SRS Ecommerce

Software Requirement Specification (SRS)

Project Name: NopCommerce e-Commerce Platform
Application URL: https://demo.nopcommerce.com/
Version: 2.5 (Detailed Draft)
Date: January 8, 2026
Author: QA Lead

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1. Introduction

1.1 Purpose

The purpose of this Software Requirement Specification (SRS) is to document the detailed requirements for the public-facing **NopCommerce Demo Store**. This document serves as the primary reference for the QA team to design test cases and validte that the application meets standard e-commerce functionality.

1.2 Scope

The scope of the NopCommerce Manual Testing Project covers the **Customer Front-End (Storefront)**.
In-Scope:
- User Registration and Login processes.
- Product interactions (Search, View, Compare).
- Cart management and Checkout flows (Guest & Registered).
- My Account management.

Out-of-Scope:
- Backend Administration (Catalog management, Order processing).
- Server-side performance tuning.
- Payment Gateway API integrations (Sandbox testing only).

1.3 Definitions & Acronyms

- **SRS**: Software Requirement Specification.
- **SKU**: Stock Keeping Unit.
- **Guest User**: A user who attempts to purchase without an account.
- **PDP**: Product Detail Page.

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2. Overall Description

2.1 Product Perspective

NopCommerce is a universal e-commerce platform. This specific instance is the public evaluation demo, representing a fully functional store selling Electronics, Computers, and Apparel.

2.2 User Characteristics

- **Guest Visitor**: No login required. Can browse, search, and add to cart.
- **Registered Customer**: Logged in. Has access to Wishlist, Order History, and Reward Points.
- **Administrator**: Full access (Not covered in this SRS).

2.3 General Constraints

- The demo database is reset periodically; strict data persistence is not guaranteed.
- Third-party integrations (Shipping/Payment) are in "Test Mode".

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3. System Features & Functional Requirements

3.1 Registration & Authentication

This module handles user onboarding and access control.
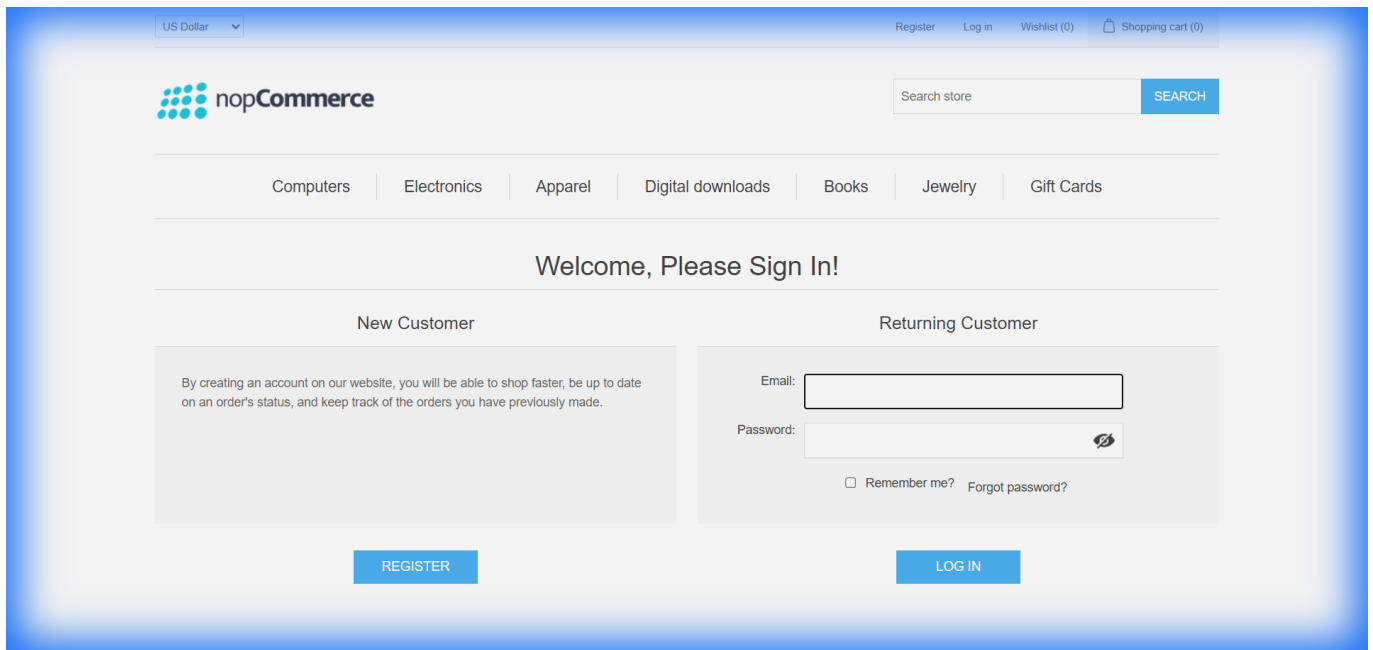
UI Reference:

Figure: Login Page

- **REQ-AUTH-01**: The system shall allow new users to register via the "Register" link.
- **REQ-AUTH-02**: The Registration form must validate mandatory fields: First Name, Last Name, Email, Password, Confirm Password.
- **REQ-AUTH-03**: Passwords must be at least 6 characters long.
- **REQ-AUTH-04**: The system must reject duplicate email addresses during registration.
- **REQ-AUTH-05**: Upon successful registration, the user should be redirected to the "Registration Result" page with a success message.
- **REQ-AUTH-06**: "Forgot Password" functionality should trigger an email recovery mechanism.
- **REQ-AUTH-07**: Users must be able to log out from any page.

3.2 Home Page & Navigation

The entry point of the application.

UI Reference:
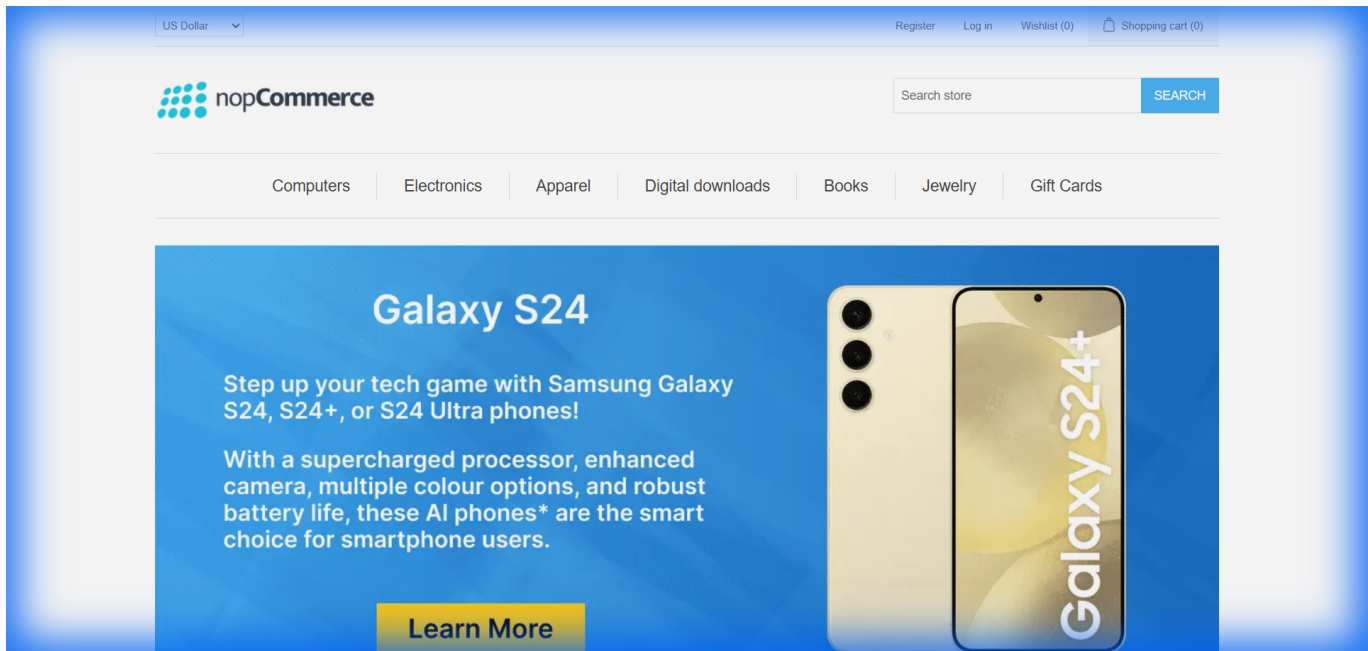
NopCommerce Manual Testing Project

Figure: Home Page

- **REQ-HOME-01**: The specific "Topic" banner must rotate every 5 seconds.
- **REQ-HOME-02**: The Main Menu must include: Computers, Electronics, Apparel, Digital Downloads, Books, Jewelry, Gift Cards.
- **REQ-HOME-03**: The "Featured Products" grid must display at least 4 items with Price and "Add to Cart" buttons.
- **REQ-HOME-04**: The Footer must contain links to Sitemap, Shipping & Returns, Privacy Notice, and Conditions of Use.
- **REQ-HOME-05**: Clicking the Logo in the header must always redirect to the Homepage.

3.3 Product Catalog & Search

Mechanisms for users to find products.

UI Reference:
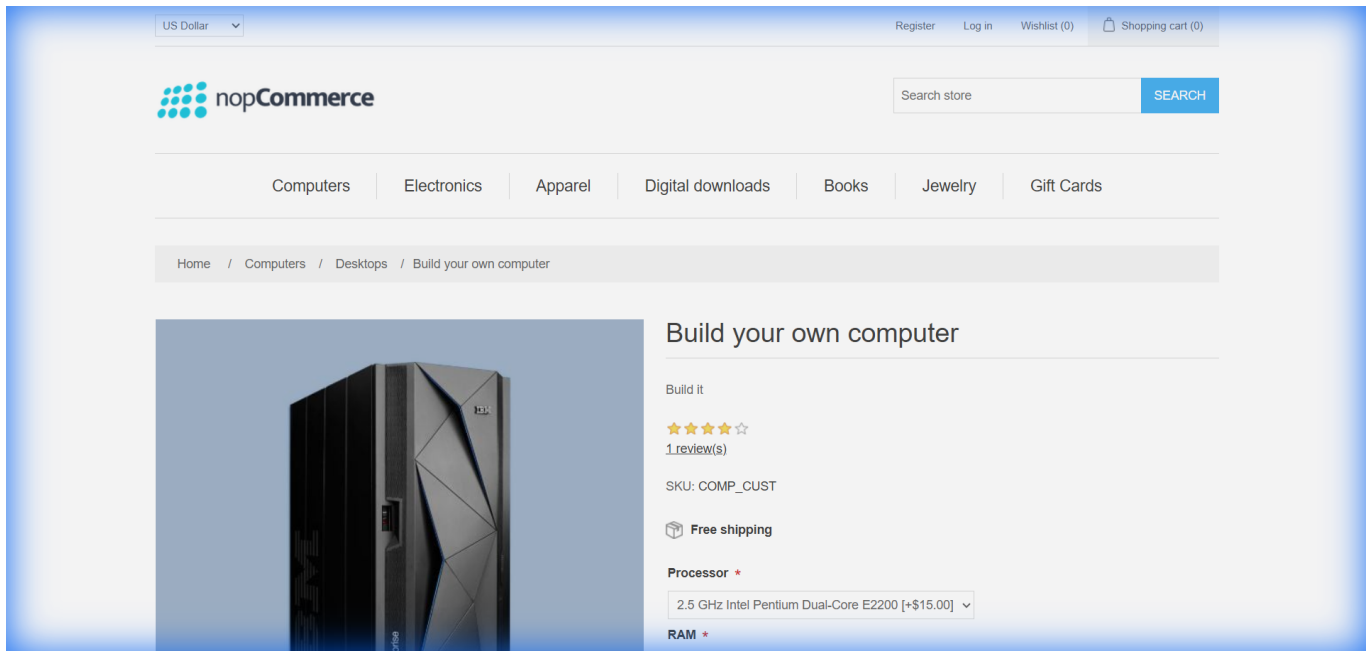
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Figure: Product Page

- **REQ-SRCH-01**: The Search Bar must be available globally in the header.
- **REQ-SRCH-02**: Entering 3+ characters should require auto-suggestion dropdown.
- **REQ-SRCH-03**: The Search Result page must allow sorting by: Price (Low-High), Price (High-Low), Name (A-Z).
- **REQ-PROD-01**: The Product Details Page (PDP) must display: Product Name, Short Description, SKU, Price, Stock Availability, and Quantity Input.
- **REQ-PROD-02**: If a product has attributes (e.g., Size, Color, HDD), the user must select them before adding to the cart.
- **REQ-PROD-03**: The "Add to Wishlist" button must function for both Guest and Registered users.

3.4 Shopping Cart & Wishlist

Managing selected items before purchase.

UI Reference:
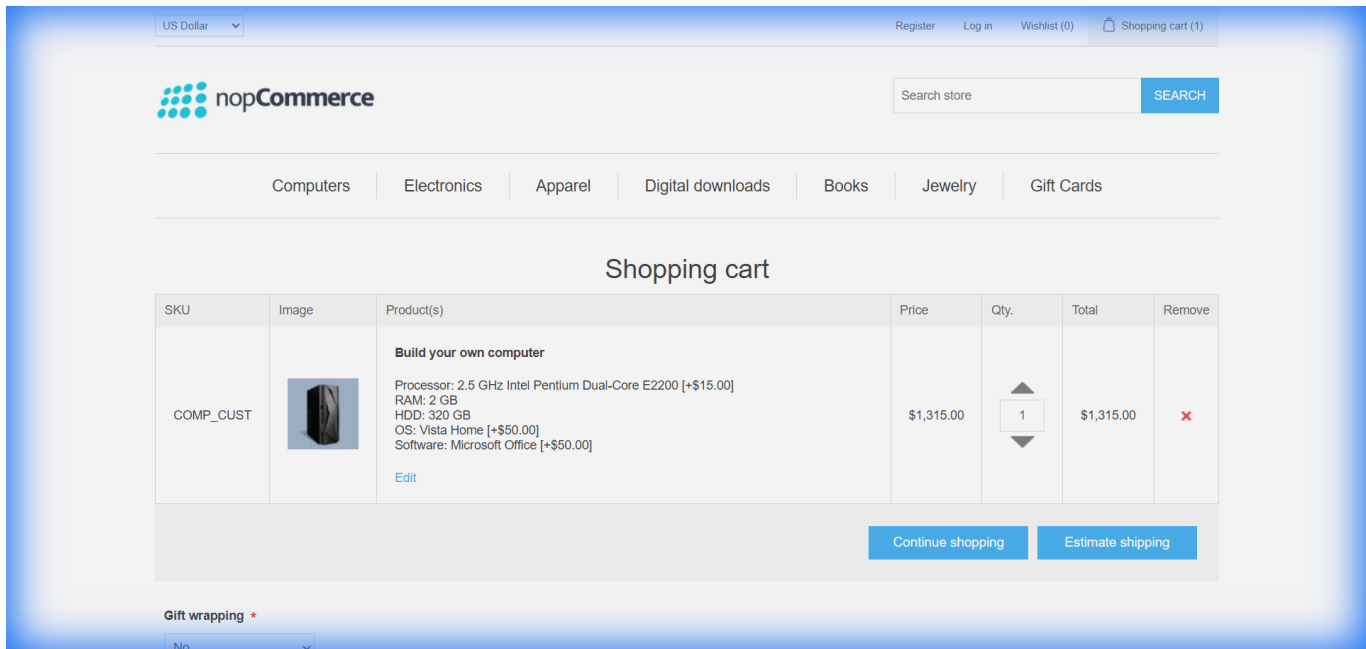
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Figure: Cart Page

- **REQ-CART-01**: The Shopping Cart page must list all added items with: Image, Name, Price, Quantity, Total.
- **REQ-CART-02**: Users must be able to update quantity (inputs refresh totals).
- **REQ-CART-03**: Users must be able to remove items via the "Remove" checkbox/icon.
- **REQ-CART-04**: The "Estimate Shipping" widget must accept Country, State, and Zip to calculate shipping costs.
- **REQ-CART-05**: A "Terms of Service" checkbox must be checked before proceeding to Checkout.

3.5 Checkout Process

The payment and finalization flow.

UI Reference:

NopCommerce Manual Testing Project

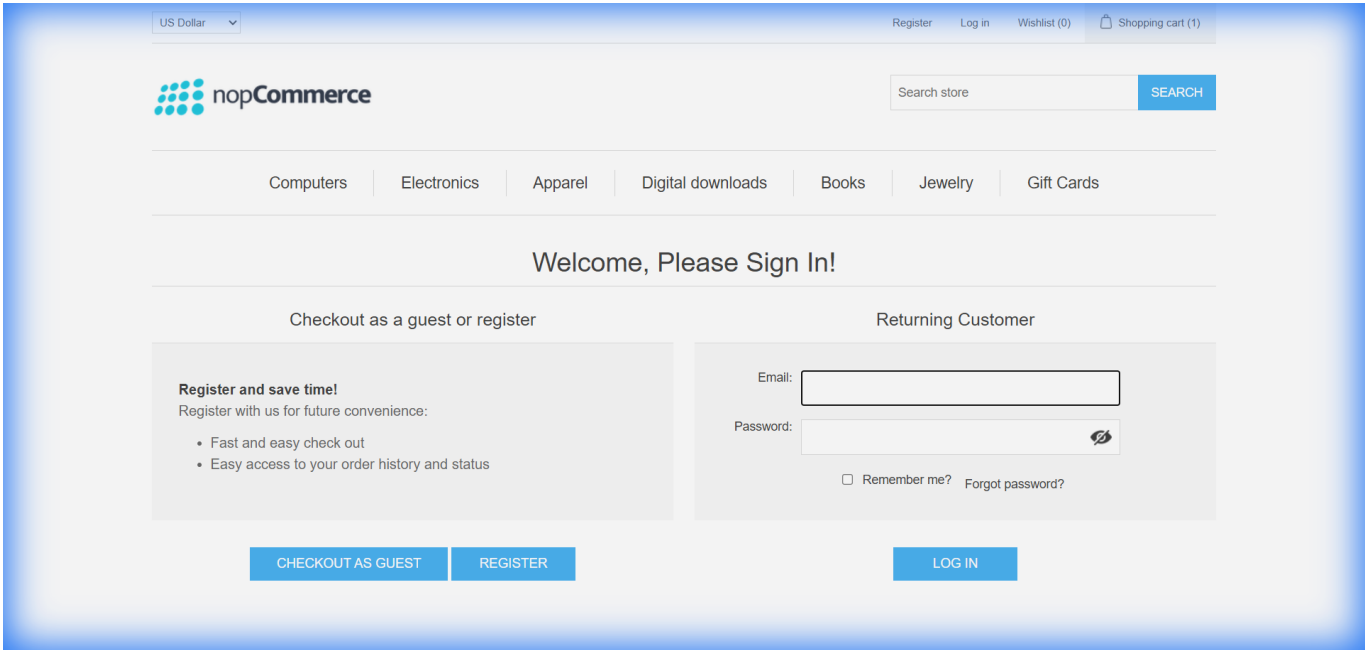*Generated on: January 08, 2026 | Author: QA Automation Lead*

Figure: Checkout Page

- **REQ-CHK-01**: The Checkout process must reinforce the "One Page Checkout" model.
- **REQ-CHK-02**: Step 1 (Billing Address): Pre-filled for registered users; editable form for new addresses.
- **REQ-CHK-03**: Step 3 (Shipping Method): Must display options like "Ground ($0.00)", "Next Day Air ($10.00)".
- **REQ-CHK-04**: Step 4 (Payment Method): Must support "Check / Money Order" and "Credit Card".
- **REQ-CHK-05**: Step 5 (Payment Info): If Credit Card is selected, fields for Cardholder Name, Number, Exp Date, and CVV are required.
- **REQ-CHK-06**: Step 6 (Confirm Order): Must display a final summary of products, shipping costs, tax, and total.
- **REQ-CHK-07**: Upon confirmation, the system must generate a unique Order ID.

4. System Flow & Use Cases

4.1 Use Case: Guest Checkout Purchase

Field	Description
Actor	Guest User
Preconditions	User is not logged in; Cart is empty.
Trigger	User finds a product and clicks "Add to Cart".

Main Flow	1. User navigates to PDP. \ 2. Selects attributes (if any). \ 3
Post-conditions	Order is created; Cart is cleared; Order Confirmation email sent.

4.2 Use Case: Product Comparison

Field	Description
Actor	Any User
Main Flow	1. User views search results. \ 2. Clicks "Add to compare list" o

5. Field Specifications

5.1 Registration Form Specs

Field Name	Type	Size	Mandatory	Validation Rules
First Name	Text	50	Yes	Alphabetic only.
Last Name	Text	50	Yes	Alphabetic only.
Email	Email	100	Yes	Must contain '@' and '.' domain
Password	Password	20	Yes	Min 6 chars.
Newsletter	Checkbox	N/A	No	Default: Checked.

5.2 Address Form Specs (Checkout)

Field Name	Type	Size	Mandatory	Validation Rules
Country	Dropdown	-	Yes	Selection required.
State	Dropdown	-	No	Populates based on Country.
City	Text	50	Yes	Alphanumeric.
Address 1	Text	100	Yes	Alphanumeric.
Zip	Text	20	Yes	Numeric/Hyphen allowed.

Phone	Text	20	Yes	Numeric only.

6. Non-Functional Requirements

1. **Performance**: Pages should load in < 3 seconds on 4G networks.
2. **Compatibility**: Site must function correctly on Chrome (latest), Firefox, and Safari on iOS.
3. **Security**: User passwords must be hashed in the database. No plain text storage.
4. **Localization**: The site must support US Dollar ($) and Euro (EUR) currency toggling.
5. **Availability**: 99.9% uptime during business hours.

7. Appendices

- **A: Integration Points**: List of all external APIs (PayPal, UPS, Google Analytics).
- **B: Error Messages**: Standard list of input validation errors.

(End of SRS Document)