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E-Commerce Website

Project Overview

The project involves developing a comprehensive e-commerce website with secure user registration and role-based access control for customers and administrators. It features a detailed product catalog with advanced search and filtering options, a robust shopping cart and checkout system integrated with secure payment gateways, and functionality for users to leave reviews.

Functional Requirements

1. Customer View

The customer view includes comprehensive features for customer capabilities as following :

1. Customer Authentication

- Customer can register into the website to create a new account.
- Customer can log in to his account using his email and password.
- Customer can update or reset his password via email if forgotten.

2. **Products Filtration**
   - Customer can search for a product and filter results by various categories.
   - Customer can filter by category, price and rating.
3. **Cart Management**
   - Customer can add, remove and update items in his cart.
   - Customer can view a summary of his cart including items details and total cost.
4. **Payment Details**
   - Customer can enter his shipping and billing information to complete his purchase.
   - Customer can receive a confirmation email upon successful payment.
5. **Order History**
   - Customer can track his order and view its history.
6. **Product Review**
   - Customer can leave reviews and ratings for purchased products.

2. Administrator View

The administrator view includes comprehensive features for administrator capabilities as following :

1. **Administrator Authentication**
   - administrator can register into the website to create a new account.
   - administrator can log in to his account using his email and password.

- administrator can update or reset his password via email if forgotten.

2. **Administrator Dashboard**
   - Administrator can manage the website's content and operations.
   - Administrator can add, update, and delete products and categories.
   - Administrator can manage orders.
   - Administrator can oversee user accounts and roles.

Non-Functional Requirements

1. Scalability

- The system can handle up to 3000 users concurrently
- The system can process between 30000 – 50000 order per day.

2. Security

- Password reset and authentication processes must comply with industry security standards.
- Access control will ensure only administrator can manage the content of the website.
- User data and transactions must be protected and encrypted.

3. User Experience

- The interface must be intuitive, allowing customer to manage shopping process easily with minimal training.
- The interface must be intuitive, allowing administrator to manage the website easily with minimal training.
- The system should provide clear feedback to customer for all actions (e.g., notifications for product addition, payment status).

4. Performance

- The response time for all operation should be 1s such as (e.g., product addition) on average load.
- Notification and email delivery must be near real-time (within seconds (5 - 7)s of payment or password reset).

5. Data Backup

- Daily backups must be maintained to ensure data integrity in the event of system failures.
- Task-related files and data should be backed up and easily recoverable.