### **Business Requirement Document (BRD)**

**Project Name:** E-Commerce Website Development

**Prepared By:** [Your Name/Team]

**Date:** [Date]

**Version:** 1.0

#### **1. Executive Summary**

The objective of this project is to develop a user-friendly and feature-rich e-commerce website for [Client/Business Name]. The website aims to serve as a platform where customers can browse, purchase, and manage orders of various products. It will cater to both retail and wholesale customers, providing a seamless experience across devices.

#### **2. Business Objectives**

1. Enable online sales to increase customer reach and revenue.
2. Enhance the customer shopping experience with an intuitive UI/UX.
3. Integrate secure payment and shipping options.
4. Provide a scalable platform to accommodate future growth and features.
5. Collect customer data for analytics and targeted marketing.

#### **3. Scope of the Project**

**In-Scope:**

* Development of an e-commerce website.
* User authentication and role-based access.
* Integration with payment gateways.
* Shopping cart and order management.
* Product catalog and inventory management.
* Analytics and reporting dashboards.

**Out-of-Scope:**

* Mobile application development (for now).
* Third-party logistics integration beyond basic shipping.

#### **4. Functional Requirements**

##### **4.1. User Roles**

1. **Admin:**
   1. Manage products, categories, inventory, and orders.
   2. View sales reports and customer analytics.
   3. Assign roles and permissions.
2. **Registered Customers:**
   1. Create and manage personal accounts.
   2. Browse and purchase products.
   3. View order history and track orders.
3. **Guest Users:**
   1. Browse products without registration.
   2. Add items to the cart (with session-based tracking).

##### **4.2. Core Features**

1. **Homepage:**
   1. Display featured products and offers.
   2. Provide quick navigation links to categories and sales.
2. **Product Catalog:**
   1. Categories and subcategories for easy browsing.
   2. Product filtering by price, rating, brand, etc.
   3. Product details with high-quality images and descriptions.
3. **Search Functionality:**
   1. Keyword-based search with auto-suggestions.
   2. Advanced search with filters.
4. **User Registration and Login:**
   1. Email and password-based registration.
   2. Social media login (e.g., Google, Facebook).
5. **Shopping Cart:**
   1. Add/remove items.
   2. Save items for later.
   3. Display subtotal and taxes dynamically.
6. **Checkout Process:**
   1. Multi-step checkout (billing, shipping, payment).
   2. Support for multiple shipping addresses.
7. **Payment Integration:**
   1. Credit/debit card payment (via payment gateway).
   2. Digital wallets (e.g., PayPal, Apple Pay).
   3. Cash on delivery (if applicable).
8. **Order Management:**
   1. Real-time order status updates.
   2. Email and SMS notifications for orders.
9. **Customer Support:**
   1. FAQ section.
   2. Chatbot or live chat for support.

##### **4.3. Admin Features**

1. Product Management:
   1. Add, edit, and delete products and categories.
   2. Upload bulk products via CSV.
2. Inventory Management:
   1. Track stock levels.
   2. Set low-stock alerts.
3. Order Management:
   1. View, edit, and update order status.
4. Promotions:
   1. Create and manage discount codes and offers.
5. Analytics Dashboard:
   1. Display sales trends, customer behavior, and product performance.

#### **5. Non-Functional Requirements**

1. **Performance:**
   1. The website should load within 2 seconds for 90% of users.
2. **Scalability:**
   1. Support up to 100,000 concurrent users.
3. **Security:**
   1. Data encryption using HTTPS/SSL.
   2. Comply with GDPR and PCI-DSS standards.
4. **Compatibility:**
   1. Cross-browser support (Chrome, Safari, Edge, Firefox).
   2. Responsive design for desktop, tablet, and mobile devices.

#### **6. Technical Requirements**

1. **Frontend:**
   1. Technology: React.js or Angular.
   2. Responsive design framework: Bootstrap or TailwindCSS.
2. **Backend:**
   1. Technology: Node.js with Express or Django.
   2. Database: PostgreSQL or MongoDB.
3. **APIs:**
   1. RESTful or GraphQL APIs for communication.
4. **Hosting:**
   1. Cloud platform: AWS, Azure, or Google Cloud.
   2. Content Delivery Network (CDN) for static assets.
5. **Integrations:**
   1. Payment gateways: Stripe, PayPal.
   2. Shipping services: FedEx, USPS.

#### **7. Assumptions and Constraints**

1. Users will have internet access to use the website.
2. The initial launch will target English-speaking regions.
3. Budget limitations may restrict advanced features initially.

#### **8. Risk Management**

1. **Risks:**
   1. Delayed development due to scope creep.
   2. Security vulnerabilities in payment processing.
2. **Mitigation Strategies:**
   1. Regular sprint reviews to prevent scope creep.
   2. Perform regular security audits.

#### **9. Timeline and Milestones**

|  |  |
| --- | --- |
| **Milestone** | **Expected Completion Date** |
| Requirements Gathering | Week 2 |
| Design Finalization | Week 4 |
| Development | Week 12 |
| Testing and QA | Week 14 |
| Launch | Week 16 |

#### **10. Budget**

The estimated budget for this project is [$XX,XXX], including development, hosting, and third-party service integrations.

#### **11. Appendices**

1. Glossary of Terms.
2. References to similar projects for benchmarking.

Let me know if you want to customize or expand on any sections!