

Project Description – Multi-Vendor E-Commerce Platform

The **Multi-Vendor E-commerce Platform** is a full-featured online marketplace that allows multiple sellers to register, list products, and manage their stores, while customers can browse, purchase, and review items through a smooth and secure shopping experience. The system includes user authentication, product management, shopping cart functionality, order processing, and an advanced admin panel.

The platform supports three main user roles: **Admin**, **Seller**, and **Customer**. Sellers can manage their own products and handle orders, customers can shop and track their purchases, and admins have complete control over users, orders, categories, and products. The system uses secure **JWT authentication**, follows role-based authorization, and ensures responsive design across all devices.

Core features include category-based product browsing, search and filtering, a personalized shopping cart, cash-on-delivery checkout, order status tracking, and customer reviews. The admin dashboard provides sales statistics and insights for effective platform monitoring. The backend is designed for scalability and performance, while the database structure follows clear entity relationships to ensure data integrity.

This documentation includes all functional requirements, non-functional requirements, database schema, and relationships necessary to fully understand and develop the platform.