

Day 5 - Testing and Backend Refinement - General Ecommerce

Functional Deliverables

1. Screenshots or Recordings

- **Description:** Visual evidence of functional and responsive components.
 - **Components Covered:**
 - Product listing and detail pages.
 - Functional category filters, search bar, and pagination.
 - Responsive design elements across devices.
 - **Logs and Reports:**
 - Testing logs from Lighthouse for performance and accessibility.
 - API testing results from Postman showcasing successful requests and responses.
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Testing Report (CSV Format)

Example CSV Structure

Refer to the example CSV structure provided in the Marketplace Builder 2025 Hackathon repository: [Testing Report Sample CSV](#)

Documentation

Details to Include

Test Cases Executed and Results

- **Summary:** Outline the key test cases executed and their statuses.
- **Key Findings:** Highlight any major issues identified during testing.

Performance Optimization Steps

- **Lighthouse Insights:** Summarize the performance scores and actions taken.
- **Optimization Measures:**
 - Code splitting to reduce bundle size.
 - Lazy loading for images and components.
 - Minification of JavaScript and CSS files.

Security Measures Implemented

- **Authentication:** Secured API endpoints with authentication tokens.
- **Validation:** Added input validation to prevent injection attacks.
- **Encryption:** Ensured sensitive data transmission using HTTPS.

Challenges Faced and Resolutions Applied

- **Challenge 1:** Debugging dynamic API routes.
 - **Resolution:** Implemented detailed error logging and monitoring.
 - **Challenge 2:** Handling large datasets efficiently.
 - **Resolution:** Introduced pagination and server-side rendering.
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Repository Submission

Updates Made

- **Files Updated:**
 - Components and pages.
 - Testing report in CSV format.
 - README file with testing instructions.

Folder Hierarchy

- **Root Directory:**
 - `components/` - All reusable components.
 - `app/` - Next.js pages and routing logic.
 - `api/` - Backend integration scripts.
 - `README.md` - Summary of updates and testing instructions.