Day 5 - Testing, Error Handling, and Backend Integration Refinement

1. Introduction

This document outlines the testing, error handling, and backend integration refinement process for the Comforty Marketplace.

2. Functional Testing

Functional testing included product listing, filters, cart operations, and dynamic routing using tools like Postman, React Testing Library, and Cypress.

3. Error Handling

Implemented error messages for network failures, invalid/missing data, and unexpected server errors.

4. Performance Optimization

Optimized images, lazy-loaded assets, and reduced unused CSS/JS, improving performance from 4.5s to 1.8s.

5. Cross-Browser and Device Testing

Tested on Chrome, Firefox, Safari, and Edge, ensuring compatibility across devices using BrowserStack and LambdaTest.

6. Security Testing

Applied input validation, HTTPS encryption, and API key security, with vulnerability scanning using OWASP ZAP and Burp Suite.

7. User Acceptance Testing (UAT)

Conducted real-world scenario tests like browsing, adding to cart, and checkout, fixing responsiveness issues.

8. Documentation & Reporting

Submitted CSV-based testing reports with screenshots and logs as per Hackathon guidelines.

9. Conclusion

All functionalities tested and optimized, ensuring a high-performance, secure, and user-friendly marketplace.