**Business Requirement Document (BRD)**

**Project Name:** NopCommerce Website Automation Testing  
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**Date:** 8th Sept 2025

**1. Introduction**

The purpose of this project is to test the core functionalities of the **NopCommerce demo e-commerce website** through manual and automated testing. This will ensure that key flows such as **registration, login, product search, wishlist, shopping cart, and checkout** work correctly and consistently.

**2. Business Objectives**

* Validate that major feature of the website work as expected.
* Ensure customers can **register, log in, search, and purchase products** without issues.
* Reduce manual effort by introducing automation for repetitive test cases.
* Improve overall **quality, accuracy, and speed** of testing cycles.
* Provide **quick feedback** to the development team whenever defects are found.

**3. Scope**

**In Scope:**

* Registration and Login
* Logout functionality
* Adding desktops, jewelry, and mobiles to the cart
* Adding products to wishlist
* Comparing books
* Searching for products (Adidas, Nike)
* Cart and Wishlist navigation
* Checkout (basic flow)

**Out of Scope:**

* Performance, load, or stress testing
* Security or penetration testing
* Mobile application testing
* API-level testing beyond UI flows
* Cross-browser testing (limited to Chrome only)

**4. Stakeholders**

| **Role** | **Name/Team** | **Responsibility** |
| --- | --- | --- |
| Product Owner | Client / Project Lead | Define requirements, prioritization |
| QA Team | Test Engineers | Design & execute test cases, log defects |
| Automation Team | Selenium + TestNG Team | Develop automation scripts |
| Development Team | NopCommerce Dev Team | Implement and fix issues |
| Project Manager | QA/Training Manager | Manage timeline, deliverables |

**5. Business Requirements**

| **Requirement ID** | **Description** | **Priority** |
| --- | --- | --- |
| BR-01 | The system must allow new users to register with valid details. | High |
| BR-02 | The system must allow registered users to log in securely. | High |
| BR-03 | The system must prevent login with invalid or empty credentials. | High |
| BR-04 | The system must allow users to navigate to Desktops and add products to cart. | High |
| BR-05 | The system must allow users to add iPhone and Nike products to Wishlist. | High |
| BR-06 | The system must allow users to compare two books and clear the comparison list. | Medium |
| BR-07 | The system must allow users to set product quantity before adding to cart. | Medium |
| BR-08 | The system must allow navigation to Wishlist and Shopping Cart pages. | High |
| BR-09 | The system must support a basic checkout flow. | High |

**6. Functional Requirements**

| **FR ID** | **Functional Requirement Description** | **Priority** |
| --- | --- | --- |
| FR-1.1 | Provide a registration form with required fields (name, email, pwd). | High |
| FR-1.2 | Validate inputs and create new account after registration. | High |
| FR-2.1 | Display error messages for invalid/empty login credentials. | High |
| FR-2.2 | Login with valid credentials should redirect to account page. | High |
| FR-3.1 | Allow navigation to Computers → Desktops page. | High |
| FR-3.2 | Enable selecting product configurations (RAM, HDD) before adding. | Medium |
| FR-4.1 | Allow adding iPhone product to Wishlist. | High |
| FR-4.2 | Allow adding Nike SB Zoom shoes to Wishlist. | High |
| FR-5.1 | Allow comparing books (e.g., Fahrenheit 451, First Prize Pies). | Medium |
| FR-6.1 | Allow updating product quantity in cart. | Medium |
| FR-7.1 | Display Wishlist and Shopping Cart pages with items. | High |
| FR-8.1 | Provide basic checkout flow including address validation. | High |

**7. Non-Functional Requirements**

| **NFR ID** | **Description** | **Priority** |
| --- | --- | --- |
| NFR-01 | Website pages must load within 3 seconds. | High |
| NFR-02 | Test execution environment limited to Chrome (latest version). | Medium |
| NFR-03 | Test framework should generate HTML/PDF reports. | High |
| NFR-04 | Website uptime should be 99.9% during testing. | Medium |
| NFR-05 | Automation scripts should be reusable for regression testing. | High |

**8. Assumptions**

* The demo site remains available during the project.
* Valid credentials are available for login testing.
* Test data (emails, product IDs) will be created or provided.
* Execution environment is **Windows OS with Chrome browser**.

**9. Constraints**

* Testing limited to functional validation only.
* No mobile, cross-browser, or API testing in scope.
* Execution dependent on internet availability.

**10. Deliverables**

* Business Requirement Document (BRD)
* Test Plan & Test Scenarios
* Test Cases (manual + automated)
* Selenium + TestNG Automation Scripts
* Test Reports (HTML, Excel, PDF)
* Final Project Summary

**11. Timeline**

| **Phase** | **Duration** |
| --- | --- |
| BRD Preparation | 1 day |
| Test Plan & Case Design | 2 days |
| Script Development | 4–5 days |
| Test Execution | 2 days |
| Reporting & Sign-off | 1 day |