

# Multi-Vendor E-Commerce Website

## Project Overview

This project aims to develop a responsive multi-vendor e-commerce website that allows multiple sellers to display and sell their products on a single platform. Customers can browse products from different vendors, place orders, and make secure payments through the system.

The website will be designed to provide a smooth and user-friendly experience across all devices, including mobile phones and desktop computers. The platform will also include vendor management, order tracking, and basic admin control to ensure efficient operation.

## Key Features

- Responsive and mobile-friendly design for seamless use across all devices.
- Secure user authentication with role-based access for Admin, Vendors, and Customers.
- Multi-vendor product listing system allowing multiple sellers to operate on a single platform.
- Vendor dashboard for managing products, orders, and earnings.
- Location-based vendor and product filtering by city or area.
- Product search, category browsing, and advanced filtering options.
- Shopping cart supporting products from multiple vendors with order splitting.
- Integrated payment system including cash-on-delivery and mobile banking options.
- Order tracking system with real-time status updates for customers and vendors.
- Product review and rating system with vendor trust score calculation.
- Verified vendor and product badge system to ensure authenticity and reliability.
- Live chat feature enabling direct communication between customers and vendors.
- Price comparison feature for identical products from different vendors.
- Admin control panel for vendor approval, commission management, and dispute resolution.
- Analytics and reporting dashboard for monitoring sales, users, and platform performance.

## Technology/Framework

- HTML, CSS (or Styled-Components) for designing and styling the user interface.
- JavaScript for implementing application logic and interactivity.
- React for building a dynamic and responsive user interface.
- Supabase or Firebase for backend services, including database management, user authentication, and real-time data handling.

# **Project Timeline/Plan (10 Weeks)**

## **Week 1–2: Project Planning and Setup (2 Weeks)**

- Research and analyze existing multi-vendor e-commerce platforms.
- Gather UI/UX design inspiration and create initial wireframes using Figma.
- Define system requirements, user roles (Admin, Vendor, Customer), and core features.
- Set up the React project environment and project folder structure.
- Create basic reusable components such as Header, Footer, Authentication, and Layout.
- Configure Supabase/Firebase for authentication, database, and storage.

## **Week 3–5: Core Feature Development (3 Weeks)**

- Implement user authentication and role-based access control.
- Develop vendor dashboard for product management (add, edit, delete products).
- Design and implement product listing, categories, and search functionality.
- Create customer features including product browsing and shopping cart.
- Implement order placement and basic order management functionality.
- Store and retrieve data using Supabase/Firebase database.

## **Week 6–7: Advanced Features and Responsiveness (2 Weeks)**

- Implement location-based vendor and product filtering.
- Add product review and rating system.
- Develop vendor trust score or verification badge feature.
- Apply responsive design principles for all components.
- Test responsiveness across multiple screen sizes and devices.

## **Week 8–9: Admin Panel, Optimization, and Integration (2 Weeks)**

- Develop admin dashboard for vendor approval, product moderation, and commission management.
- Implement order tracking and status updates for customers and vendors.
- Optimize database queries and application performance.
- Improve UI/UX based on testing feedback.
- Secure application using proper authentication and access rules.

## **Week 10: Testing, Finalization, and Deployment (1 Week)**

- Perform comprehensive testing across different browsers and devices.
- Fix bugs and make final refinements.
- Build the production-ready version of the application.
- Deploy the multi-vendor marketplace website.
- Conduct final testing on the live deployed system.