**Business Requirements Document (BRD)**

**Demo nopCommerce**

**1. Executive Summary**

**Purpose:** The nopCommerce demo site provides a fully featured B2C e-commerce storefront with typical user functions: product catalog, shopping cart, account management, etc. The site’s home page and category pages organize products into logical groups e.g. the **Computers** category shows sub-categories **Desktops, Notebooks, Software**, and products like “Build your own computer” are listed with prices and Add-to-Cart buttons. This BRD focuses on user-facing features of that storefront: user registration and login, category navigation, product detail and shopping cart behaviours.

* nopCommerce is a free, open-source eCommerce platform.
* The public storefront allows customers to browse products, register, log in, add items to cart, and complete orders.

**2. Business Objectives**

* Provide a seamless shopping experience to customers across product categories.
* Ensure secure and smooth customer registration and login workflows.
* Enable easy product search, filtering, and navigation across categories/subcategories.
* Support configurable products with different specifications before adding to cart.
* Deliver a reliable cart and checkout process for customers.

**3. Stakeholders**

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| --- | --- | --- |
| **Role** | **Name/Team** | **Responsibility** |
| Product Owner | nopCommerce Product Team | Define features & priorities |
| Development Team | Engineering Team | Implement site modules & UI/UX |
| QA Team | Testing & QA Team | Functional, automation, and regression testing |
| UX Designer | Design Team | Customer journey & storefront usability |

**4. Functional Requirements**

**4.1 Registration & Login**

* User registration with mandatory field validation (First name, Last name, Email, Password).
* Error handling for empty and invalid inputs.
* User login with valid/invalid credentials validation.
* "Remember me" option for persistent login sessions.

**4.2 Category & Subcategory Navigation**

* Display main categories (e.g., Computers, Electronics, Apparel).
* Subcategories (e.g., Desktops, Notebooks, Accessories) accessible via hover menus.
* Validate presence and navigation of all submodules.

**4.3 Product Browsing & Selection**

* Product listing with sorting and filtering options.
* Ability to view product details.
* Support configurable products (e.g., desktop specifications: RAM, HDD, OS).
* Add products to shopping cart.

**4.4 Shopping Cart Management**

* Hover over cart icon to preview items.
* View cart page with product details, quantity, price, and subtotal.
* Update/remove products from cart.
* Validate product specifications and pricing after addition.

**4.5 General User Experience**

* Responsive design for desktop and mobile.
* Consistent navigation across pages.
* Clear error messages for invalid workflows.

**5. Non-Functional Requirements**

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| --- | --- |
| **Category** | **Requirement** |
| Performance | Fast load times (< 2s for pages). |
| Scalability | Support 1000+ concurrent storefront users. |
| Security | HTTPS encryption, password hashing, secure login. |
| Availability | 99.9% uptime with redundancy and failover. |
| Usability | Intuitive and responsive UI. |

**6. Integrations**

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| --- | --- |
| **System/API** | **Purpose** |
| Payment Gateway APIs | Secure checkout via PayPal, Amazon Pay, etc. |
| Shipping Provider APIs | Provide real-time shipping rates & tracking (e.g., UPS). |
| Tax Calculation APIs | Auto-calculate taxes based on location. |

**7. Validation Benchmarks**

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| **Metric** | **Target** | **Purpose** |
| Registration Workflow Success | ≥ 98% | Ensure customers can register reliably |
| Login Validation Accuracy | 100% | Prevent unauthorized access |
| Category Navigation Accuracy | ≥ 95% | Verify all submodules/pages are accessible |
| Add-to-Cart Success Rate | ≥ 98% | Ensure products are configurable & addable |
| UI Automation Coverage | ≥ 90% | Validate critical UI workflows |

**8. Terms/Acronyms**

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| --- | --- |
| **TERM/ACRONYM** | **DEFINITION** |
| QA | Quality Assurance |
| UX | User Experience |
| UAT | User Acceptance Testing |
| UI | User Interface |
| API | Application Programming Interface |
| UPS | United Parcel Service |