**Day 5 - Testing and Backend Refinement - Furniture Bazaar E-commerce**

# **1. Testing Report (CSV Format**

**Download CSV:**   
https://github.com/Jawad-Chaudhary/Hackathon--Jam--2024/blob/main/Day1-2-3-4-5-6-7/Tests/Reports/testing\_report\_furniture\_bazaar.csv

# **2. Documentation Report**

## **Test Cases Executed**

* **Tools Used:** Lighthouse (performance audits), Thunder Client (API testing).
* **Scope:** Cart functionality, search, checkout flow, and Sanity CMS API endpoints (e.g., /products).
* **Results:** All 5 critical test cases passed.

## **Performance Optimizations**

* **Image Compression:** Reduced image sizes via Sanity’s built-in image pipeline.
* **Caching:** Implemented client-side caching for Sanity API responses to reduce load times.

## **Security Measures**

* **Input Sanitization:** Sanitized search bar input to prevent XSS attacks.
* **Secure API Handling:** Used environment variables to store Sanity project IDs.

## **Backend Refinement**

* **Sanity CMS:** Optimized GROQ queries for faster /products endpoint responses.
* **Error Handling:** Added try-catch blocks to API calls with fallback UI messages (e.g., “Failed to load products”).

## **Challenges & Resolutions**

* **Challenge:** Initial cart state loss on page refresh.
* **Resolution:** Switched from sessionStorage to localStorage for persistence.

# **3. Lighthouse Report**

**Lighthouse-report.pdf:**  
https://github.com/Jawad-Chaudhary/Hackathon--Jam--2024/blob/main/Day1-2-3-4-5-6-7/Tests/Reports/lighthouse-report.pdf