\*\*Day 5 - Testing and Backend Refinement - [E-Commerce Clothing Website]\*\*

\*\*1. Functional Deliverables:\*\*

- \*\*Functional Testing:\*\*

- Tested core features like product listing, filters, search, and cart operations.

- Verified dynamic routing for product detail pages.

- \*\*Error Handling:\*\*

- Implemented fallback UI for API failures (e.g., "No products available").

- \*\*Performance Optimization:\*\*

- Used Lighthouse to optimize load times and fix performance bottlenecks.

- \*\*Cross-Browser Testing:\*\*

- Tested on Chrome, Firefox, Safari, and Edge for consistent rendering.

- \*\*Security Testing:\*\*

- Validated inputs and ensured secure API communication.

\*\*2. Testing Report (CSV Format):\*\*

- \*\*CSV Structure:\*\*

```csv

Test Case ID,Test Case Description,Test Steps,Expected Result,Actual Result,Status,Severity Level,Assigned To,Remarks

1,Product Listing,Load product page,Products displayed,Products displayed,Passed,Low,N/A,N/A

2,Search Functionality,Search for "shirt",Relevant results,No results found,Failed,High,Developer,API issue

3,Cart Operations,Add item to cart,Item added,Item added,Passed,Medium,N/A,N/A

```

- \*\*Sample CSV:\*\* [Download Link](#)

\*\*3. Documentation:\*\*

- \*\*Testing Results:\*\*

- Functional testing completed for all core features.

- Identified and resolved API integration issues.

- \*\*Performance Optimization:\*\*

- Compressed images using TinyPNG.

- Reduced unused CSS and JavaScript.

- \*\*Security Measures:\*\*

- Sanitized inputs to prevent XSS attacks.

- Secured API keys using environment variables.

- \*\*Challenges and Resolutions:\*\*

- Fixed search functionality by correcting API endpoint.

- Improved load times by enabling lazy loading.

\*\*4. Repository Submission:\*\*

- All files uploaded to GitHub under a well-structured folder hierarchy.

- Updated README file with testing instructions and summary.

\*\*Checklist for Day 5:\*\*

- \*\*Functional Testing:\*\* ✔

- \*\*Error Handling:\*\* ✔

- \*\*Performance Optimization:\*\* ✔

- \*\*Cross-Browser Testing:\*\* ✔

- \*\*Security Testing:\*\* ✔

- \*\*Documentation and Submission:\*\* ✔

\*\*Conclusion:\*\*

All tasks for Day 5 have been completed successfully. The marketplace has been thoroughly tested, optimized for performance, and secured for real-world deployment. Documentation and testing reports adhere to professional standards.