SOFTWARE REQUIREMENTS SPECIFICATION

FASHORA: WHERE STYLE MEET AURA (WEBSITE)

SOFTWARE ENGINEERING

HNDIT4012

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DEPARTMENT OF INFORMATION TECHNOLOGY

ADVANCED TECHNOLOGY INSTITUTE

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1. INTRODUCTION

Purpose:

The purpose of this document is to define the functional and non-functional requirements for the development of the Fashora e-commerce website. The platform will provide an advanced online shopping experience and help Fashora Fashion Shop expand its market presence.

Scope:

This system will allow customers to browse and purchase fashion items online while providing an administrative panel for managing products, orders, and customer interactions. The website will incorporate secure transactions, a user-friendly interface, and real-time inventory updates.

System Environment:

The system will be a web-based application accessible via browsers on desktop and mobile devices. It will feature a responsive design.

References

- Web development standards: W3C, ECMAScript 2023
- Laravel Framework documentation
- MySQL database documentation

2. FUNCTIONAL REQUIREMENTS

This section details the specific functionalities that the software must perform. It includes descriptions of the inputs, outputs, and the relationship between them. Functional requirements define the expected behavior of the system.

   i)   User Module

User Registration & Login

- Input: Name, email, password
- Output: User account created, login confirmation

Browse Products

- Input: Search query, category filters
- Output: Display matching products

Add to Cart

- Input: Selected product
- Output: Product added to the shopping cart

Place Order

- Input: Shipping details, payment method
- Output: Order confirmation, receipt generation

Track Order

- Input: Order ID
- Output: Real-time order status updates

Leave Review & Rating

- Input: Product review, star rating

- Output: Display of customer review

ii) Admin Module

Manage Products

- Input: Product details (name, price, stock, images)

- Output: Updated product catalog

Manage Inventory

- Input: Stock updates, new product entries

- Output: Real-time inventory status updated

Monitor Orders & Payments

- Input: Order transactions, payment verifications

- Output: Order status updated; payment processed

View Sales Analytics

- Input: Date range, filters

- Output: Graphical sales reports and insights

iii) Order & Payment System
To simulate the process of payment handling within the e-commerce system using a third-party payment gateway (e.g., Stripe, PayPal), but without implementing the actual payment processing

Select Payment Method

- Input: Payment option (Credit Card, PayPal, etc.)

- Output: The system will simulate redirection to a payment gateway (e.g., Stripe Checkout, PayPal).

Process Payment

- Input: Payment details (credit card information or PayPal account)
- Output: The system will simulate a response from the payment gateway (approved/declined) without processing actual payments.
- **Note:** This feature is a simulation of payment processing and will not involve real transactions. The system will simulate the payment status response (approved/declined) for demonstration purposes.

Generate Invoice

- Input: Order details, customer details
- Output: An invoice is generated and displayed for the customer.

Send Order Confirmation

- Input: Order details, user email
- Output: A confirmation message will be displayed to the customer. (No actual email will be sent in this version of the project.)

3. **NON-FUNCTIONAL REQUIREMENTS**

Non-functional requirements specify the criteria that can be used to judge the operation of a system, rather than specific behaviors.
- Performance: The system should handle at least 500 concurrent users without lag.
- Security: Implementation of SSL, secure authentication, and fraud detection mechanisms.

- Usability: Intuitive UI/UX design to improve user engagement.
- Maintainability: Modular code for easy updates and enhancements.

4. INTERFACE REQUIREMENTS

- The software will interact with users through a modern and responsive UI.
- API integration for payment gateways and third-party services.
- Mobile-friendly design for accessibility.

5. PERFORMANCE REQUIREMENTS

- Response time should be under 2 seconds for key transactions.
- The system should support high-traffic scenarios without downtime.

6. DESIGN CONSTRAINTS

- Compliance with industry security standards such as SSL encryption.
- Hosting provider must support PHP 8.2 and MySQL databases.
- Must be mobile-responsive and optimized for multiple devices.

7. ACCEPTANCE CRITERIA

- Users can successfully register, log in, and manage their profiles.
- Customers can browse products, add items to the cart, and complete purchases seamlessly.
- The system processes payments securely and issues confirmations.
- Admins can efficiently manage inventory, orders, and customer interactions.
- The platform remains stable and responsive under high traffic.
- Security measures such as SSL encryption and user authentication are implemented.
- Sales analytics and reports are generated correctly for business insights.

THANKYOU!