

ENVA - Women's Clothing E-Commerce Platform

PROJECT ABSTRACT

Overview

ENVA is a full-stack e-commerce platform designed for selling women's clothing across multiple categories including Western Wear, Kurtis, Ethnic Wear, Casual Wear, and more. The platform enables customers to browse clothing collections, manage wishlists, place orders, apply coupons, make secure payments, and track deliveries—ensuring a smooth and intuitive shopping experience.

Project Description

ENVA transforms traditional clothing shopping into a fast, seamless, and modern digital experience. Customers can browse curated outfits, add items to their cart, apply coupons, track orders, manage refunds, and securely store their payment and delivery information.

Key Features

1. User Management

- Secure registration & login with JWT
- User profile management
- Multiple saved addresses
- Wishlist support

2. Product Catalog

- Category-based browsing
- Multiple product images
- Size, color, stock tracking

- Inventory management

3. Order Management

- Cart system with multiple products
- Order mapping to clothing items
- Order status workflow
- Delivery ETA and tracking

4. Payment Processing

- Secure payment gateway integration
- Success/failed transaction tracking
- Payment logs stored safely

5. Promotional System

- Coupon validation engine
- Percentage & fixed discounts
- Minimum order logic
- Expiry-based validation

6. Wallet System

- Refunds deposited into wallet
- Credit/debit logs
- Supports cashback

7. Customer Support

- Return & refund requests
- Admin approval system
- Return status workflow

Technology Stack

Backend: Node.js (express)

Database: MongoDB

Driver/ORM: Mongoose

Authentication: JWT

Hosting: Vercel / Render / AWS

Payment Gateway: Razorpay / Stripe

Database Architecture

Total Collections: 13

- Users
- Admin
- Address
- Products
- Category
- Wishlist
- Coupon
- Offer
- Cart
- Orders
- Payment
- Banner
- Wallet

Workflow Overview

Customer Journey

- User registers or logs in
- Browses categories & products

- Adds items to wishlist or cart
- Applies coupons
- Selects address & makes payment
- Tracks order delivery
- Receives product
- Requests return/refund if needed

Admin Workflow

- Adds/updates products
- Manages stock levels
- Creates coupons and offers
- Tracks and updates order statuses
- Reviews return/refund requests
- Monitors payment logs

Security Features

- JWT authentication
- Password hashing
- Payment verification
- Activity logging
- Transaction logging

Core Concepts

Order Status Flow

PENDING → CONFIRMED → PACKED → SHIPPED → OUT_FOR_DELIVERY → DELIVERED

Delivery Tracking

Real-time order tracking with timestamps stored for each delivery stage.

Return & Refund Process

PENDING → ITEM_RECEIVED → INSPECTING → APPROVED → REFUNDED

Promo Code System

Coupon rules include: • Discount type (percentage/fixed) • Minimum order requirement
• Usage limits • Expiry tracking • Max discount limits

Data Storage Specifications

- Indexed fields for fast browsing
- Optimized product queries
- Secure user data
- Encrypted payment logs

Project Goals

- Provide seamless clothing shopping experience
- Fast & secure transactions
- Clear order workflow
- Real-time delivery tracking
- Stable promotional & wallet system
- Full backend reliability

Deployment Ready

- Backend architecture ready
- Database schema finalized
- All relationships are properly defined
- Node.js + MongoDB optimized
- Ready for frontend development

- **Project Type:** Full-Stack E-Commerce Backend
- **Framework:** Django with MongoDb
- **Database Tables:** 11
- **Status:** Schema design complete, ready for development
- **Version:** 1.0 (Final)

This document provides a complete technical overview of the ENVA project structure, features, database design, and core functionalities. The platform is designed to handle women's clothing sales with emphasis on category browsing, order management, delivery tracking, and customer experience.