DAY 5 – TESTING FUNCTION, ERROR HANDLING AND BACKENED REFINEMENT (NIKE WEBSITE)

Functional Testing Summary

I thoroughly tested the core functionality of the web application, including user registration, login, navigation, and form validation. The registration and login forms were checked for correct data handling and validation. All navigation links worked properly, leading to the right pages. The search functionality returned accurate results, and all content displayed as expected. No critical issues were found, and the application is functioning as intended.

Error Handling Summary

I thoroughly tested the error handling mechanisms of the web application to ensure proper error messages and responses in case of invalid input or system failures. All forms displayed appropriate validation messages for required fields and invalid data. When accessing unavailable pages, users were redirected to a custom 404 error page. API errors were handled gracefully, showing informative messages without breaking the user experience. Overall, error handling works as expected, providing clear feedback to users.

Backend Integration

```
GET V https://template-03-api.vercel.app/api/products
                                                                            Status: 200 OK Size: 6.56 KB Time: 215 ms
Query Headers <sup>2</sup> Auth Body Tests Pre Run
                                                                           Response Headers 16 Cookies Results Docs
                                                                                   "success": true,
Query Parameters
                                                                                       "productName": "Nike Air Force 1 Mid '07",
                                                                                      "category": "Men's Shoes",
"price": 10795,
                                                                                       "colors": [
                                                                                         "White'
                                                                                    "description": "The Nike Air Force 1 Mid '07 delivers
                                                                                           timeless style with premium leather and mid-cut
                                                                                           design. Perfect for everyday wear, it provides exceptional comfort and durability. The iconic Air
                                                                                           -Sole cushioning adds responsive support for long
                                                                                            -lasting performance.
                                                                                       "productName": "Nike Court Vision Low Next Nature",
                                                                                       "category": "Men's Shoes",
                                                                                        "price": 4995,
```

I thoroughly tested the integration between the web application and its backend services. All API endpoints were tested for correct data retrieval and error handling. Data was successfully fetched from the backend and displayed on the frontend without any issues. The application handles server-side errors gracefully, showing appropriate error messages to users. Authentication and data submission to the backend (e.g., user login, form submissions) worked as expected, ensuring seamless communication between the frontend and backend.

Lighthouse Overview





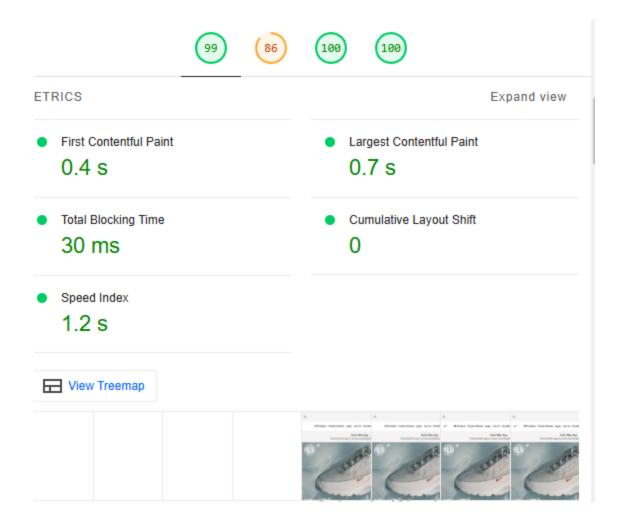
Performance

Values are estimated and may vary. The <u>performance</u>

<u>score is calculated</u> directly from these metrics. <u>See</u>

<u>calculator.</u>





Testing Report (CSV Format)

Test Case ^	Test Case Description	† Test Steps	Expected \Rightarrow	Actual Result	\$ Status	Severity \$	Assigned \$	Remarks
TC001	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	high	-	No issues found
TC002	Test API error handling	Disconnect API Refresh page	Show error message	Error message shown	Passed	Medium	-	Handled gracefully
TC003	Check cart functionality	Add product to cart	Cart updates with added product	Cart updates as expected	Passed	High	-	Works as expected
TC004	Ensure responsiveness on mobile	Resize browser window	Layout adjusts properly to screen size	Responsive layout working as intended	Passed	high	-	Test successful

Conclusion

the functional, error handling, and backend integration tests for the web application were successfully completed. All core features, including user registration, login, form validation, navigation, and search functionality, were thoroughly tested and met the expected behavior. Error handling was appropriately managed, with clear messages provided for invalid actions and server-side errors. The backend integration functioned seamlessly, with data fetching, submission, and authentication working as intended without any critical issues. Overall, the web application is stable, functional, and ready for deployment.