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**(Student Leader Friday 9-12)**

## **Day 4 – Technical Report – General Ecommerce Nike Website**

### **Technical Report: Development and Integration Summary**

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

##### **1. Add-to-Cart and Wishlist Features:**

- Used context API to manage global data easily.
- Created reusable components for smooth user interaction.
- Added inventory management to update product quantities in real time.

##### **2. Shipment and Reviews Section:**

- Built and added a shipment tracking feature for user convenience.
- Integrated a reviews section to show customer feedback fetched from the backend.

##### **3. Search, Filter, and Pagination:**

- Added a search bar with advanced filters for accurate results.
- Used pagination to improve navigation and performance.

##### **4. Chatbot Integration:**

- Added a chatbot for real-time user support using modern libraries and APIs.
- Designed it to be easy to use and responsive on all devices.

##### **5. Using Library Components:**

- Used `shadcn`, `Aeternity UI`, and `Magical UI` to create consistent and attractive designs.
- These libraries helped save time and maintain a professional look.

##### **6. Sanity for Data Management:**

- Used Sanity for handling backend data efficiently.
- Configured flexible schemas to make data handling easier and scalable.

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

#### **1. Managing Global Data:**

- Problem: Keeping track of data across multiple components.
- Solution: Used context API for centralized and easy-to-manage global data.

## **2. Inventory Management:**

- Problem: Keeping inventory updated during multiple user actions.
- Solution: Added real-time updates and validation to avoid errors.

## **3. Library Compatibility:**

- Problem: Ensuring different libraries worked well together.
- Solution: Tested thoroughly and fixed any conflicts during integration.

## **4. Performance Issues:**

- Problem: Handling large amounts of data for search and filters.
- Solution: Used lazy loading and optimized API calls for better speed.

## **5. Chatbot Features:**

- Problem: Making the chatbot work smoothly.
- Solution: Integrated APIs with backups to ensure reliability.

## **Best Practices Followed During Development**

### **1. Reusable Code:**

- Designed modular components for easy reuse.

### **2. Version Control:**

- Used Git for regular updates and organized code management.

### **3. Accessibility:**

- Ensured all components followed accessibility guidelines like keyboard navigation and ARIA roles.

### **4. Responsive Design:**

- Made sure the designs worked well on all screen sizes.

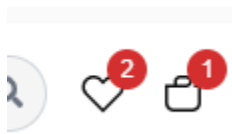
### **5. Testing and Debugging:**

- Performed detailed testing to catch and fix issues early.

### **6. Clear Documentation:**

- Kept well-written documentation for easy reference and future updates.

**Following are some ScreenShots:**



# Nike Air

Women's Shoes

**MRP: \$ 6455**

incl. of taxes

(Also includes

**Select Size**

UK 8.5

UK 10

**Select Color**

Black



Chatbot



Hi! How can I assist you today?



**Item added to cart!**

Nike Air Force 1 React has been  
successfully added to your cart.

[View Cart](#)

Add Reviews

Write your review...



Submit Review

Customer Reviews

hi

★ ★ ★ ★ ☆

delete

2025-01-23



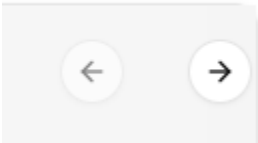
Hide Filters Sort By

< Previous    1    2    ...    Next >

Welcome to the Marketplace

Select Language

English



Size : L

Quantity: 1

