Building Dynamic Frontend Components For Marketplace:-

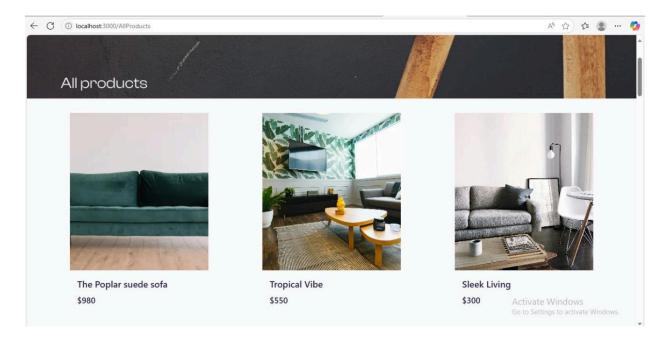
Built Components:

1. Product Listing Component:

• Dynamically fetch and display product data from Sanity CMS or API.

```
export default function Products() {
     const [products, setProducts] = useState<Product[]>([]);
4
     useEffect(() => {
       const fetchProducts = async () => {
         const query = `*[_type == "product"]{
6
8
           price,
            "imageUrl": image.asset->url
10
         }`;
12
         const products = await client.fetch(query);
14
         setProducts(products);
15
        };
16
17
       fetchProducts();
18
      }, []);
19
20
21
       <div className="bg-gray-50 min-h-screen">
22
         <header>
23
24
25
          <div className="container mx-auto px-4 mt-8">
26
27
           <div className="grid grid-cols-1 sm:grid-cols-2 lg:grid-cols-3 gap-6 justify-items-center">
28
             {products.map((product) => (
29
30
                 key = \{product.\_id\}
                 href={`/AllProducts/${product._id}`}
31
                 className="relative block group w-full max-w-[305px] h-[462px] rounded-lg overflow-hidden"
32
33
34
                 {/* Product Image */}
                 <div className="relative w-full h-[75%] bg-gray-200">
36
                   <Image</pre>
37
                     src={product.imageUrl}
38
                     alt={product.name}
39
40
                     className="object-cover"
41
42
43
                 {/* Product Details */}
44
                 <div className="p-4 flex flex-col gap-2">
45
                   <h4 className="text-xl font-semibold text-[#2A254B]">
46
                    {product.name}
47
48
                   49
                     ${product.price}
50
52
53
             ))}
54
56
58
```

• Display product names and prices in a clean, responsive grid layout.

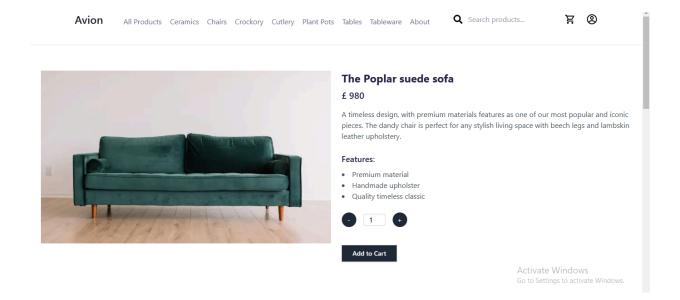


2. Product Detail Component:

• Use dynamic routing to render individual product details, including name, price, description, and additional data.

```
1 useEffect(() => {
       const getData = async () => {
 3
         try {
           const products = await client.fetch(
             `*[_type == "product" ]{
 6
            _id,
 7
             name,
 8
             price,
9
             description,
             dimensions,
10
11
             image {
12
              asset->{
13
                 _id,
14
                  url
15
16
17
             features
18 }`
19
           // Find the product based on productId
20
           const product = products.find(
21
             (item: ProductData) => item._id === productId
22
23
           );
24
25
           setProductDetails(product);
         } catch (error) {
26
           console.error("Error fetching product details:", error);
27
28
         }
29
       };
30
       getData();
     }, [productId]);
31
32
```

• Provide an "Add to Cart" button with functionality.

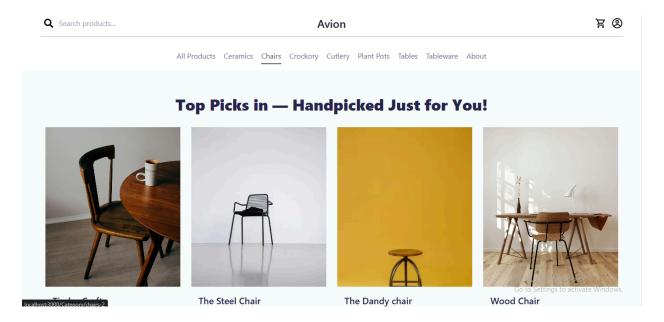


3. Category Component:

• Fetch categories dynamically from the data source.

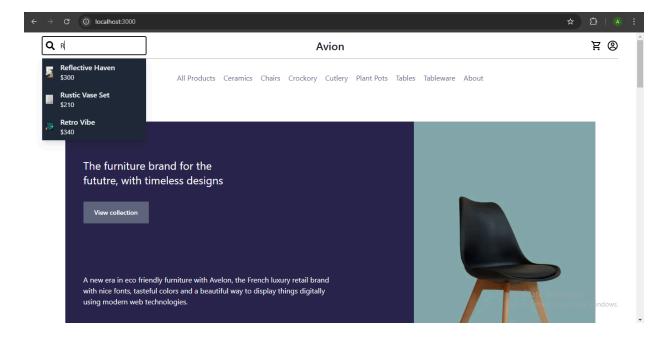
```
useEffect(() => {
 2
      const fetchCategory = async () => {
 3
        try {
          const categoryData = await client.fetch(
 4
             `*[_type == "category" && _id != categoryId]{
 5
 6
              _id,
 7
              name,
 8
              slug
 9
            { categoryId }
10
11
          );
12
          setCategory(categoryData[0]);
13
        } catch (error) {
          console.error("Error fetching category:", error);
14
15
        }
      };
16
17
      fetchCategory();
18
    }, [categoryId]);
19
20
    // Fetch products of the category based on category ID
21
    useEffect(() => {
22
      const fetchProducts = async () => {
23
        try {
          const productsData = await client.fetch(
24
25
             `*[_type == "product" && category._ref == $categoryId]{
26
              _id,
27
              name,
28
              price,
29
              description,
30
              image {
31
                asset->{
32
                  _id,
33
                  url
34
35
36
37
            { categoryId }
38
          );
39
          setProducts(productsData);
40
        } catch (error) {
41
          console.error("Error fetching products:", error);
42
        }
43
      };
44
      if (categoryId) {
45
        fetchProducts();
46
47
    }, [categoryId]);
```

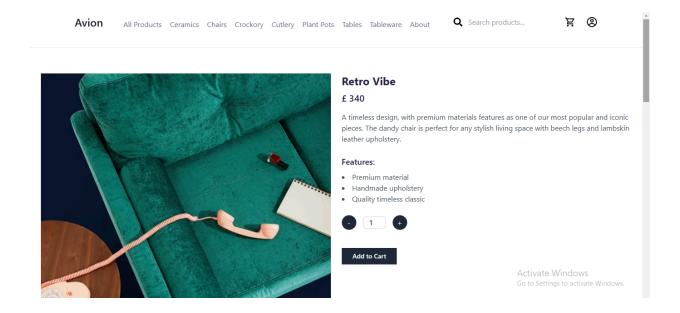
• Allow filtering of products by selected categories.



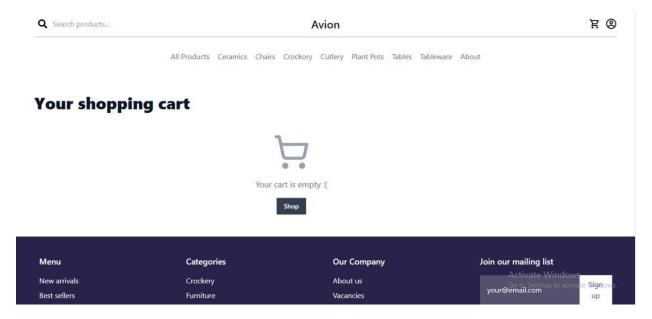
4. Advanced Search Bar:

• Implement faceted search to combine multiple filters and provide precise results.

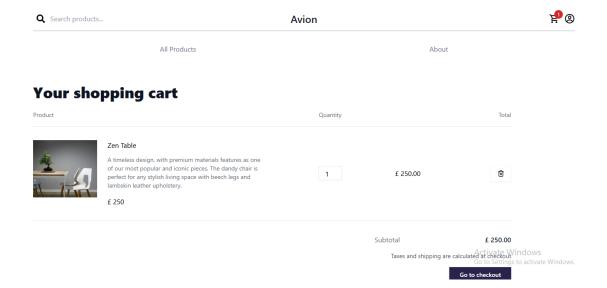




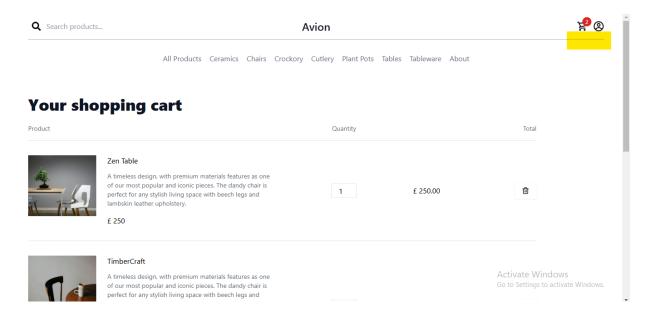
5. Cart Component:



• Enable users to view and manage their cart.

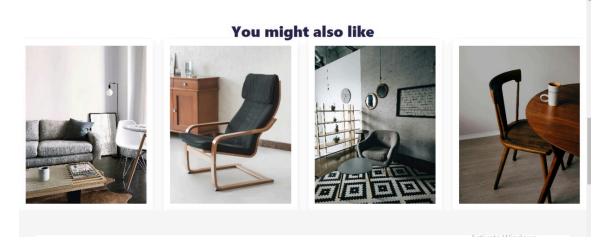


• Include features like updating quantities and removing items.



6. Related Products Component:

• Display similar products based on tags or categories on product detail pages.

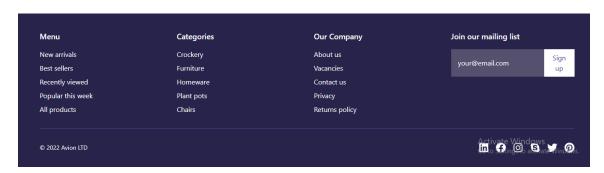


7. Footer and Header Components:

• Consistent navigation and branding elements.



- Include links to Home, About, Contact, and other key pages.
- Ensure responsiveness and accessibility.



8. Notifications Component:

• Notify users of actions like adding to the cart or search errors.

```
toast.success(`${item.name} added to cart!`);
```

Professional Practices Emphasized

Details Feature

Dynamic Page

Fetch data from Sanity CMS or API using GROQ **Product Listing** or fetch queries. Render products dynamically with reusable ProductCard components.

Product **Detail Pages** Create dynamic routes (e.g., /product/[id]). Fetch and display product-specific details to provide users with essential product information.

Search Bar

Implement stateful search functionality to filter products by name or tags. Limit suggestions to 4-5 results for a clean and focused user experience.

Category
Filters

Fetch category data dynamically and allow filtering to help users narrow down their preferences effectively.

Related
Products

Suggest products with similar tags/categories on detail pages to enhance user engagement and discovery.

Cart
Component

Provide cart management functionalities like adding, removing, and updating products for a smooth shopping experience.

Styling

Use Tailwind CSS or custom styles to ensure responsive layouts and a visually appealing interface across devices.

ReusableComponents

Ensure components are modular and reusable for better scalability and maintainability.

Notifications
Component

Use toast notifications to provide instant feedback for actions such as adding to cart, removing items, or successful checkout.