# ****Software Requirement Specification (SRS) for AIMS****

## ****1. Introduction****

### ****1.1 Purpose****

This document specifies the software requirements for the AIMS (An Internet Media Store) system. It includes functional requirements, non-functional requirements, and use case specifications.

### ****1.2 Scope****

AIMS is an e-commerce system for managing and selling media products (Books, CDs, DVDs). The system allows customers to browse products, place orders, and make payments while product managers can manage the product inventory.

### ****1.3 References****

* AIMS Problem Statement
* IEEE 830-1998 SRS Standard
* Lab & Assignment 02 - Use Case Specification
* Lab & Assignment 03 - SRS

## ****2. Overall Description****

### ****2.1 Product Functions****

AIMS provides the following functionalities:

* View product details
* Manage products (add, edit, delete)
* Place an order (normal or rush order)
* Process payments via VNPay
* Manage orders and transactions

### ****2.2 User Characteristics****

* **Customers**: Browse and purchase media products.
* **Product Managers**: Manage product listings and inventory.
* **System Administrators**: Manage users and roles.

## ****3. Use Case Specifications****

### ****3.1 Use Case: View Product Detail****

**Actors**: Customer, Product Manager  
**Description**: Allows users to view detailed information of a selected product.

#### ****Basic Flow****:

1. The user selects a product.
2. The system retrieves product details (title, price, description, stock availability).
3. The system displays the product details.
4. (Optional) The customer can add the product to the cart.
5. (Optional) The product manager can edit the product details.

#### ****Alternative Flows****:

* If the product does not exist, the system displays an error message.
* If the product is out of stock, the system notifies the customer.

### ****3.2 Use Case: Place Rush Order****

**Actors**: Customer  
**Description**: Allows a customer to place an order with rush delivery (within 2 hours).

#### ****Basic Flow****:

1. The customer selects "Place Rush Order."
2. The system verifies if the delivery address supports rush orders.
3. The system calculates the rush delivery fee.
4. The system displays order details and the final price.
5. The customer confirms the order.
6. The system processes the rush order and sends confirmation.

#### ****Alternative Flows****:

* If rush delivery is not available for the address, the system asks the customer to update the address or select normal delivery.
* If the customer cancels, the rush order is not placed.

### ****3.3 Use Case: Pay Order****

**Actors**: Customer, VNPay  
**Description**: The customer makes a payment via VNPay.

#### ****Basic Flow****:

1. The system displays the order invoice.
2. The customer selects "Pay Now."
3. The system redirects to VNPay for payment.
4. The customer enters payment details and confirms.
5. VNPay processes the payment and sends a response to AIMS.
6. The system updates the order status and sends a confirmation email.

#### ****Alternative Flows****:

* If payment fails, the customer is notified and can retry or cancel.
* If the customer cancels the payment, the order remains unpaid.

### ****3.4 Use Case: Place Order****

**Actors**: Customer  
**Description**: Allows a customer to place an order with standard delivery.

#### ****Basic Flow****:

1. The customer selects "Place Order."
2. The system verifies product availability.
3. The system prompts the user to enter delivery details.
4. The system calculates the shipping fee and total cost.
5. The customer confirms the order.
6. The system processes the order and updates the order status.

#### ****Alternative Flows****:

* If a product is out of stock, the system asks the customer to update the cart.
* If delivery details are incomplete, the system prompts for corrections.

### ****3.5 Use Case: Manage Product****

**Actors**: Product Manager  
**Description**: Allows a product manager to add, edit, or remove products.

#### ****Basic Flow****:

1. The product manager selects "Manage Product."
2. The system displays product management options.
3. The product manager chooses to add, edit, or delete a product.
4. The system validates and updates product information.
5. The system confirms the action and updates the database.

#### ****Alternative Flows****:

* If a product is invalid (e.g., missing required fields), the system prompts for corrections.
* If a product is being deleted but is part of an active order, deletion is restricted.

## ****4. Non-Functional Requirements****

* The system should process at least 1,000 concurrent users.
* Maximum response time: 2 seconds in normal conditions, 5 seconds at peak load.
* The system should recover from failures within 1 hour.
* Security: Only authorized users can modify product details or manage orders.

## ****5. Glossary****

* **AIMS**: An Internet Media Store.
* **VNPay**: The payment gateway used for processing transactions.
* **Rush Order**: An order delivered within 2 hours in supported locations.
* **Product Manager**: A user role responsible for managing product inventory.

## ****6. Appendices****

* Use Case Diagrams for AIMS.
* Activity Diagrams for "Pay Order" and "Place Rush Order."