Functional Requirements Document (FRD)

Project Name: Online Shopping Cart

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# 1. Purpose

The purpose of this FRD is to define the functional requirements for an Online Shopping Cart application that enables users to browse, select, and purchase products. It also allows vendors to manage product listings and administrators to oversee the system.

# 2. Scope of the System

The system provides:  
- Product browsing and shopping cart functionality for customers.  
- Inventory and product management for vendors.  
- Admin control panel for user and vendor management.  
- Web-based and mobile-compatible interface using HTML, CSS, JS, PHP, and MySQL.

# 3. Stakeholders

|  |  |
| --- | --- |
| Role | Responsibility |
| Customers | Browse and buy products |
| Vendors | Manage inventory and product details |
| Admin | Manage users and vendors |
| Developers | Build and maintain the system |
| Project Mentor | Supervise development |

# 4. System Overview

This is a three-tier e-commerce web application:  
- Front-End: HTML, CSS, JavaScript  
- Middle Layer: PHP scripts on Apache Server  
- Back-End: MySQL database

# 5. Functional Requirements

## 5.1 Customer Functions

|  |  |  |
| --- | --- | --- |
| ID | Function | Description |
| C1 | User Registration | Register with the site using personal details |
| C2 | Login | Login to access shopping features |
| C3 | Product View | View products by category/subcategory |
| C4 | Add to Cart | Add selected products to cart |
| C5 | Order Products | Confirm purchase and order items |
| C6 | Cancel Orders | Cancel products added to cart |

## 5.2 Vendor Functions

|  |  |  |
| --- | --- | --- |
| ID | Function | Description |
| V1 | Vendor Registration | Register as a vendor to access inventory system |
| V2 | Login | Login to vendor panel |
| V3 | Add Product | Insert new products into inventory |
| V4 | Update Product | Update details of existing products |
| V5 | Delete Product | Remove products from inventory |
| V6 | Update Profile | Change vendor credentials/details |

## 5.3 Admin Functions

|  |  |  |
| --- | --- | --- |
| ID | Function | Description |
| A1 | Admin Login | Login to admin dashboard |
| A2 | Approve Vendors | Accept or reject vendor registration requests |
| A3 | Manage Users | Block, unblock, or delete user accounts |
| A4 | Manage Vendors | Block, unblock, or delete vendor accounts |
| A5 | Update Admin Profile | Change admin credentials or info |

# 6. Business Rules

- Only registered users can add to cart or order.  
- Orders remain in cart after logout until purchased or removed.  
- Vendors must be approved before accessing inventory.  
- Admin is the only entity with access to approve/block users and vendors.

# 7. Assumptions

- Users have access to a compatible browser and stable internet.  
- Database connectivity and server stability are ensured.  
- All actors are authenticated before using secured modules.

# 8. Non-Functional Requirements

- Performance: The system should handle up to 100 concurrent users.  
- Scalability: Modular design for future feature expansion.  
- Availability: 24/7 access with periodic maintenance alerts.  
- Security: Role-based access, password encryption.

# 9. Use Case Diagrams

Use case diagrams to be added separately as visuals from the project.

# 10. Appendix

- Technology Stack: HTML5, CSS3, JavaScript, PHP, MySQL  
- Supported Devices: Web browsers, Android (v5+), iOS (v9+)  
- References: Project synopsis submitted to MAKAUT, Techno India Salt Lake.