**Test Plan Document**



**Project Name:** DemonopCommerce

**Base URL:** [*https://demo.nopcommerce.com*](https://demo.nopcommerce.com)**Version:** 1.0 **Date:** 5-September-2025 **Prepared By:** Ankush

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Author | Description |
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**1. Introduction**

This Test Plan defines the approach, scope, resources, and schedule for testing the **nopCommerce Storefront**. The purpose is to validate the functionality, usability, and stability of the **public shopping site**. Testing will ensure customers can browse products, register, log in, add items to cart, and manage their shopping experience without defects.

**1.1 Test Objectives**

* Validate **core customer workflows** (registration, login, category navigation, product selection, shopping cart).
* Ensure **UI responsiveness and cross-browser compatibility**.
* Verify **product details and configurable specifications**.
* Validate **shopping cart accuracy** (pricing, quantity, subtotal).
* Maintain **regression stability** across releases.

**1.2 Test Scope**

**1.2.1 In Scope**

* Registration and Login workflows.
* Category and subcategory navigation.
* Product details, sorting, filtering, and add-to-cart.
* Shopping cart preview and management.
* UI validation across browsers.
* Edge case handling (empty fields, invalid credentials).

**1.2.2 Out of Scope**

* Admin panel testing.
* Third-party plugin behavior.
* End-to-end payment gateway flows (beyond cart).
* Performance/load testing at scale.

**1.3 Roles and Responsibilities**

|  |  |
| --- | --- |
| Role | Responsibility |
| QA Lead | Strategy, planning, reporting |
| Automation Engineer | Selenium + TestNG script development |
| Manual Tester | Exploratory and edge case testing |
| Developer | Bug fixes and environment support |

**2. Test Methodology**

**2.1 Agile Test Approach Overview**

* Test cases derived from **user stories & acceptance criteria**.
* Iterative testing within sprints.
* **Continuous Integration** executes automated regression after builds.
* Defects logged and triaged in daily stand-ups.
* **Exploratory testing** complements automation.

**2.2 Test Levels**

* Unit Testing (by Dev team).
* Integration Testing (UI flows + backend).
* System Testing.
* User Acceptance Testing (UAT).
* Automated Regression Testing.

**2.3 Defect Management**

* Tool: **Jira**
* Workflow: New → Assigned → In Progress → Fixed → Retest → Closed.
* Defects triaged in daily stand-ups.
* Root cause analysis for recurring issues.

**2.4 Sprints**

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint | Focus Area | Start Date | End Date |
| Sprint 1 | Requirement Analysis, Test Strategy, Manual Test Case Design, Registration & Login workflows | 5-09-2025 | 6-09-2025 |
| Sprint 2 | Category navigation + Product flows | 6-09-2025 | 7-09-2025 |
| Sprint 3 | Shopping Cart, Checkout + Regression testing, Reporting & Closure | 7-09-2025 | 8-09-2025 |

**2.5 Test Scenarios**

|  |  |
| --- | --- |
| Scenario ID | Test Scenario |
| TS01 | Register with valid and invalid data |
| TS02 | Login with empty, invalid, and valid credentials |
| TS03 | Verify navigation to all main categories and subcategories |
| TS04 | Browse products and validate sorting/filtering |
| TS05 | Configure a desktop product and add to cart |
| TS06 | Hover on shopping cart and validate product details |
| TS07 | Remove/update products in cart |

**3. Test Deliverables**

* Manual & automated **test cases**.
* Test data sets.
* Execution reports (ExtentReports).
* Defect logs (Jira).
* Final test summary report.

**4. Test Types**

|  |  |
| --- | --- |
| Type | Description |
| Smoke | Validate site accessibility and core flows. |
| Functional | Validate registration, login, navigation, cart. |
| UI/UX | Layout, responsiveness, and error message checks. |
| Regression | Automated suite for core workflows. |
| Security | Validate secure login and session handling. |
| Integration | Verify consistency between categories, products, and cart. |

**5. Test Data Strategy**

* **Static data** for edge cases (empty fields, invalid emails).
* **Dynamic data** for unique registrations.
* **Product test data** from demo catalog (e.g., desktops, notebooks).
* **Negative test data** (invalid credentials, invalid product config).

**6. Resource & Environment Needs**

**6.1 Testing Tools**

|  |  |
| --- | --- |
| Tool | Purpose |
| Selenium + TestNG | UI automation |
| Jira | Defect tracking |
| ExtentReports | Execution reporting |
| Eclipse | Test development |

**6.2 Test Environment**

|  |  |
| --- | --- |
| Category | Specification |
| Hardware | i5+, 8GB RAM (16GB recommended), 256GB SSD, stable internet |
| OS | Windows 10/11, macOS Ventura |
| Browsers | Chrome |
| Data | Demo users, products |
| CI/CD | Jenkins / GitHub Actions (optional) |

**7. Entry & Exit Criteria**

**7.1 Entry Criteria**

* Demo site is accessible.
* Test data prepared (users, products).
* Automation framework set up.

**7.2 Exit Criteria**

* All **critical test cases** passed.
* No **blocker/high-severity defects** remain.
* Final test report approved.

**8. Risks & Mitigation**

|  |  |
| --- | --- |
| Risk | Mitigation |
| Dynamic UI elements | Use robust locators + wait strategies |
| Flaky test execution | Retry logic, thread-local WebDriver |
| Limited demo site coverage | Supplement with exploratory flows |
| Data resets on demo site | Use fresh dynamic data during tests |

**9. Success Metrics**

|  |  |  |
| --- | --- | --- |
| Metric | Target | Purpose |
| Registration Workflow Pass % | ≥ 98% | Ensure smooth onboarding |
| Login Validation Accuracy | 100% | Secure customer sessions |
| Category Navigation Success | ≥ 95% | Verify all modules accessible |
| Add-to-Cart Success Rate | ≥ 98% | Confirm products are configurable and addable |
| Regression Stability Index | ≥ 95% | Maintain reliability of automation |

**10. Terms/Acronyms**

| **TERM/ACRONYM** | **DEFINITION** |
| --- | --- |
| API | Application Program Interface |
| AUT | Application Under Test |
| QA | Quality Assurance |
| UAT | User Acceptance Testing |
| JIRA | A tool for issue and bug tracking |
| CI | Continuous Integration |
| UI | User Interface |
| RAM | Random Access Memory |
| IDE | Integrated Development Environment |
| Selenium | Tool for automating web browser testing |
| Jenkins | CI/CD automation server |
| TestNG | Frameworks for Java test automation |