**Test Strategy Document**

**1. Overview**

This document outlines the overall strategy for testing the Demo Web Shop e-commerce platform to ensure high-quality releases and seamless end-user experience, regardless of the employed methodology (Agile/Waterfall).

**2. Objectives**

* Ensure all core flows (registration, login, product browsing, adding to cart, checkout, etc.) work as intended.
* Validate business requirements and user stories.
* Identify defects early and reduce production issues.
* Assess system stability, security, performance, and usability.

**3. Test Scope**

**In Scope:**

* UI/UX Testing: Desktop and mobile browsers.
* Functional Testing: Registration, login, shopping cart, wishlist, checkout, payments, order history, etc.
* API Testing: If API endpoints are exposed.
* Integration Testing: Payment gateways, third-party plugins.
* Regression Testing.
* Usability Testing.
* Performance and Load Testing.
* Security Testing (OWASP Top 10 focus).

**Out of Scope:**

* Localization/Internationalization (unless specified).
* External system integrations not in current scope.

**4. Test Levels**

* Unit Testing (dev responsibility, primarily automated)
* Integration Testing
* System Testing
* User Acceptance Testing (UAT)
* Regression Testing

**5. Test Types & Tools**

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| **Test Type** | **Tools (examples)** |
| UI Functional | Selenium, Cypress, Playwright |
| API | Postman, REST-assured |
| Performance | JMeter, Locust |
| Security | OWASP ZAP, Burp Suite |
| Tracking | JIRA, TestRail |

**6. Test Design Techniques**

* Equivalence Partitioning
* Boundary Value Analysis
* State Transition Testing
* Exploratory Testing

**7. Test Data Management**

* Use anonymized, reusable data sets.
* Create, refresh, and mask test data as required.

**8. Environment Requirements**

* DEV, QA, UAT environments resembling production.
* Regular refreshes and access control.

**9. Entry & Exit Criteria**

**Entry:** Requirements finalized (Waterfall) or user story ready (Agile).  
 **Exit:** All critical/blocker defects fixed; test cases executed with desired pass rate.

**10. Risk & Mitigation**

**Risks:** Late requirement changes, unstable test environment.  
 **Mitigation:** Regular sync with stakeholders, environment monitoring tools.