asset->url,
        price,
        quantity,
        description,
        dimensions,
        category
      }
    }
  `;
  const product: IProduct = await client.fetch(productQuery, { slug: params.slug });
  if (!product) {
    return <p>Product not found.</p>;
  }
  const relatedProductsQuery = `
    query {
      products {
        _id,
        name,
        "image": image.asset->url,
        price,
        slug
      }
    }
  `;
  const relatedProducts: IProduct[] = await client.fetch(relatedProductsQuery, {
    categoryId: product.category._ref,
  });
}
```

➤ Product Listing and Search Bar code

```
      : priceFilter === "above300"
      ? "&& price >= 300"
      : ""
    } && name match `${searchQuery}*` ] | order(_createdAt ${sortOrder === "older" ? "asc" : "desc"}) {
      _id,
      name,
      price,
      "image": image.asset->url,
      slug,
      _createdAt
    }`
  };
  const result = await client.fetch(query);
  setProducts(result);
} catch (error) {
  console.error("Error fetching products:", error);
} finally {
  setIsLoading(false);
}
};
fetchProducts();
}, [selectedCategory, priceFilter, sortOrder, searchQuery]); // Add searchQuery as a dependency

const filteredProducts = products.slice(
  (currentPage - 1) * itemsPerPage,
  currentPage * itemsPerPage
);
```



```
export default function ProductListingPage() {
  212
  213   /* Search Bar */
  214   <div className="ml-auto mr-3 flex justify-end">
  215     <input
  216       type="text"
  217       placeholder="Search products..."
  218       value={searchQuery}
  219       onChange={(e) => setSearchQuery(e.target.value)}
  220       className="border rounded-md p-2"
  221       autoFocus // Ensure the input remains focused
  222     />
  223   </div>
  224 </div>
  225
  226   /* Product Grid */
  227   <div className="container pb-8 md:p-0">
  228     {filteredProducts.length > 0 ? (
  229       <div className="grid grid-cols-2 md:grid-cols-3 lg:grid-cols-4 gap-x-4 lg:gap-x-6 gap-y-8 mt-6">
  230         {filteredProducts.map((product) => (
  231           <Link href={`/products/${product.slug.current}`} key={product._id}>
  232             <div>
  233               <div className="relative h-[225px] w-full md:w-full md:h-[375px] overflow-hidden rounded-md">
  234                 <Image
  235                   src={product.image}
  236                   alt={product.name}
  237                   layout="fill"
  238                   objectFit="cover"
  239                   className="rounded-md"
  240                 />
  241               </div>
  242               <div className="pt-4">
```


← → ↻ 🌐 localhost:3000/products/vase-set ☆ A ⋮

🚚 Free delivery on all orders above £50 with code easier checkout

Avion

Plant Pots Ceramics Tables Chairs Crockery Tableware Cutlery

🔍 🛒 2 🌐



Vase Set

\$150

Product Description

A timeless design, with premium materials features as one of our most popular and iconic pieces. The dandy chair is perfect for any stylish living space with beech legs and lambskin leather upholstery.


Dimensions

Height	Width	Depth
110cm	75cm	50cm

Quantity

50

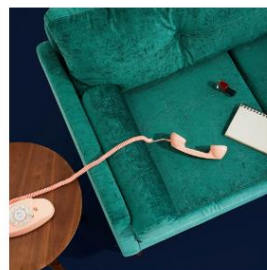
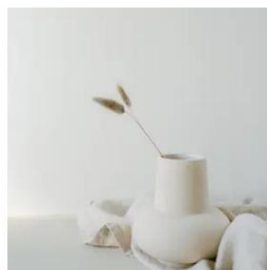
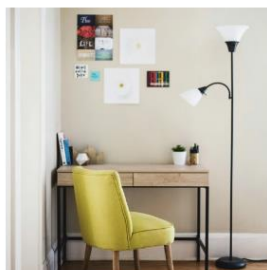
Activate Windows
Go to Settings to activate Windows.



Add to cart

Save to favorites

You might also like



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Go to Settings to activate Windows.



Avion



Plant Pots

Ceramics

Tables

Chairs

Crockery

Tableware

Cutlery

View All Products

Category ▾

Price ▾

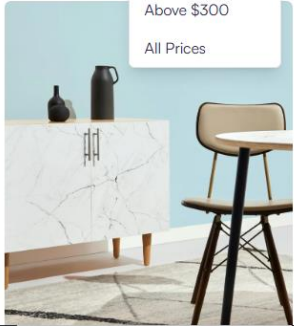
Sort ▾

Search products...

Below \$300

Above \$300

All Prices



localhost:3000/product-listing

View All Products

Category ▾

Price ▾

Sort ▾

Search products...

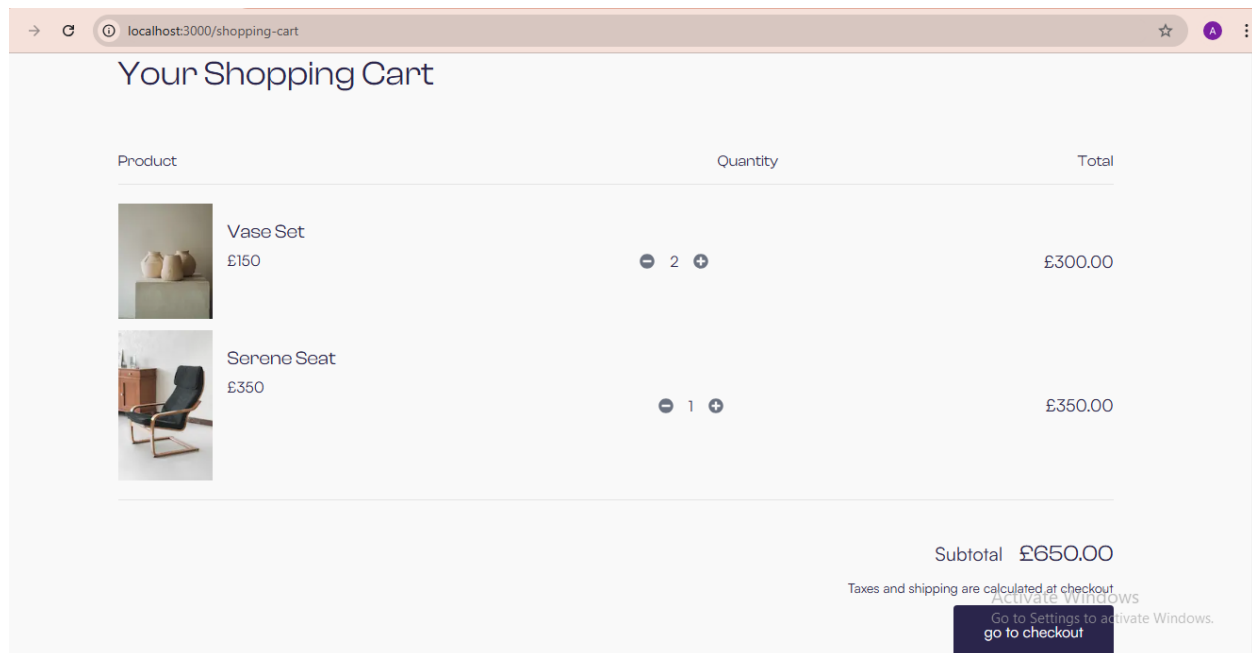


Vase Set
\$150



Tropical Vibe
\$550

Activate Windows
Go to Settings to activate Windows.



3. Documentation (Technical Report)

Steps Taken to Build and Integrate Components:

- Implemented the **Product Listing Page** using dynamic data fetched from Sanity CMS. Each product was displayed using a reusable ProductCard component.
- Set up **dynamic routing** for individual product pages, ensuring correct data rendering when users navigate to a product.
- Added **category, price and sort filters, a search bar, and pagination** to enhance user experience and allow easy navigation through the product list.
- Integrated API calls efficiently using axios to fetch and update product data.

Challenges Faced & Solutions Implemented:

- The biggest challenge was **migrating data into Sanity CMS**. Initially, errors occurred due to incorrect configurations in the provided migration files.
- After spending **1.5 days debugging**, I realized the mistakes were within the migration files themselves. This caused unexpected failures when importing data.
- To resolve this, I explored alternative migration methods and manually corrected the errors in the provided files. Once fixed, the migration process worked smoothly.

Best Practices Followed:

- **Component Reusability:** Used modular components like ProductCard and ProductList to keep the codebase organized.

- **Optimized API Calls:** Ensured efficient data fetching to reduce unnecessary API requests.
 - **Clean Folder Structure:** Maintained a well-structured project layout for easy navigation and scalability.
 - **Error Handling:** Added proper error handling in API requests to ensure smooth user experience.
-