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**426133**

## **Day 5 - Testing and Back end Refinement - Nike E-Commerce**

### **Functional Testing:**

**Product Listing Test:** Ensured all products were displayed correctly with images, titles, and prices. **Result:** Passed

**Filters and Search Test:** Verified that filters and search returned accurate results. **Result:** Passed

**Cart Operations Test:** Tested adding, removing, and updating items in the cart. The totals updated correctly. **Result:** Passed

**Dynamic Routing Test:** Checked that each product led to a correct product detail page with the right URL. **Result:** Passed

**API Response Test:** Verified that the product API returns the correct data. **Result:** Passed

**End-to-End Flow Test:** Simulated the entire user journey: searching, adding to cart, and completing checkout. **Result:** Passed

All core functionalities, including product listing, filters/search, cart operations, dynamic routing, and end-to-end flow, have passed testing without any issues. No issues found during API testing and flow verification.

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- Shoes
- Sports Bra
- Tops & Tshirts
- Hoodies & Sweatshirts
- Jackets
- Trouser & Tights
- Shorts
- Tracksuits
- Jumpsuits & Rompers
- Skirts & Dresses
- Socks
- Accessories & Equipment

Gender

Men

[Reset Filters](#)

**Just In**  
**Nike Air Force 1 React**  
Men's Shoes  
PKR 13295

**Just In**  
**Nike Air Force 1 PLTAFORM**  
Women's Shoes  
PKR 8695

**Trending**  
**Nike Air Max 270**  
Men's Shoes  
PKR 13295

**Just In**  
**Nike Air Force 1 Mid '07**  
Men's Shoes  
PKR 10795

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**Just In**  
**Nike Air Force 1 React**  
Men's Shoes  
PKR 13295

**Sustainable Materials**  
**Nike Dri-FIT UV Hyverse**  
Men's Short-Sleeve Graphic Fitness Top  
PKR 2495

**Just In**  
**Nike Court Vision Low**  
Men's Shoes  
PKR 5695

**Trending**  
**Nike Renew Run 3**  
Men's Running Shoes  
PKR 7295

Dimensions: Responsive
320 x 554
100%
No throttling

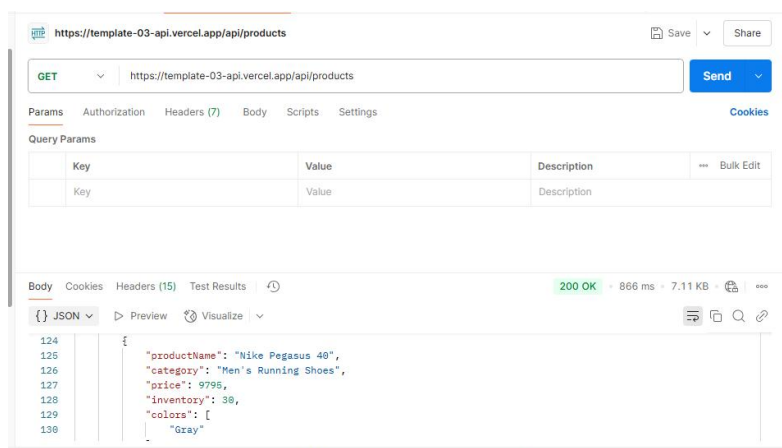
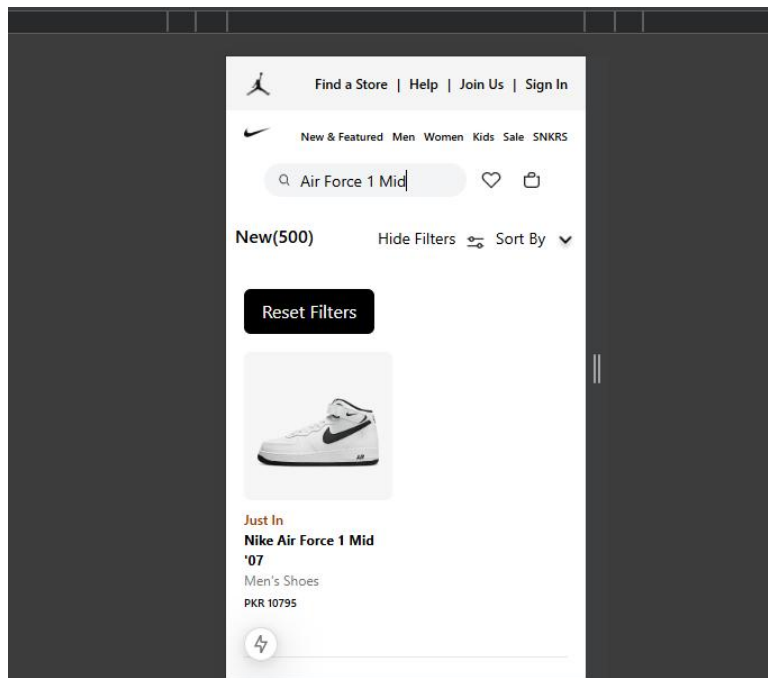
New(500)

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**Just In**  
**Nike Air Force 1 React**  
Men's Shoes  
PKR 13295

**Sustainable Materials**  
**Nike Dri-FIT UV Hyverse**  
Men's Short-Sleeve Graphic Fitness Top  
PKR 2495



## Error Handling

Handle API errors in the product fetching process

**Description:** . I temporarily put incorrect url to fetching product. Ensure that if there is an error fetching the products, a friendly error message is shown to the user. Display fallback UI when no products are found and it show!!

**Description:** Verify that a fallback message "No products found matching..." is displayed when no products match the search term.

```

export default function Products() {
  useEffect(() => {
    const fetchProducts = async () => {
      const NikeProducts = await client.fetch(`*_type == "product"){
        category,
        price,
        inventory,
        status,
        image,
        description
      }`);
      setProducts(NikeProducts);
      setOriginalProducts(NikeProducts);
      setError(null);
    } catch (error) {
      console.error("Failed to fetch products:", error);
      setError("Error: Unable to load products. Please try again later.");
    }
  });

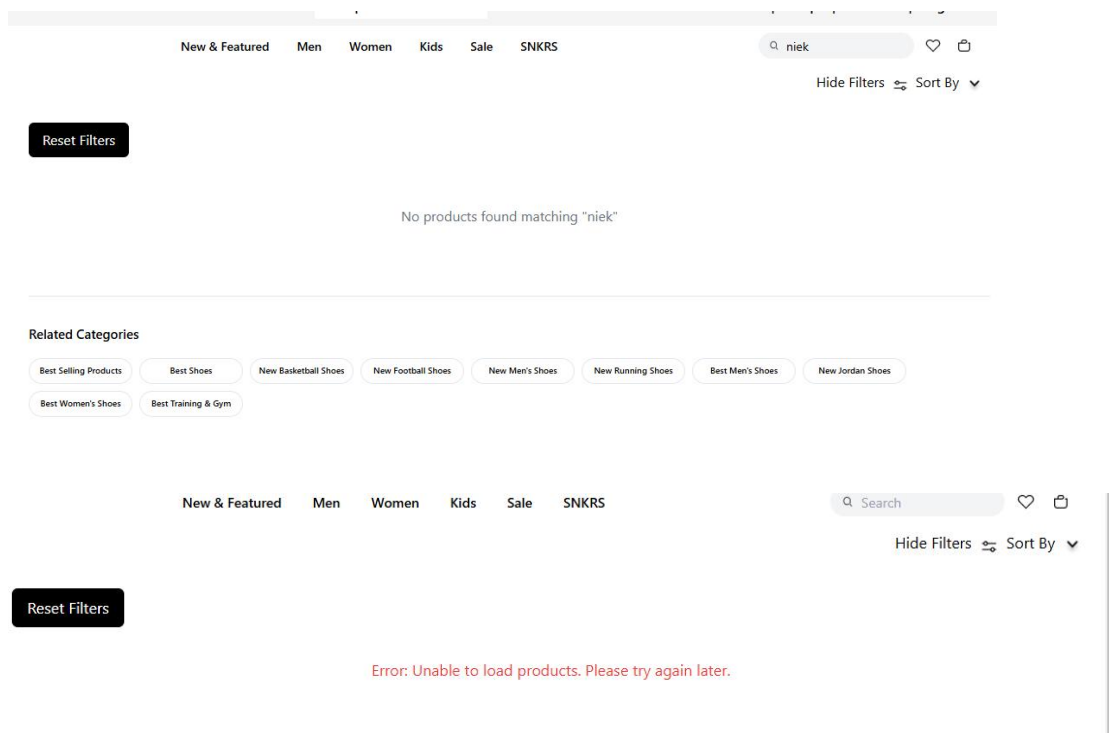
  fetchProducts();
}, []);

```

```

<div className="grid grid-cols-2 sm:grid-cols-2 md:grid-cols-3 lg:grid-cols-4 gap-6">
  {products.length === 0 && searchTerm && (
    <div className="col-span-full text-center py-10">
      <p className="text-gray-500">No products found matching "{searchTerm}"</p>
    </div>
  )}

```



## Performance Optimization

**First Contentful Paint (FCP):** 0.8 seconds.

FCP measures the time it takes for the first text or image to appear on the screen.

**Status:** Looks good as it's under 1 second.

**Largest Contentful Paint (LCP):** 14.3 seconds. LCP measures the time it takes for the largest visible element (like an image or heading) to fully load.

**Status:** Needs improvement as it's very high.

**Total Blocking Time (TBT):** 1310 ms. TBT tracks delays caused by tasks that block user interactions.

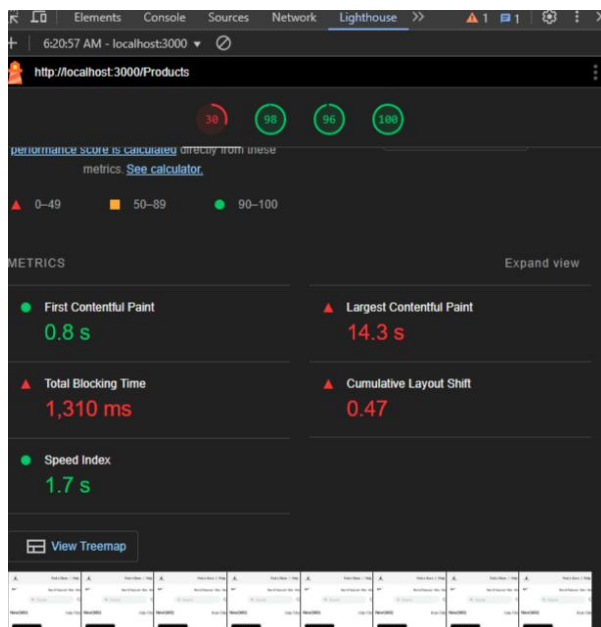
**Status:** High; needs optimization.

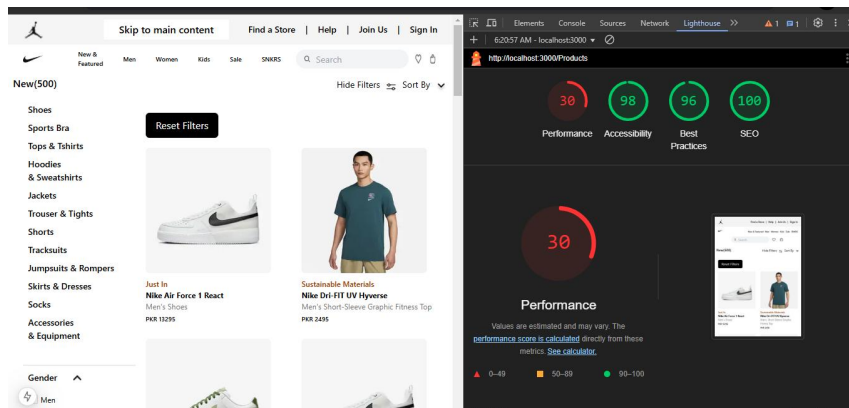
**Cumulative Layout Shift (CLS)** 0.47. CLS measures how much the page layout shifts while loading.

**Status:** Slightly high; should be closer to 0.1.

**Speed Index:** 1.7 seconds. Speed Index measures how quickly the page content becomes visible.

**Status:** Good.





## Cross-Browser and Device Testing

### Browser Testing Observations:

**Chrome:** Layout and functionality rendered perfectly.

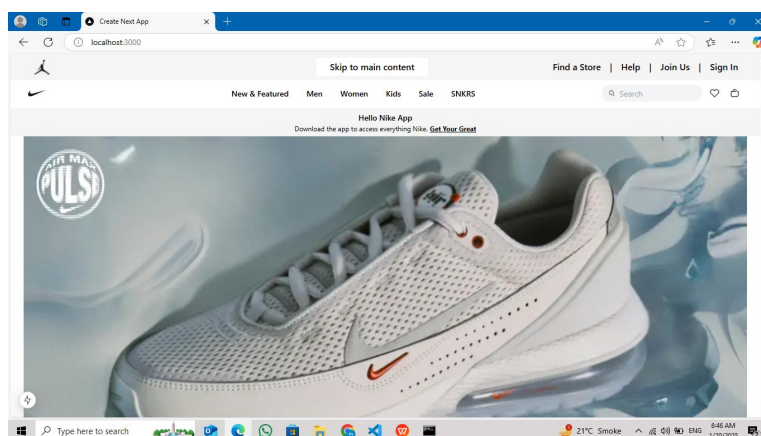
**Edge:** The application rendered perfectly with no issues.

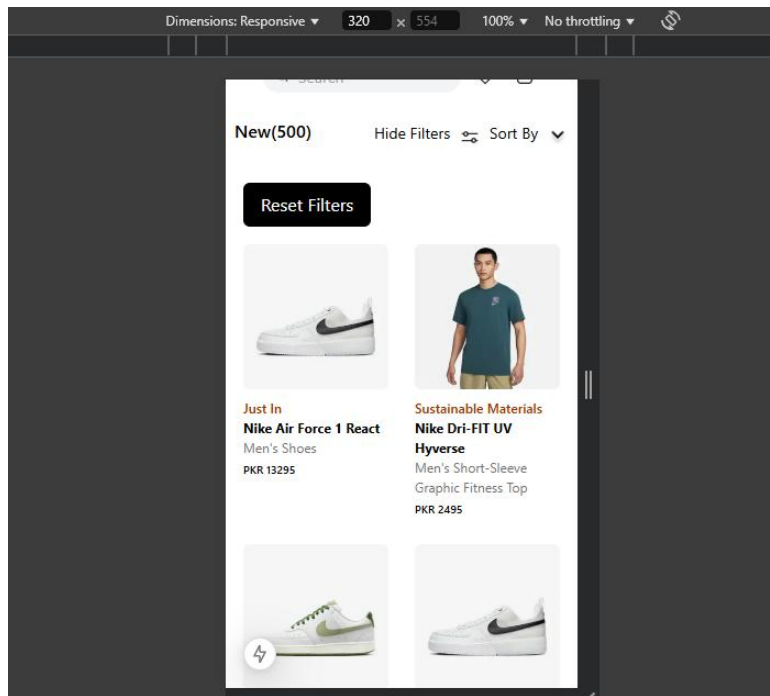
### Device Testing Observations:

Manually tested the application on mobile and tablet devices.

The application adjusted well to different screen sizes.

Buttons were easily tappable, and there was no horizontal scrolling.





## Security Testing

### 1. Wrong Email Approves and Goes to Order Confirmation

Email validation is not working as expected. It allows the order to be confirmed despite the invalid email.

### 2. API Link Uses HTTPS

The application uses secure communication by making API calls over HTTPS, ensuring data protection during transmission.