
RETAIL STORE

Illuminate

DBMS Project

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ABOUT

Project Scope

Our project intends to enforce diverse integral backend functionalities of an online retail store that sells self-care, grooming and makeup products.

The application will comprise a user-friendly interface that allows users to browse and search for products, view product details, and make purchases. Users must create an account to purchase, save their shipping and billing details, and view their order tab.

The application will also incorporate a feature enabling users to view prior orders, create a wishlist, cancel before shipping and manage payment sources, to name a few.

Our application strives to create an architecture that can support numerous user requests simultaneously while providing real-time data synchronisation across the application. The application will manage the accumulation of fresh products by various sellers to the product database, the users looking up the products and placing the order, and, as a final step reserving a courier service that will deliver the products directly from the vendor to the consumer. The system also includes a delivery management module that facilitates tracking orders along with the updation of delivery status as and when that ensues.

Scope:

- User registration and authentication
 - Ability to browse and search for products
 - Provision of detailed information about the products, including images, descriptions, and customer reviews
 - Addition of products to a virtual shopping cart
 - Secure processing of payments
 - Tracking and viewing of order history
 - Provision for leaving reviews for the purchased products
 - Option to save shipping and billing information
 - Push notifications for new releases and special deals.
 - Provision of filters to narrow down the search based on price, brand, and category
 - Option to filter products based on skin type and skin tone
 - Option to filter products based on makeup type and makeup look
 - Option to filter products based on ingredients
 - Option to filter products based on customer reviews
 - Option to filter products based on popularity
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- Sellers can list their products, manage their inventory, and track their sales.
- Option for sellers to respond to customer reviews
- Delivery management module for tracking the orders and updating the delivery status.

Tools to be used

Front-end

1. Framework: React
2. Styling language: CSS and HTML

Back-end:

1. Database Management: MySQL
2. Framework: Django or Fast API or Flask (Undecided)
3. Language: Python

Functional Requirements

- User Account (Login and Signup) - Functionality for a user/customer to create an account (Signup) and Login to access the services and place orders.
 - Product Catalog - Catalog of products that customers can browse. This product catalog is organized by category, brand name, and price. It also includes images of products, short/long descriptions, and prices.
 - Cart- Customers will be able to add items to their cart and view the content of their cart at any time.
 - Order Tracking - Customers will be able to track their orders and will also be able to see the status of their deliveries, and view their order history.
 - Checkout - Customers will be able to review their orders, apply discounts and coupons, and enter shipping details and billing details. They will also be able to select delivery dates and times and choose a payment method.
 - Inventory management - System to keep track of stocks of products to prevent over-selling and ensure timely delivery.
 - Security - System to secure customers' data and transactions from unauthorized access and data breaching.
 - Reviews and Ratings - Customers will be able to leave reviews and ratings for products and services which must be managed by the system properly.
 - Seller Account (Login, Signup and subsequent verification of business and products they are selling).
 - Sellers will update the product inventory post verification of their sourcing of products and legitimacy of businesses.
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- Upon receiving the orders, the seller would hand over the product to third party courier service who will be delivering the product directly to the consumer.
- Both, seller and courier service, would get paid post delivery of product.
- Updating the delivery status in real time from courier website using APIs or other third-party tools, as well as providing them with a tracking ID to track it on courier website directly.

