Test Plan Document

Project: NopCommerce Full STLC (manual + automation)

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Modules: Homepage, Register Page, Login Page, Wishlist Page, Cart Page

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1. Introduction

The purpose of this Test Plan is to define the strategy, scope, objectives, resources, schedule, and approach for testing the **Homepage, Login Page, Register Page, Wishlist Page, Cart Page Module** of the NopCommerce application. This ensures that the functionality works as expected and meets business requirements before release.

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2. Objectives

- Validate all core functionalities of the selected nopCommerce modules (Home, Login, Register, Wishlist, Cart).
- Identify functional, UI, workflow, and usability defects.
- Verify system behavior for negative inputs and boundary conditions.
- Ensure complete requirement coverage through scenarios and test cases.
- Build and maintain a reliable regression automation suite.
- Focus on high-risk features to ensure stable product behavior.
- Confirm consistent behavior across the supported browser and environment.
- Provide clear, structured, and actionable test reports for stakeholders.
- Validate non-functional aspects such as performance, usability, and security.

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3. Scope of Testing

3.1 In Scope:

The following modules and functionalities are included in the scope of testing:

- Home Page
- Login Page
- Register Page
- Wishlist Page
- Cart Page
- Basic UI validation for selected pages
- Functional, Negative, Boundary and Regression testing for the above modules

3.2 Out of Scope:

The following areas and functionalities are excluded from testing in this phase:

- nopCommerce Admin Panel
- Payment Gateway and Checkout process
- API Testing (REST/SOAP services)
- Mobile or Responsive Testing
- Cross-browser testing (only Chrome supported)
- Performance/Load testing
- Database-level validation (no direct DB checks)

4. Testing Approach

- **4.1 Manual Testing Approach**
- Perform **Functional Testing** to verify all features behave as expected according to SRS.
- Conduct **Negative Testing** to validate system behavior against invalid, unexpected, and edge-case inputs.
- Perform **Validation Testing** to ensure all field-level and form-level validations work correctly.
- Carry out **Usability Testing** to check layout, navigation flow, readability, and overall user experience.
- Execute **Regression Testing** after fixes or updates to ensure that existing functionalities remain stable.
- Document defects with proper steps, expected/actual results, and attach screenshots where needed.

- **4.2 Automation Testing Approach**
- Build automation scripts using **Selenium WebDriver + TestNG + POM (Page Object Model)** to ensure maintainability and scalability.
- Follow a **modular, page-wise automation structure** where each page has separate classes and methods.
- Implement **Data-Driven Testing** using TestNG DataProviders or external data sources to test multiple input combinations.
- Integrate **Extent Reports / Allure Reports** to generate detailed, interactive test reports.

- Maintain scripts in a **GitHub repository**, ensuring version control and easy collaboration.
- Automate only **stable and repetitive test cases**, focusing on regression and critical-path scenarios.

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5. Test Deliverables

- SRS Document
- Test Plan
- Test Scenarios
- Test Cases
- Test Data
- Bug Report
- Test Execution Report
- Test Summary Report
- Automation Suite

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6. Entry Criteria

- Requirements are finalized
- Test environment is ready
- Test data is available
- Application build is stable

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7. Exit Criteria

- All high and medium priority test cases executed
- No open critical bugs
- Test summary report prepared

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8. Risks & Mitigation

- Application downtime → Inform dev team
- Unstable build → Delay execution
- Environment issues → Retry or switch browser/system

9. Tools Used

Manual Testing

- Ms Word
- Ms Excel

Automation Testing

- Selenium WebDriver
- TestNG
- Java
- Maven
- POM
- Allure/Extent Report

10. Roles & Responsibilities

- **QA Tester:** Manual Testing, Documentation, Test Case Design
- **Automation Engineer:** Script development, Framework maintenance
- **Reviewer:** Self-review in this project

11. Test Environment

- Browser: Chrome Latest Version
- OS: Windows 10/11
- AUT: nopCommerce Public Test Environment