**4. Supplementary specification for AIMS: An Internet Media Store**

AIMS Project is a desktop e-commerce software that operates 24/7, allowing new users to easily familiarize themselves. This software can serve up to 1,000 customers simultaneously without significantly reducing performance and can operate continuously for 300 hours without failure. Additionally, the software can resume normal operation within a maximum of 1 hour after an incident. The maximum response time of the software is 2 seconds under normal conditions or 5 seconds during peak hours.

**4.1 Functionality**

1. **User Management**
   * Administrators can create new users, view user information, update user information, delete users, and reset passwords of users.
   * Administrators can set or change the roles of users. Each user can have multiple roles, such as administrator or product manager.
   * They can block or unblock users as needed.
   * The software will automatically send email notifications to users for administrative actions.
2. **Product Management**
   * Product managers can add, view, edit, or delete any product.
   * The software will store a history of product addition, editing, and deletion operations.
   * Product managers can update the price of a product up to twice a day.
   * The price of the product must always be between 30% and 150% of the product value to avoid price inflation or undercutting.
   * Product managers cannot delete or update more than 30 products for security reasons, but they can add an unlimited number of products in a day.
3. **Product Search & Display**
   * When starting the software, a list of 20 random products will be displayed on each page.
   * Customers use product attributes to search.
   * The software will display 20 related products on each search page.
   * Customers can sort products by price.
4. **Shopping Cart**
   * Customer can add products with corresponding quantities to the current cart in the list of product or product detail screen.
   * When customers ask to view the cart, the software will display cart information, including the total price of products excluding VAT.
   * Customers can also remove products from the cart or change the quantity of products in the cart.
   * There is only one cart per software session, and the cart will be emptied after successfully paying for an order.
5. **Order Management**
   * Customers need to provide delivery information, including recipient name, email, phone number, province/city for delivery, and delivery address, as well as payment information.
   * The software will check the input information and ask customers to update if there are any required fields left blank or invalid information.
   * Customers have the option to select rush order delivery.
   * Customers can view order information or cancel orders using the links sent in the email regarding the order and transaction.
6. **Payment Integration**
   * The AIMS software connects to VNPay for further payment process by credit cards.
   * Customers need to provide all the necessary information and steps as requested by VNPay to successfully complete the transaction.
   * The full amount will be refunded to the payment method used for this order through VNPay.
7. **System Performance**
   * This software can serve up to 1,000 customers simultaneously without significantly reducing performance.
   * Can operate continuously for 300 hours without failure.
   * The maximum response time of the software is 2 seconds under normal conditions or 5 seconds during peak hours.
   * The software can resume normal operation within a maximum of 1 hour after an incident.
8. **Security & Data Integrity**
   * The software will store a history of product addition, editing, and deletion operations.
   * The software will notify the product manager if any operation is invalid.
   * The price of the product must always be between 30% and 150% of the product value to avoid price inflation or undercutting.
9. **Email Notifications**
   * The software will automatically send email notifications to users for administrative actions.
   * The software will send invoice and payment transaction information to the customer's email.
10. **Localization & Delivery**

* Rush order delivery allows customers to receive their items within a prearranged timeframe of 2 hours.
* Currently, rush order delivery is only available for addresses within the inner city of Hanoi (only districts).
* Shipping fees are calculated based on the weight of the heaviest item.
* Orders with a total value of the items exceeding 100,000 VND will qualify for free shipping, up to a maximum of 25,000 VND per order.

**4.2 Usability**

1. **User-Friendly Interface**
   * **The software allows new users to easily familiarize themselves.**
   * **Customers can navigate product lists, search, and sort with simple product attributes.**
2. **System Accessibility**
   * **The software operates 24/7 without requiring customer login for placing orders.**
3. **Cart Management**
   * **Customers can update, remove, and review products in the cart at any time before payment.**
4. **Order Process Guidance**
   * **The system prompts customers to update delivery or payment information if it is invalid or incomplete.**
5. **Email Notifications**
   * **Automatic emails provide clear order and transaction information to customers.**
6. **Multiple Roles Management**
   * **Users can have multiple roles and access features according to their assigned roles.**
7. **Error Messages & Notifications**
   * **The system notifies users if any operation is invalid or when the inventory is insufficient.**
8. **Order Cancellation**
   * **Customers can cancel orders via email links before the order is approved.**
9. **Multi-step Order Process**
   * **Customers can go back or exit the software at any step of the ordering process without losing progress.**
10. **Product Information Display**

* **Detailed product descriptions are shown, including price, quantity, and product attributes.**

**4.3 Reliability**

1. **The software operates continuously for 300 hours without failure.**
2. **The software resumes normal operation within a maximum of 1 hour after an incident.**
3. **The software notifies the product manager if any operation is invalid.**
4. **The software stores a history of product addition, editing, and deletion operations.**

**4.4 Performance**

* **The software operates continuously for 300 hours without failure.**
* **The software resumes normal operation within a maximum of 1 hour after an incident.**
* **The maximum response time of the software is 2 seconds under normal conditions or 5 seconds during peak hours.**
* **The software displays 20 random products on each search page when customers start the software or search for products.**
* **The software recalculates and updates delivery fees whenever customers adjust delivery methods or items.**

**4.5 Supportability**

* **The software stores a history of product addition, editing, and deletion operations.**
* **The software notifies product managers if any operation is invalid.**
* **The software automatically sends email notifications to users for administrative actions.**
* **The software connects to VNPay Sandbox for payment and refund transactions.**
* **The software allows customers to view order information or cancel orders using links sent via email.**