Test Strategy

Introduction

This document outlines the approach taken for testing the Magento e-commerce demo site (https://magento.softwaretestingboard.com/) as part of the QA assessment. The testing scope covers manual exploratory testing and automated test scripting using Playwright.

Objectives

- Identify critical bugs impacting core user flows

- Validate key user journeys including search, product selection, cart operations, and checkout initiation

- Automate core flows for regression and CI integration

Scope

- Manual exploratory testing focusing on homepage navigation, search, product detail, cart, and checkout initiation flows

- Automated testing of critical flows: search → product → add to cart → verify cart update

- GitHub Actions setup to run automation on code push and pull requests

Testing Types

- Exploratory Testing: Used to uncover functional and UI issues without predefined scripts, emphasizing usability and consistency

- Automated Testing: Targeted at core flows to ensure repeatable validation and support CI pipelines

Environment

- Target site: https://magento.softwaretestingboard.com/

- Browser: Chromium via Playwright Test framework

- Local environment setup: Node.js with npm and Playwright dependencies

Tools

- Playwright for automation

- GitHub Actions for CI pipeline

- Markdown for bug reporting and documentation

Test Data

- Products and search terms as available on the live demo site

- Various combinations of sizes, colors, and quantities in cart tests

Test Coverage

- Homepage search and filter validation

- Product detail page UI and functionality (size, color, image changes)

- Cart operations (add, update quantity, verify cart contents)

- Checkout initiation with form validation

- Accessibility and keyboard navigation issues identified during exploratory testing

Risk & Mitigation

- Dependency on demo site availability mitigated by fallback site option

- Automation limited to core flows; exploratory testing covers edge and UI inconsistencies

Deliverables

- Bug report with detailed issues found during manual testing

- Automated test scripts in Playwright under /tests directory

- GitHub Actions workflow file for CI

- Documentation including this test strategy, test cases, and README instructions