



Functional Testing Report for Nike E-commerce Website

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Date: January 21, 2025

Objective

To validate that all features of the Nike e-commerce website function as intended, providing a seamless user experience for browsing, purchasing, and interacting with the website.

Scope of Testing

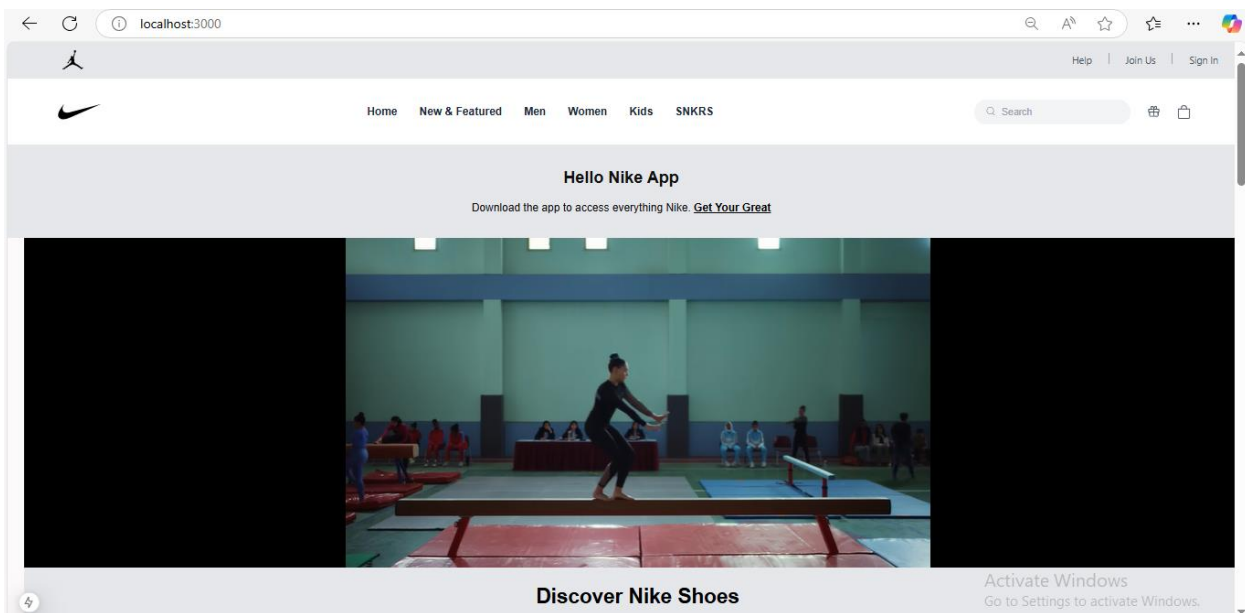
The testing covered critical functionalities, including navigation, user interaction, and backend integration to ensure a smooth shopping experience.

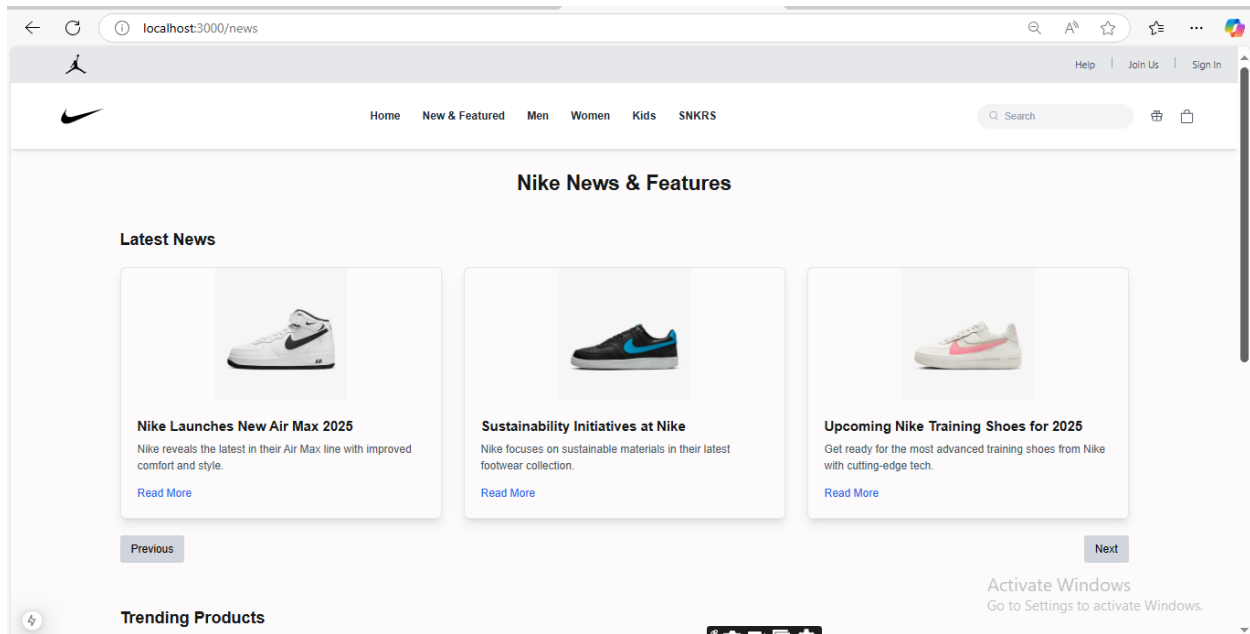
Functional Testing Results

1. Features Tested

Navigation Links:

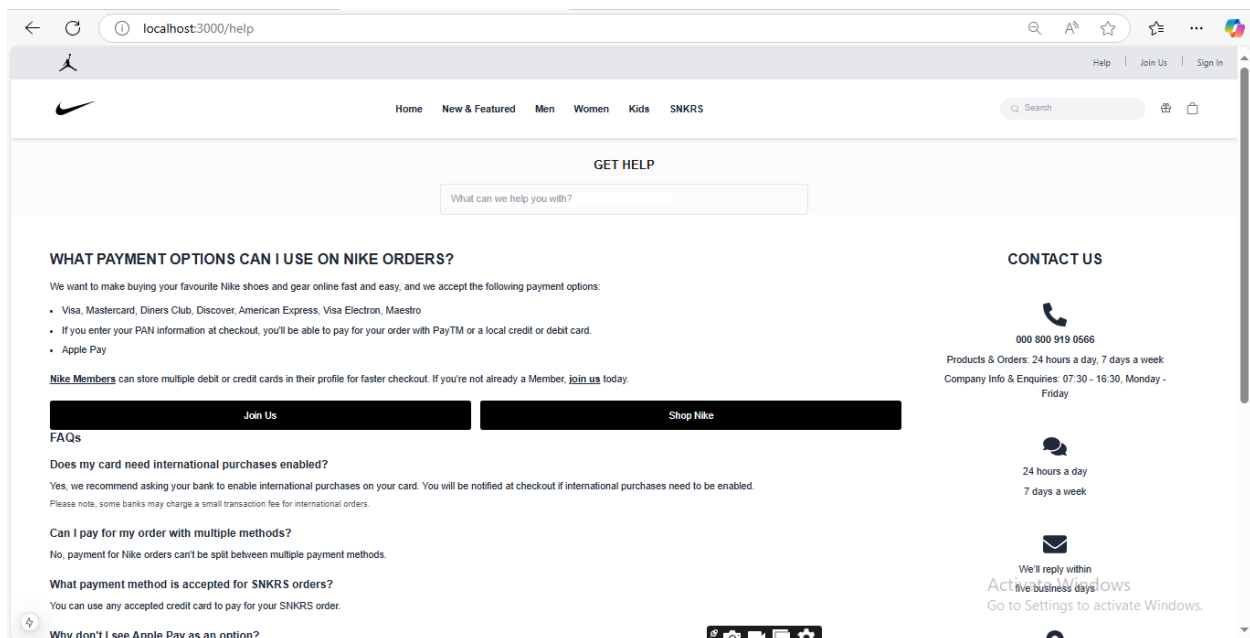
Verified all links for correct redirection.





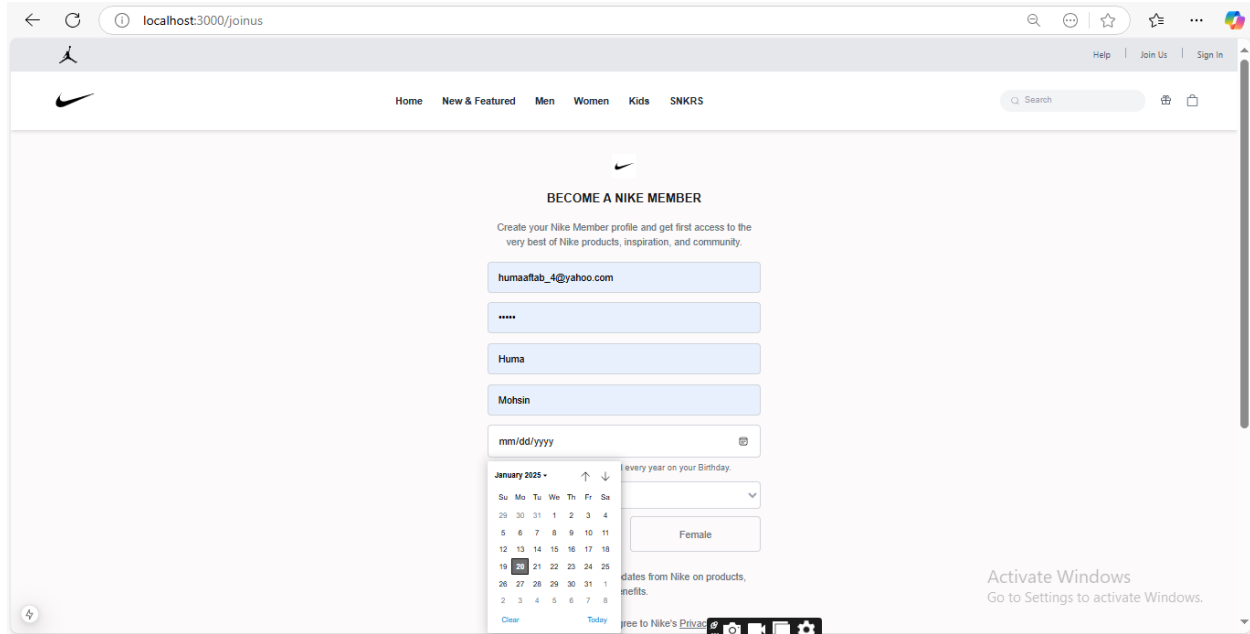
Help Route:

Displays store information but does not respond to interactions with icons (e.g., thumbs-up, call).



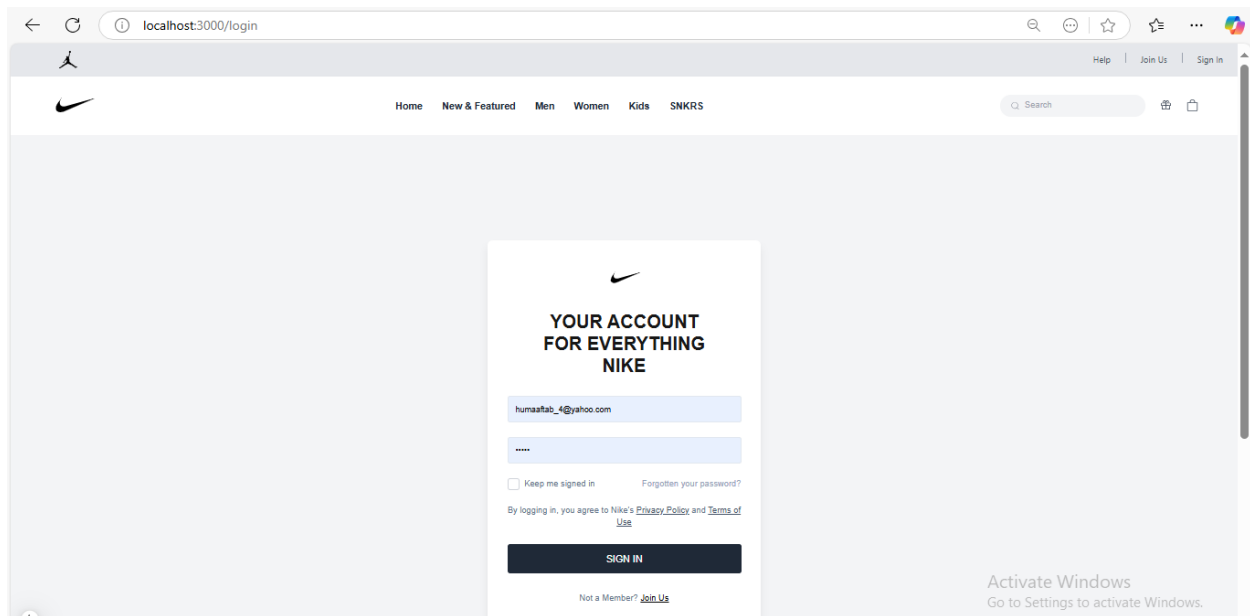
User Registration/Login:

User data is captured correctly but not stored in the database.



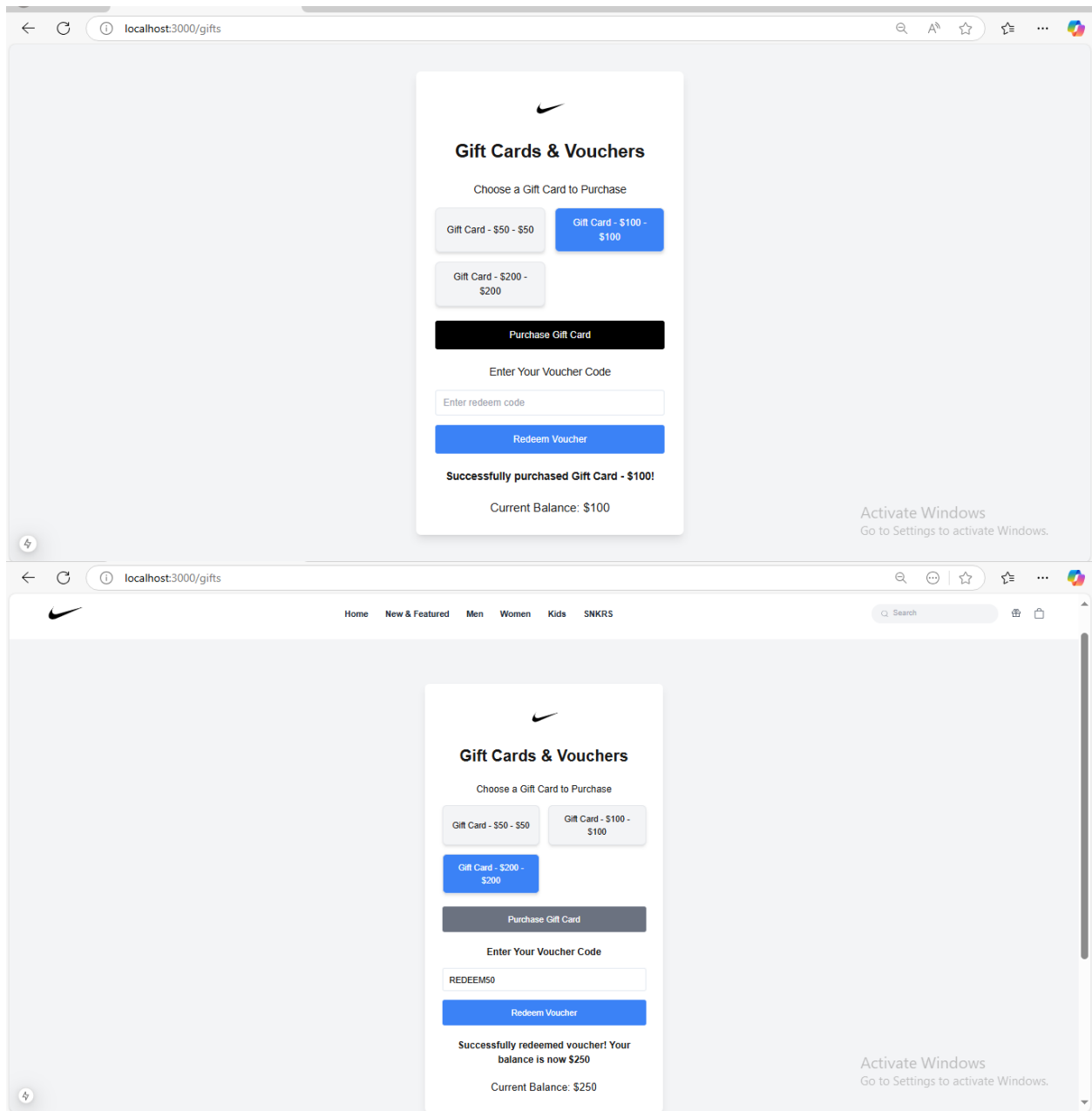
Sign-In:

Navigates correctly but fails to process submitted user information.



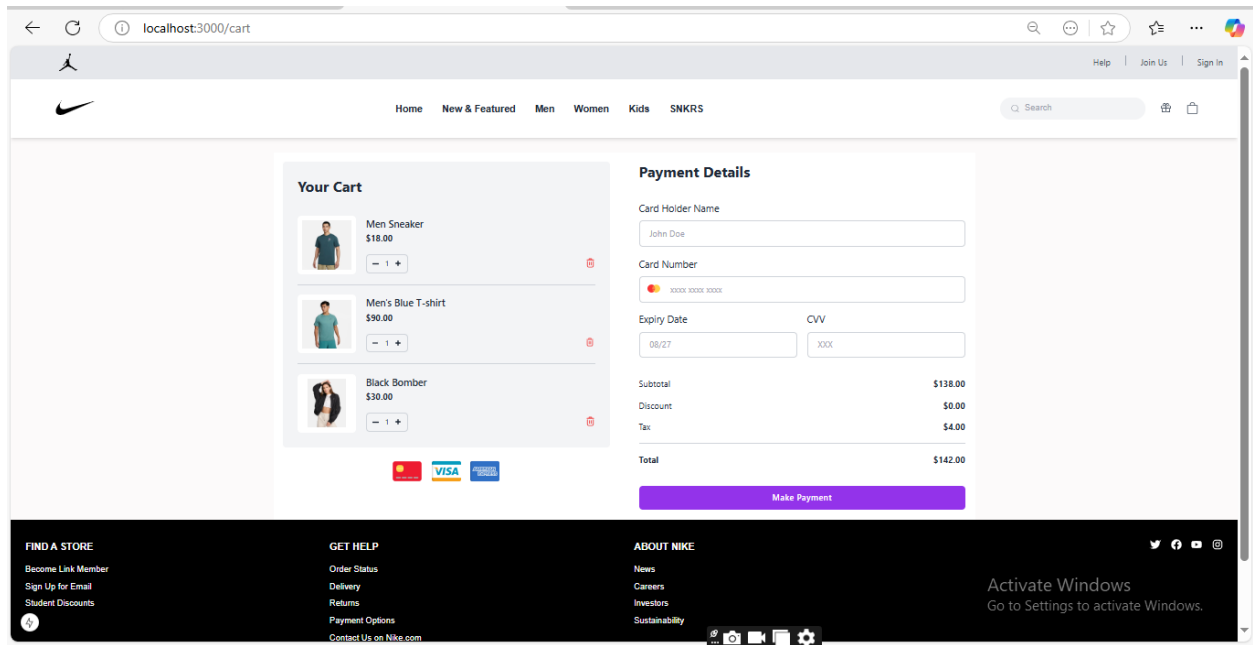
Gift Cards/Vouchers:

Works as expected; users can open the voucher window and select options or redeem vouchers.



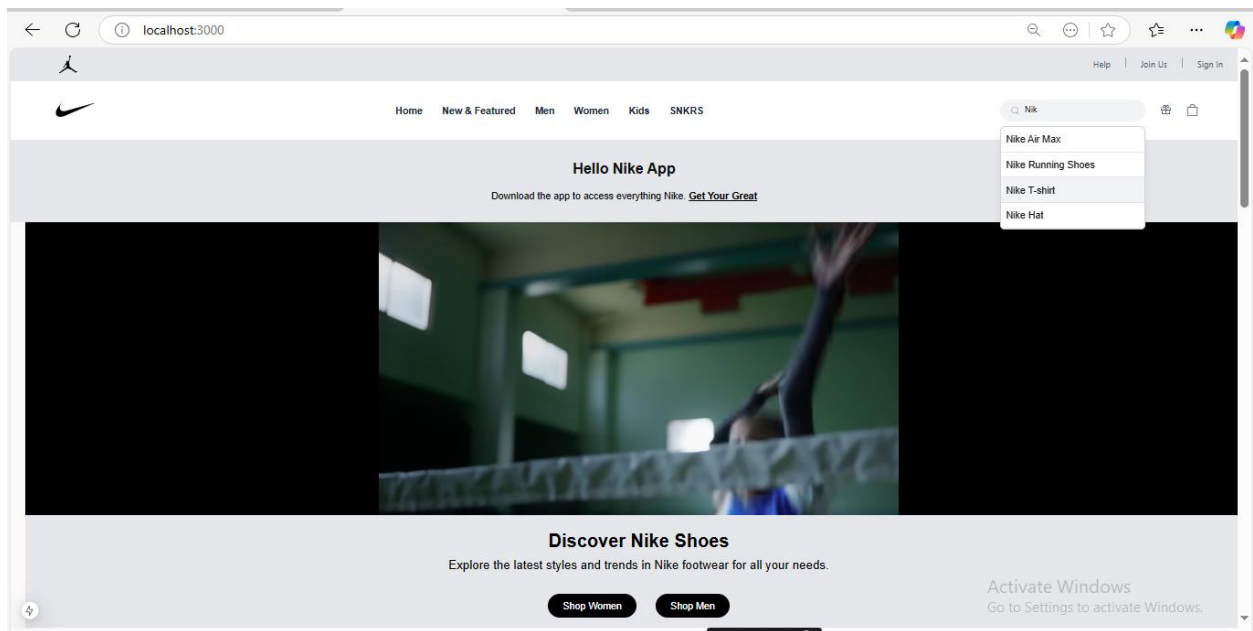
Add to Cart:

Does not capture real-time data or allow further shopping or checkout functionality.



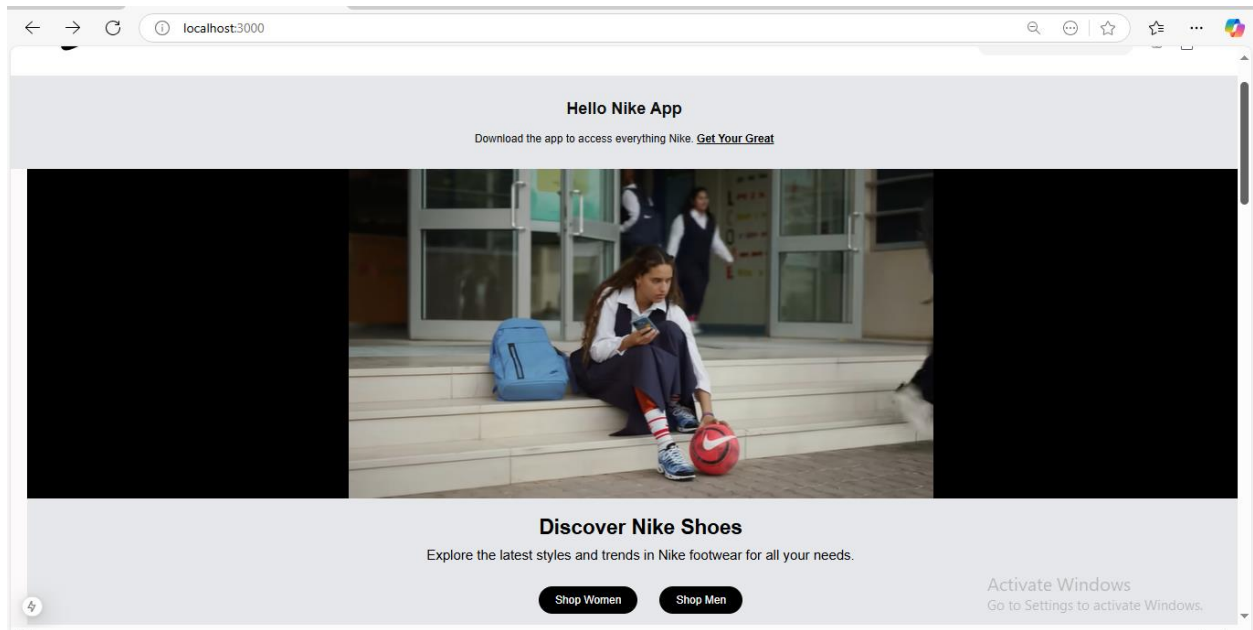
Search Bar:

Can only search hardcoded words. Fails to search patterns or partial terms.



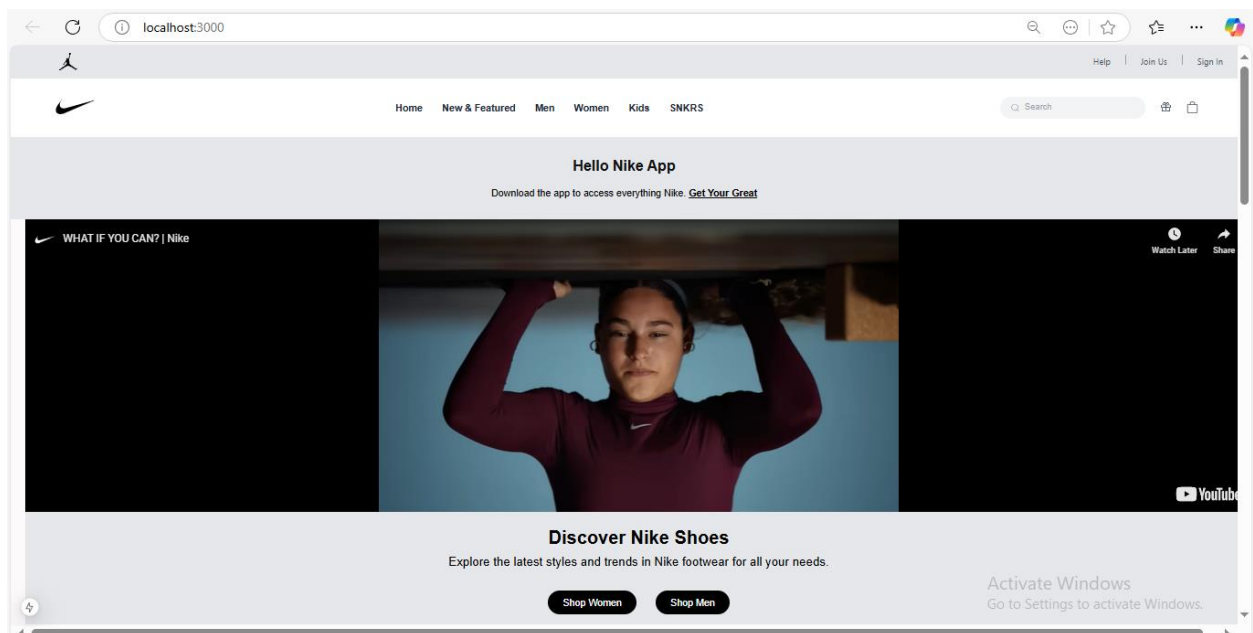
Video Embedding:

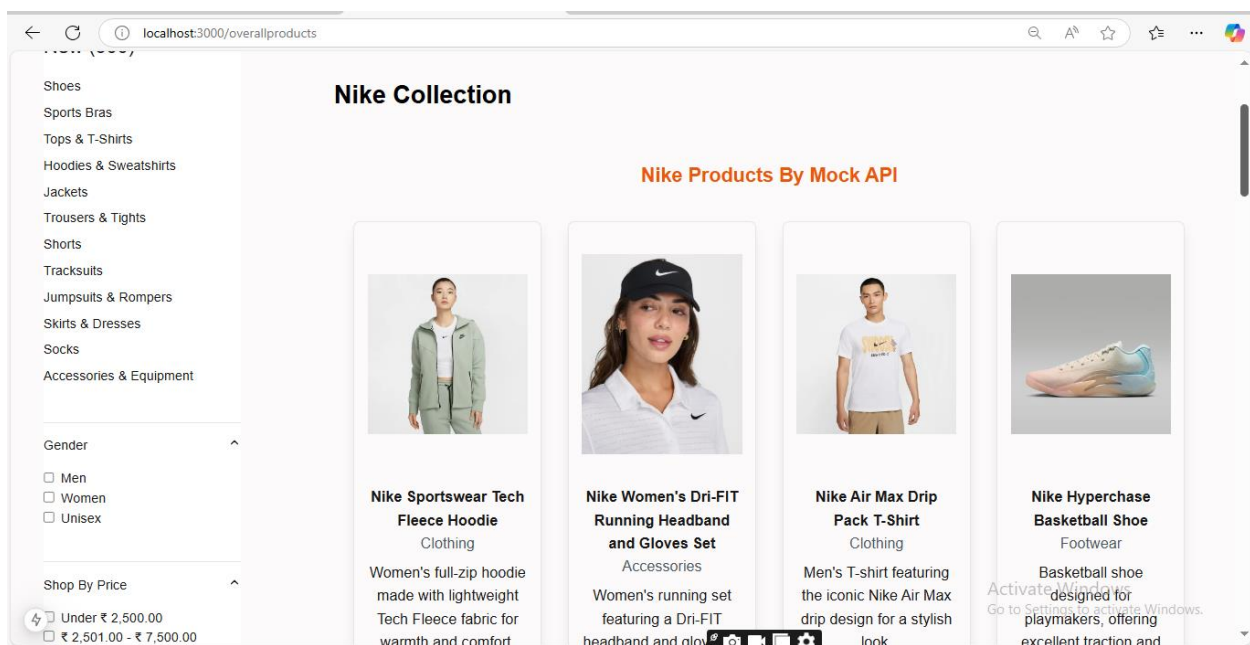
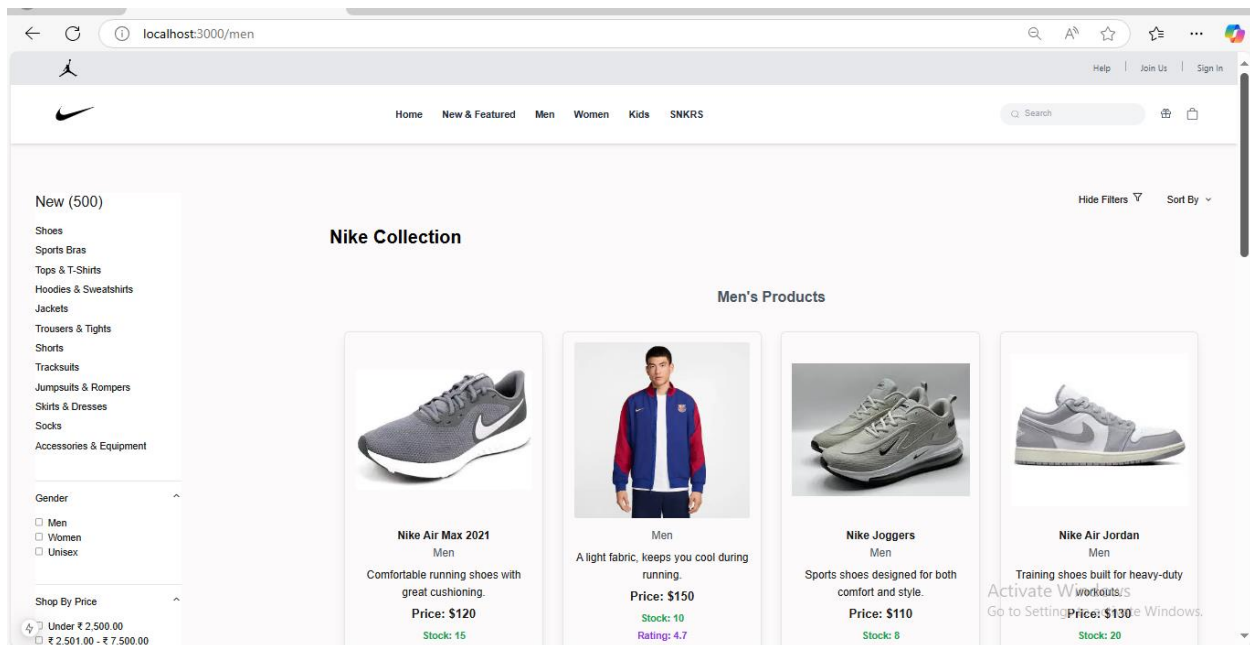
Landing page includes a functional YouTube product video.



Buttons (Men/Women):

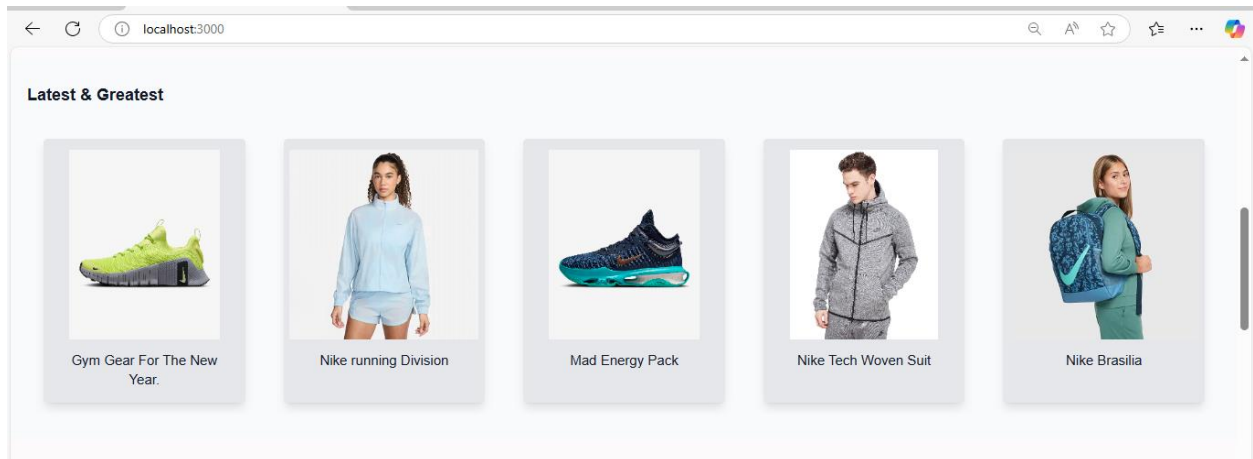
Correctly navigates to the relevant category routes.





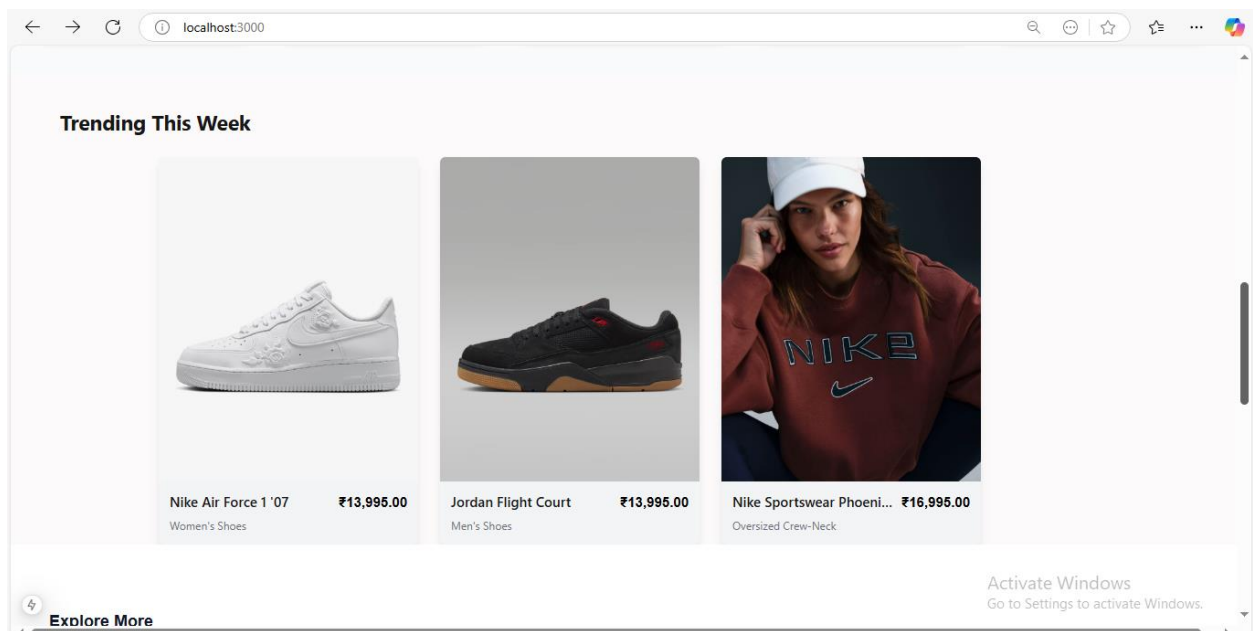
Picture Cards:

Displays product information but lacks functionality for navigation to specific product detail.



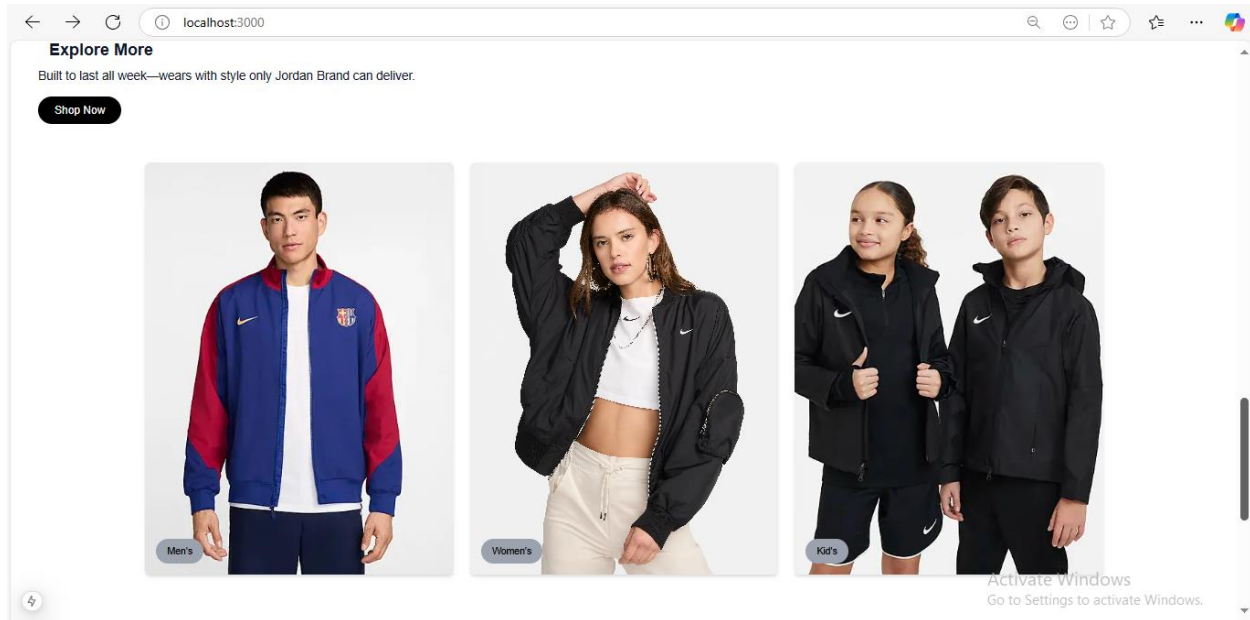
Trending Week Cards:

Shows product details but lacks a click event to navigate to the product's full details



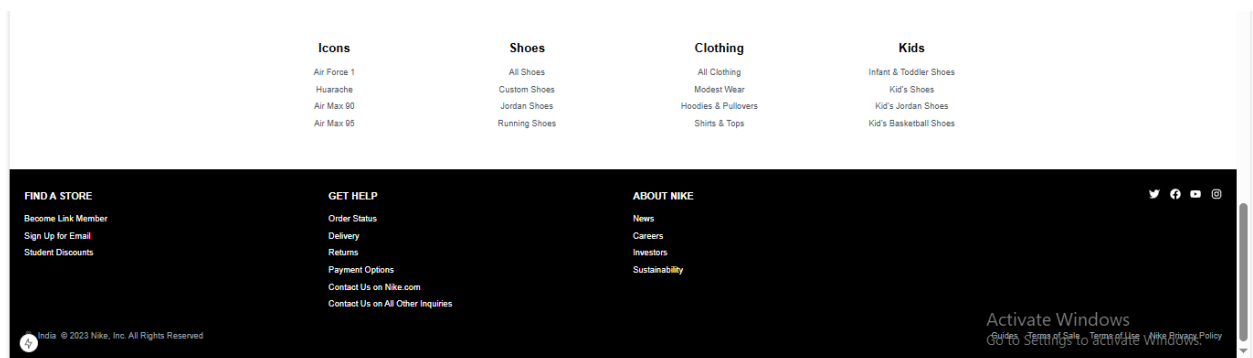
Explore More Section:

Displays categories (men, women, kids) but does not navigate to them.



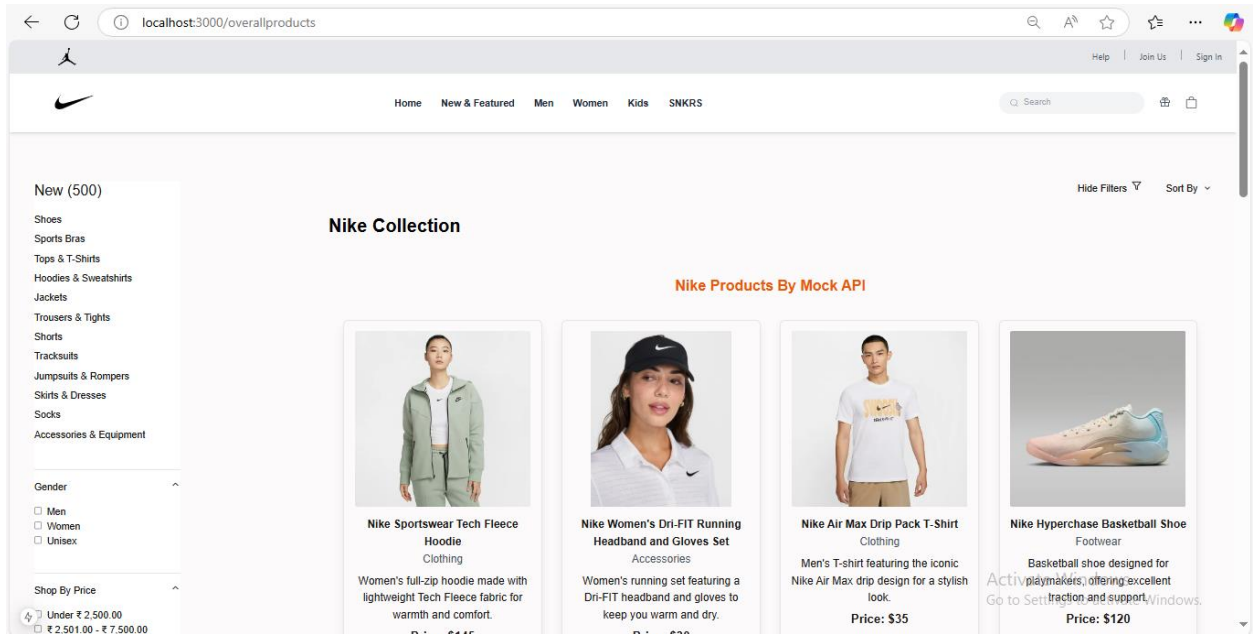
Footer Links:

Defined but non-functional for navigation.



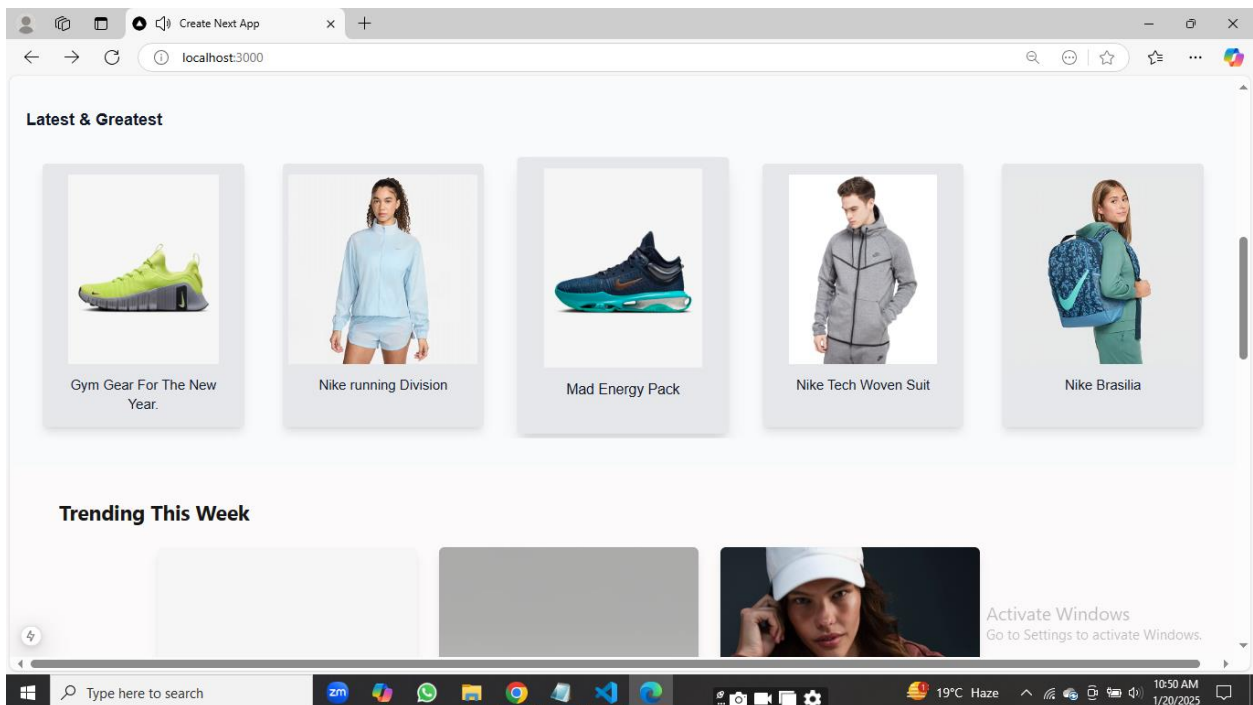
Menu Items:

Structured well but lacks click event functionality.



News and features:

It works properly, adds Pagination feature also.



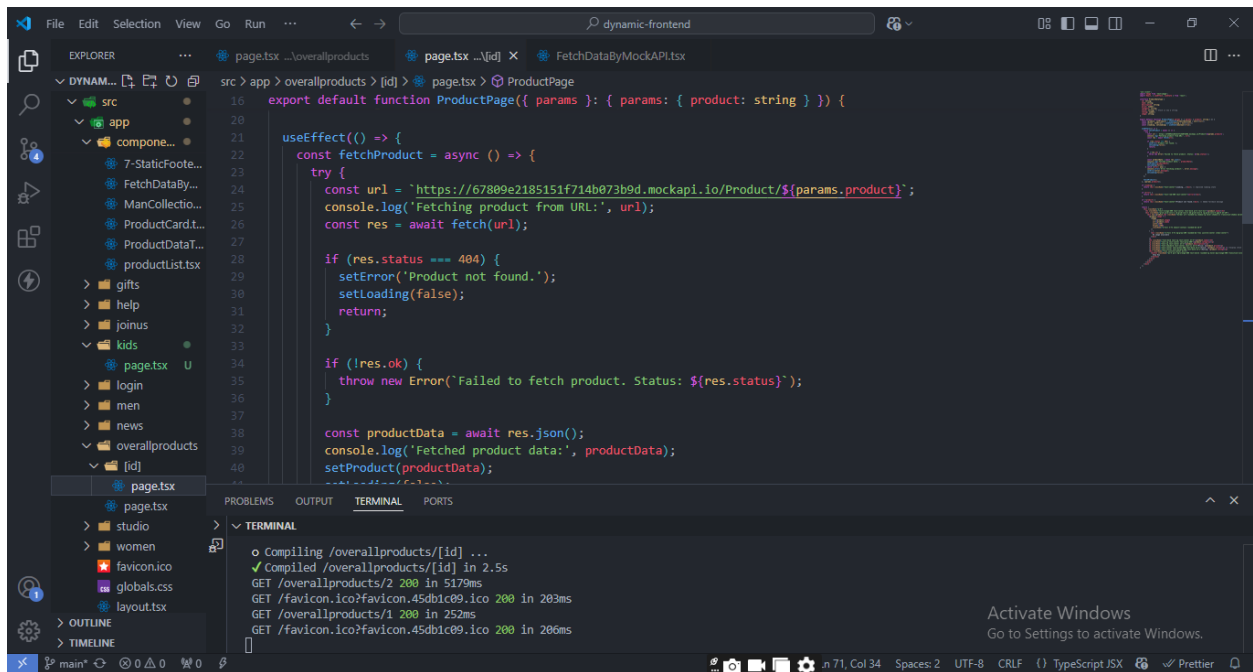
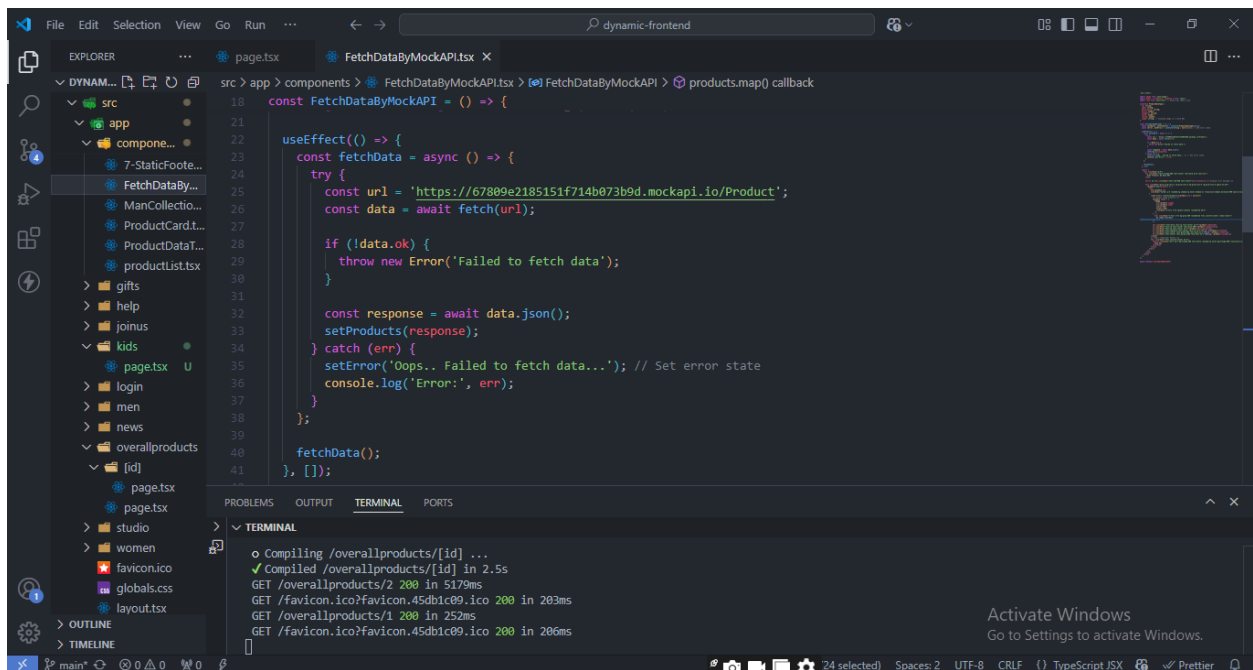
2. Product-Related Issues

- Products fetched from mock APIs instead of live databases.

Shop Now Button:	Non-functional when a product list is displayed.
Dynamic Routes:	Fails to fetch and display product details.
Filters and Hide Buttons:	Displayed but non-functional

Error Handling Observations

1. **Network Failures:**
 - Display error messages like "Unable to connect to the server. Please check your internet connection."
 - Ensure the app offers retry options without crashing.
2. **Invalid or Missing Data:**
 - Validate user input with specific error messages (e.g., invalid email).
 - Notify users if APIs return incomplete data.
3. **Server Errors:**
 - Display user-friendly messages like "Something went wrong. Please try again later."
4. **Fallback UI:**
 - Use placeholders or retry buttons when API data is missing.



```

src > app > overallproducts > [id] > page.tsx > ProductPage
16 export default function ProductPage({ params }: { params: { product: string } }) {
21   useEffect(() => {
22     const fetchProduct = async () => {
38       const productData = await res.json();
39       console.log("Fetched product data:", productData);
40       setProduct(productData);
41       setLoading(false);
42     } catch (error: any) {
43       console.error("Error fetching product:", error.message);
44       setError(error.message);
45       setLoading(false);
46     }
47   });
48   fetchProduct();
49 }, [params.product]);
50
51 if (loading) {
52   return <div className="text-center">Loading...</div>; // Improved loading state
53 }
54
55 if (error) {

```

o Compiling /overallproducts/[id] ...
 ✓ Compiled /overallproducts/[id] in 2.5s
 GET /overallproducts/2 200 in 5179ms
 GET /favicon.ico?favicon.45db1c09.ico 200 in 203ms
 GET /overallproducts/1 200 in 252ms
 GET /favicon.ico?favicon.45db1c09.ico 200 in 206ms

```

src > app > overallproducts > [id] > page.tsx > ProductPage
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21   useEffect(() => {
22     const fetchProduct = async () => {
45       setLoading(raise);
46     }
47   });
48   fetchProduct();
49 }, [params.product]);
50
51 if (loading) {
52   return <div className="text-center">Loading...</div>; // Improved loading state
53 }
54
55 if (error) {
56   return <div className="text-red-500 text-center">{error}</div>;
57 }
58
59 if (!product) {
60   return <div className="text-center">Product not found.</div>; // Added fallback message
61 }
62
63 return (
64

```

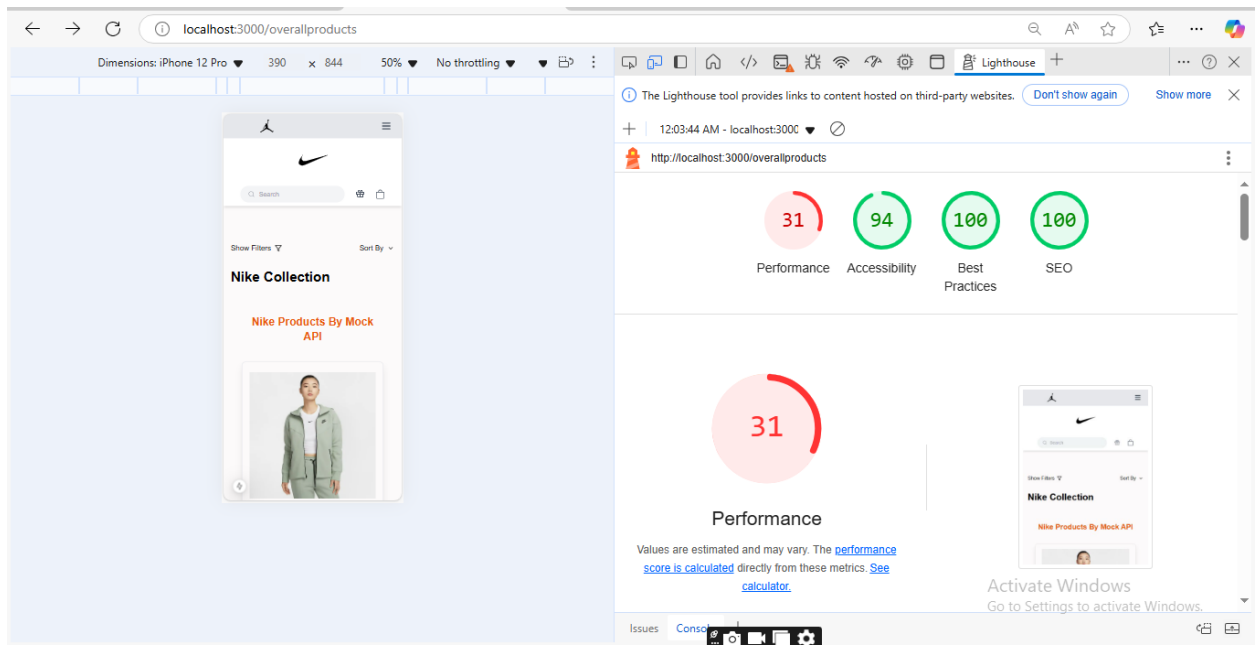
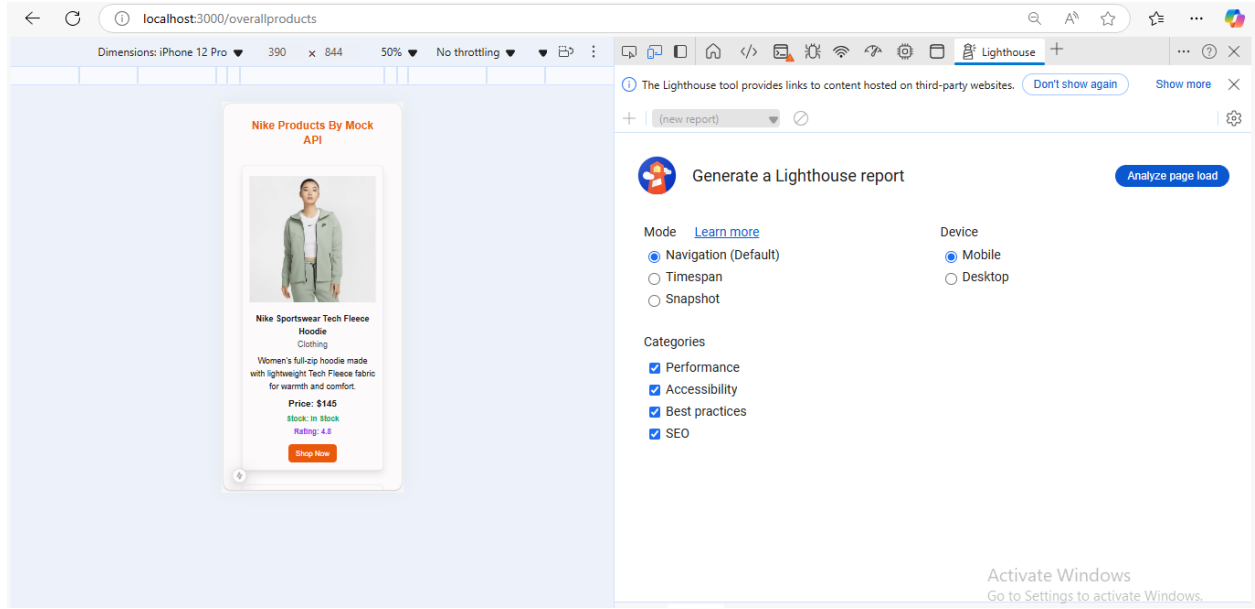
o Compiling /overallproducts/[id] ...
 ✓ Compiled /overallproducts/[id] in 2.5s
 GET /overallproducts/2 200 in 5179ms
 GET /favicon.ico?favicon.45db1c09.ico 200 in 203ms
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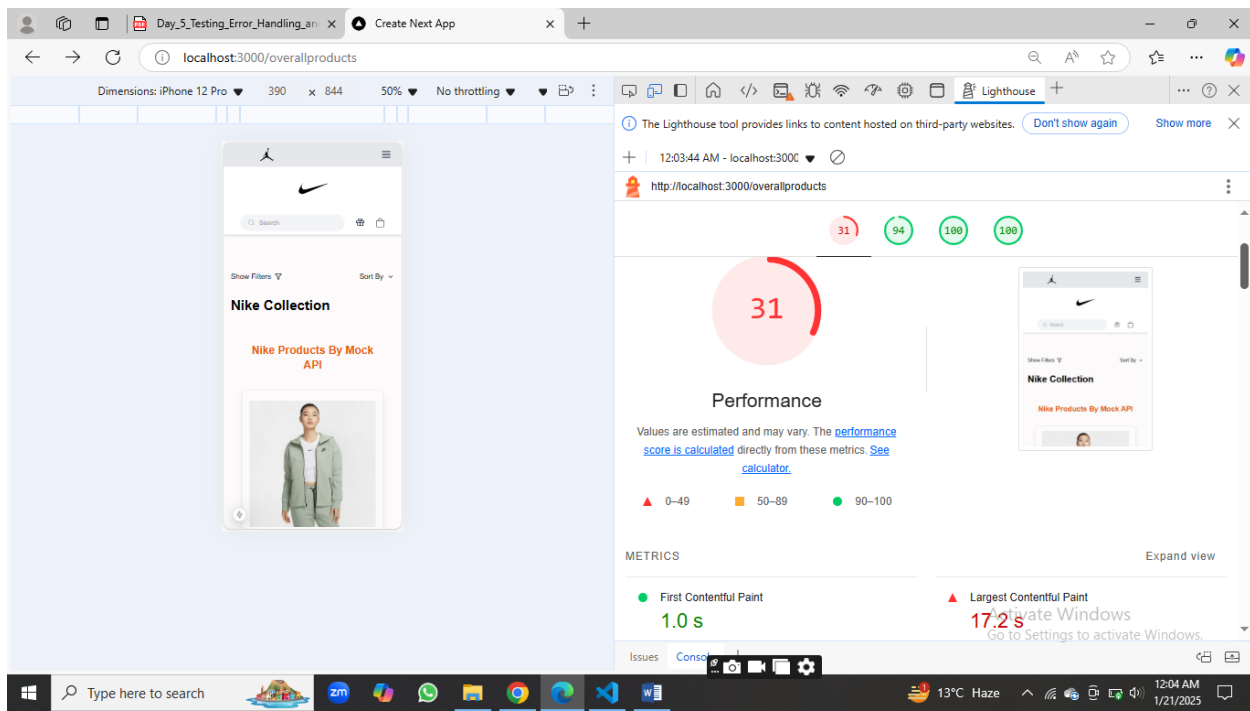
Performance Optimization

Tools Used: Google Lighthouse

Performance:	31\
Best Practices:	100

Accessibility:	94
SEO:	100





Cross-Browser and Device Testing

Browsers Tested: Chrome	Firefox, Safari, Edge
Devices Tested:	Tablet, Desktop, Mobile

Focus Areas:

- Responsive Design
- Consistent Navigation
- Verified accessibility features (keyboard navigation)

Security Measures

- Enforced HTTPS for all communications.
- Secured API keys using environment variables.
- Prevented injection attacks by validating user input and sanitizing data.

Documentation Updates

Compiled test results, resolutions, performance improvements, and security updates with supporting screenshots for future reference.

CSV for Functional Report

CSV for Functional Report is also attached.

Test Case ID	Description	Expected Result	Actual Result	Status	Severity	Remark
TC001	Navigation links	All links navigate correctly	Some links fail to navigate	Fail	High	Fix routing for broken links
TC002	User Registration and Login	User data is stored and login is successful	Data is not attached to DB	Fail	Critical	Fix DB connection and user data storage
TC003	Help Route	Icons and information respond properly	Icons do not respond	Fail	Medium	Ensure icon click events are handled
TC004	Sign-in Functionality	User can sign in successfully	No response after submitting data	Fail	Critical	Debug backend for sign-in data handling
TC005	Gift Cards and Vouchers	Voucher window opens and works correctly	Works as expected	Pass	Low	No issues found
TC006	Add to Cart	Captures data and proceeds to checkout	Fails to capture real-time data	Fail	Critical	Add data capture and checkout functionality
TC007	Search Bar	Search returns results dynamically	Search works only with hardcoded words	Fail	High	Implement dynamic search functionality
TC008	Video Embedding	YouTube video plays without issues	Works fine	Pass	Low	No issues found
TC009	Buttons for Men/Women	Navigate to appropriate routes	Works fine	Pass	Low	No issues found
TC010	Picture Cards	Navigate to desired category on click	No navigation functionality	Fail	Medium	Add event handling for navigation
TC011	Trending Week Cards	Navigate to product details on click	No click event mechanism	Fail	Medium	Implement click event for product details
TC012	Explore More Categories	Navigate to category-specific pages	No navigation functionality	Fail	High	Fix navigation for category pages
TC013	Footers	Navigate to specified routes	Navigation not implemented	Fail	Medium	Add footer navigation functionality
TC014	Shop Now Button	Proceed to product list on click	No functionality on click	Fail	Critical	Implement shop now functionality
TC015	Dynamic Product Route	Load product details on click	API failed to fetch product details	Fail	Critical	Debug API to fetch product details correctly
TC016	Overall Responsive Design	Responsive across all devices	Works as expected	Pass	Low	No issues found