

Testing Report

Overview

This document provides a detailed testing report for the marketplace e-commerce project, highlighting the test cases executed, expected and actual results, and their statuses.

Testing Summary

The testing process focused on the following key areas:

- 1. **Functional Testing:** Validated core functionalities such as product listing, cart operations, and checkout.
- 2. **Error Handling:** Tested scenarios like empty carts and invalid inputs.
- 3. **Performance Testing:** Ensured the application met performance benchmarks.
- 4. **Cross-Browser Testing:** Verified consistent rendering across major browsers.
- 5. **Security Testing:** Checked for vulnerabilities like SQL injection and XSS attacks.

| Test Case ID | Test Case Description | Test Steps | Expected Result | Actual Result | Status | Severity Level | Assigned To | Remarks |
|--------------|-----------------------------|---|---|----------------------------|--------|----------------|-------------|---------|
| TC001 | Validate product listing | 1. Navigate to homepage 2. Check product display | Products should be displayed correctly | Products displayed | Passed | Low | N/A | N/A |
| TC002 | Validate filters and search | 1. Use filters 2. Search for a product | Correct products should be displayed based on filters | Correct products displayed | Passed | Medium | N/A | N/A |
| TC003 | Validate cart operations | 1. Add product to cart 2. Update quantity 3. Remove product | Cart should reflect changes correctly | Cart updated correctly | Passed | High | N/A | N/A |

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| TC004 | Validate dynamic routing | 1. Click on a product2. Verify product detail page loads | Product detail page should load correctly | Product detail page loaded | Passed | Low | N/A | N/A |
| TC005 | Handle empty cart error | 1. Navigate to cart with no items | Consistent rendering and functionality | Message displayed | Passed | Medium | N/A | N/A |
| TC006 | Handle empty cart error | Use Lighthouse to analyze performance | Performance score above 90 | Score: 92 | Passed | High | N/A | N/A |
| TC007 | Validate input fields | 1. Submit forms with invalid data | Show validation error messages | Error messages displayed | Passed | High | N/A | N/A |
| TC008 | Test cross-browser compatibility | Test on Chrome, Firefox, Safari, Edge | Consistent rendering and functionality | Consistent across all browsers | Passed | Medium | N/A | N/A |
| TC009 | Test security measures | 1. Attempt SQL injection2. Attempt XSS attack | Application should not be vulnerable | No vulnerabilities found | Passed | High | N/A | N/A |
| TC010 | User Acceptance Testing (UAT) | 1. Browse products2. Add to cart3. Checkout | Workflows should be intuitive and error-free | Workflows were intuitive | Passed | Medium | N/A | N/A |
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