Day 4 - Dynamic Frontend Components Ecommerce Website (Hekto)

Today was an exciting and productive day in my journey of creating a marketplace. I focused on building a **dynamic frontend** that brings the platform to life and provides users with an interactive shopping experience. Here's a breakdown of what I achieved:

Product Listing Component:-

The **Product Listing Component** dynamically showcasing all available products in a clean and organized layout. It fetches product data from a backend API or a static file and renders each item within responsive and visually appealing cards.

- Dynamic Data Rendering: Displays product details like name, image,
 description, price, and category fetched from the backend using grog query.
- Responsive Design: Ensures the grid adjusts seamlessly across devices for a consistent user experience.
- Interactive Cards: Each product card is styled to highlight essential information, with hover effects and click actions for deeper interaction, such as navigating to a single product page.



Product Details Component:-

The component provides a comprehensive view of an individual product, allowing users to explore its features and details in depth. This component is designed to dynamically display data passed from the Product Listing Page through the URL using search parameters.

- Dynamic Data Retrieval: Retrieves product details such as name, price, description, image, and other attributes from the URL using useSearchParams in Next.js. This approach ensures seamless navigation and accurate rendering of the selected product.
- Interactive Elements: Users can interact with buttons for adding the product to the cart or initiating the checkout process directly from this page.

Some Code Snippets:

```
interface IProduct {
    id : number,
    name : string,
    price : number,
    discountPercentage: number,
    imagePath : string,
    category : string
    description:string,
    stockLevel:number,
    isFeaturedProduct:boolean
}

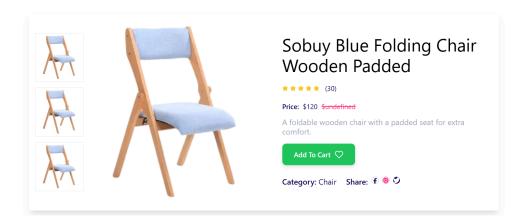
async function singleProductPage({searchParams} : {searchParams: Promise({
    name:string,
    price:string,
    description:string,
    description:string,
    discountPercentage:number,
    category:string,
    stockLevel:number,

}

const {relatedProducts} = await allProducts()

const {name,price,description,imagePath,category,discountPercentage,stockLevel} = await searchParams
```

Product Detail Page Screenshot:



Cart Component:-

The Cart Component serves as the heart of the shopping experience. It dynamically updates as users add or remove items, ensuring a seamless and interactive experience.

- Displays all products added to the cart with their details such as name, quantity, and price.
- Provides options to update the quantity or remove items from the cart.
- Automatically calculates and updates the total price as changes are made.

Code Snippet:

```
function ShoppingCart() {
    const searchParam = useSearchParams();
    const router = useRouter();
    const [cart, setCart] = useState<IProduct[]>([]);
    const [qty,setQty] = useState(1)

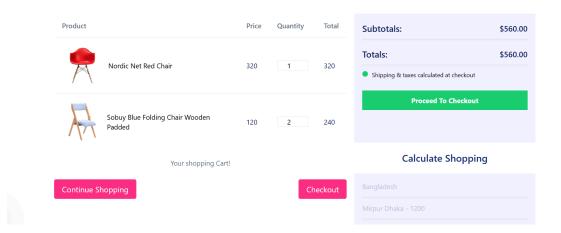
useEffect(() => {...
}, [searchParam, router]);

const removeItem = (id: string) => {...
};

function handleQuantity(index:number, num:string){...
}

const getTotalPrice = () => {...
};
```

Cart Component Screenshot:



Header and Footer Components:-

The **Header** and **Footer** components provide navigation, branding, and essential links while ensuring a responsive design for seamless accessibility across devices.

- Navigation Links: Includes links to essential pages like Home, Products,
 Cart, and Contact Us.
- **Responsive Design**: The navigation menu adjusts gracefully for mobile, tablet, and desktop views, with a hamburger menu for smaller screens.
- Quick Links: Provides links to important pages like Privacy Policy, Terms of Service, and Help Center.