**Test Plan for nopCommerce Shopping cart and checkout module**

**Application URL:** https://demo.nopcommerce.com/

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**1. Test Plan Identifier**

TP-nopCommerce-cart-checkout-2025-v1

**2. Introduction**

This plan covers the end-to-end shopping experience, from adding items to the cart, managing the cart, and completing the checkout process. This is a critical revenue-generating flow and must be tested thoroughly for functionality and data accuracy.

**3. Test Items**

Add product to shopping cart.

Add product to wishlist

Update product quantity in cart.

Remove product from cart.

Estimate shipping functionality.

Apply discount coupon / gift card.

Checkout process: Billing address, shipping method, payment method, order confirmation.

Persistence of cart for logged-in users.

**4. Features to be Tested**

Cart Actions:

Adding a single product and multiple products to the cart.

Verifying item details (name, price, quantity, total) in the cart.

Increasing, decreasing, and manually updating item quantity.

Removing an item from the cart.

Clicking "Add to wishlist" from product page and cart.

Checkout Process:

Proceeding to checkout as a guest user.

Proceeding to checkout as a registered user

Selecting existing billing/shipping address vs. entering a new one.

Selecting different shipping methods (e.g., Ground, Next Day) and verifying cost updates.

Applying a valid and invalid discount code.

Completing checkout with different payment methods (e.g., Check / Money Order, Credit Card).

Verifying the order confirmation details and order number generation.

**5. Features Not to be Tested**

Actual processing of real credit card payments. The demo site uses simulated payment data.

Actual physical shipment of products.

**6. Approach**

Manual Testing: Initial exploratory testing and validation of all scenarios.

Automation Testing (Primary): All test scenarios will be automated using the defined tech stack.

Framework: Selenium WebDriver with Java.

Pattern: Page Object Model (POM) for maintainability.

BDD: Scenarios will be written in Gherkin in .feature files.

Execution: Tests will be grouped (e.g., @login, @regression) and executed using TestNG, capable of parallel runs.

Data-Driven Testing: Test data will be externalized using @CucumberOptions or Excel/JSON files.

Cross-Browser Testing: Automated tests will be run on Chrome, Firefox, and Edge browsers.

Reporting: Extent Reports will be generated after each execution cycle for analysis.

**7. Item Pass/Fail Criteria**

Pass: The actual result of the test case matches the expected result defined in the Gherkin scenario.

Fail: The actual result deviates from the expected result, the test script throws an unhandled exception, or a defect is found.

**8. Suspension Criteria and Resumption Requirements**

Suspension: Testing will be suspended if the nopCommerce demo environment is unavailable for more than 2 hours or if a critical bug in the build blocks the execution of over 70% of the test cases.

Resumption: Testing will resume once the environment is stable again or a new build with the critical fix is deployed.

**9. Test Deliverables**

This Test Plan document.

Manual Test Cases (in JIRA/Excel).

Automated Test Assets:

Cucumber Feature Files (e.g., login.feature, registration.feature).

Step Definition classes.

Page Object classes (e.g., LoginPage.java, RegistrationPage.java).

TestNG XML configuration files.

Test Execution Results and Extent Reports.

Defect Reports logged in JIRA.

**10. Environmental Needs**

Application: nopCommerce Demo Website (https://demo.nopcommerce.com/).

Test OS: Windows 10/11.

Browsers: Chrome, Firefox, Edge

Automation Environment:

JDK 17.

Maven 3.8.11

IDE: Eclipse.

Selenium WebDriver & Browser Drivers.

Version Control: GitHub repository.

Project Management: JIRA for task and defect tracking.

**11. Responsibilities**

Product Owner (PO): Prioritize which authentication features to test first. Sign off on requirements.

Scrum Master (SM): Facilitate daily stand-ups, remove blockers in environment setup or test data creation.

Developers: Implement the automation scripts, page objects, and framework utilities. Integrate with Extent Reports.

Testers: Design manual test cases, verify automation results, and log detailed defects in JIRA.

**12. Schedule (Sample 2-Week Sprint)**

**Activity Timeline**

Test Planning & Case Design Day 1-2

Automation Script Development Day 5-7

Test Execution & Bug Logging Day 8-9

Retest & Cross-Browser Execution Day 11-12

**13. Risks and Contingencies**

No Risks

**14. Approvals**

Test Lead: John Doe

Product Owner: John Doe