# Document Title: "Day 4 - Dynamic Frontend Components - [Avion]

## **Steps Taken to Build and Integrate Components:**

- 1. **Fetched Products from Sanity:** Used useEffect and fetch (or useState with fetch) to get data dynamically on the client side.
- 2. **Created View Collection Page:** Displayed all fetched products in a grid layout using a ProductList component.
- 3. **Implemented Dynamic Routing:** Used Next.js [slug].tsx for individual product pages, retrieving data based on the clicked product.
- 4. Styled Components: Applied Tailwind CSS for responsiveness and a clean UI.

### **Challenges Faced and Solutions Implemented:**

- Issue: API fetching delays affected product rendering.
  - Solution: Used a loading state (useState) to improve UX while fetching data.
- **Issue:** Routing errors when clicking on products.
  - Solution: Ensured Next.js dynamic routes matched Sanity slugs correctly.
- Issue: UI responsiveness across different devices.
  - o **Solution:** Used Tailwind CSS flex/grid for better layout handling.

#### **Best Practices Followed:**

- Client-Side Fetching: Used useEffect for dynamic data retrieval from Sanity.
- Modular Code: Created reusable components (Product, ProductListing).
- Optimized Performance: Used useState to manage UI states efficiently.
- Scalability: Maintained a well-structured project folder hierarchy.

#### Screen shots of my website:

