

HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY
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Software Requirement Specification

Version 1.2

An Internet Media Store
Subject: ITSS Software Development

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1 Introduction

1.1 Objective

This document serves as a software requirement specification (SRS) for the Internet Media Store System, which is designed to provide an online platform for customers to purchase digital media. The objective of this document is to give an outline description of the system. The document also provides a thorough understanding of the purpose of the system as well as the features and functionalities of the system. The intended audience for this document includes stakeholders and software developers.

1.2 Scope

The AIMS system is a system that manages a store and automates the management of products, orders, and users.

1.3 Glossary

<i>No</i>	<i>Term</i>	<i>Explanation</i>	<i>Example</i>	<i>Note</i>
1	invoice	An invoice for a customer of an online media store is a document that outlines the details of a transaction between the store and the customer. It typically includes the items or services purchased, the price of each item or service, any applicable taxes or fees, the total amount due, and payment instructions. The invoice serves as a record of the transaction and is used by the customer to make payment and by the store to track sales and inventory.		
2	CRUD operations	CRUD is an acronym that stands for Create, Read, Update and Delete		
3.	Transaction ID	A unique identifier assigned to each payment transaction		

<i>No</i>	<i>Term</i>	<i>Explanation</i>	<i>Example</i>	<i>Note</i>
4.	VNPay	A secure online service that authorizes payments between customers and businesses		
5.	Input Validation	The process of checking user input for errors or invalid data	AIMS will check the delivery information submitted by customers and ask them to update if there are any invalid entries	This prevents errors during order processing.

1.4 References

2 Overall Description

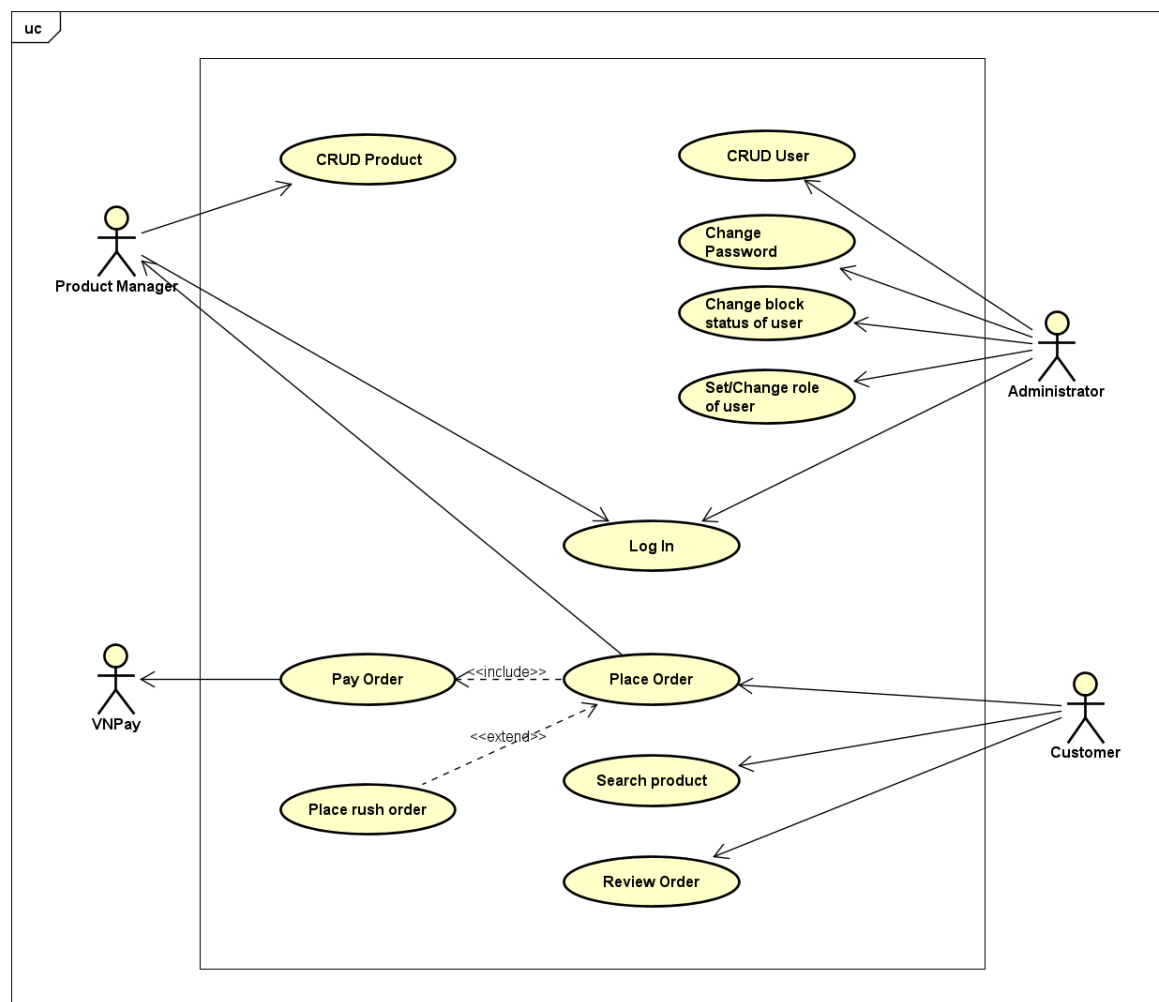
2.1 Survey

The software system includes four actors including Customer, Admin, Product Manager and VNPay.

- Customer is the person who visits the AIMS website to browse, search and purchase media products.
- Administrator is the person responsible for managing the AIMS system, updating products information, managing orders and customers.
- Product Manager is the person who uses AIMS software to manage and sell their products.
- VNPay is the service provider that processes payment made by the customers through the AIMS system.

2.2 Overall requirements

AIMS Use Case



2.3 Business process

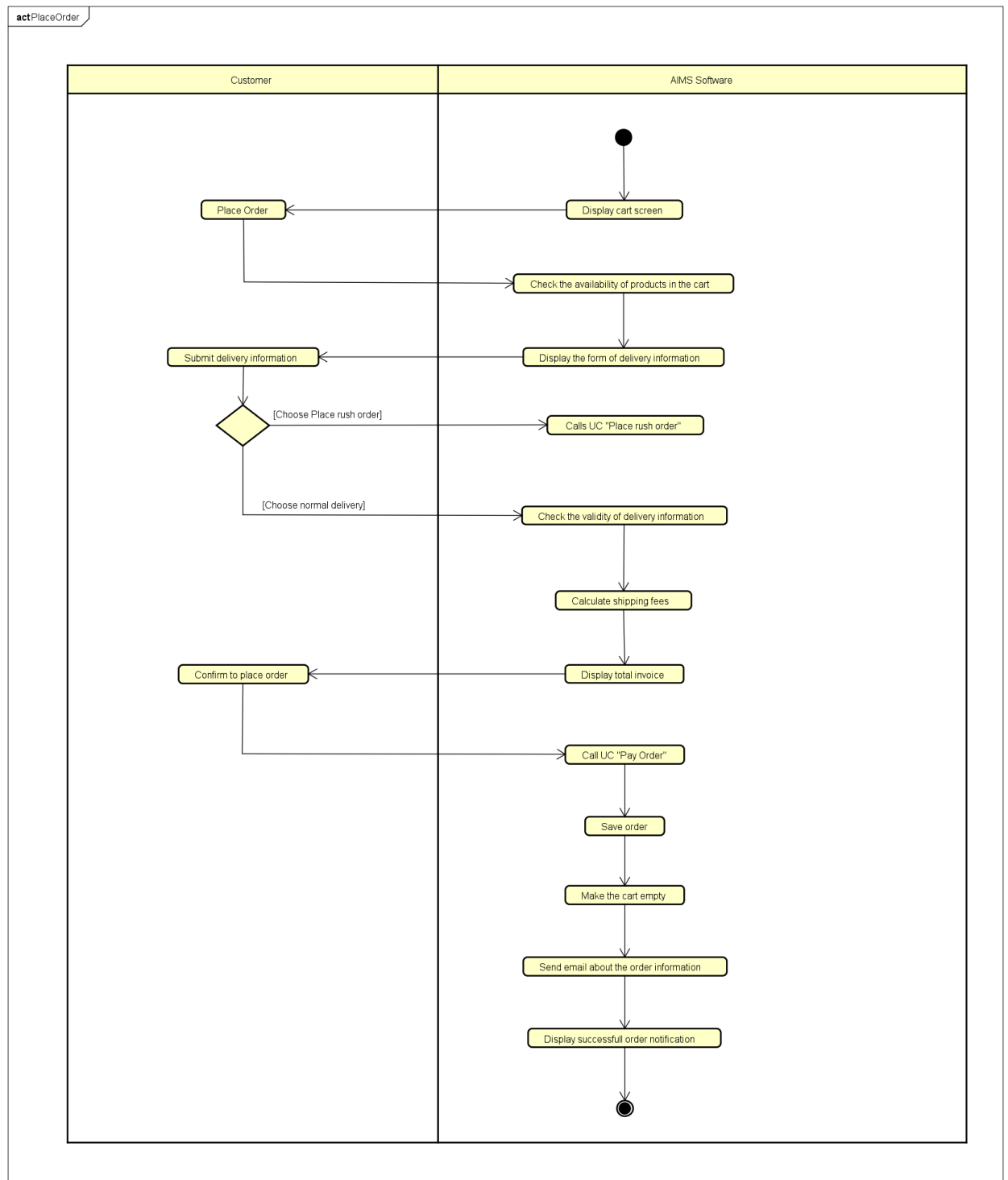


Figure 1. Activity Diagram - Place Order

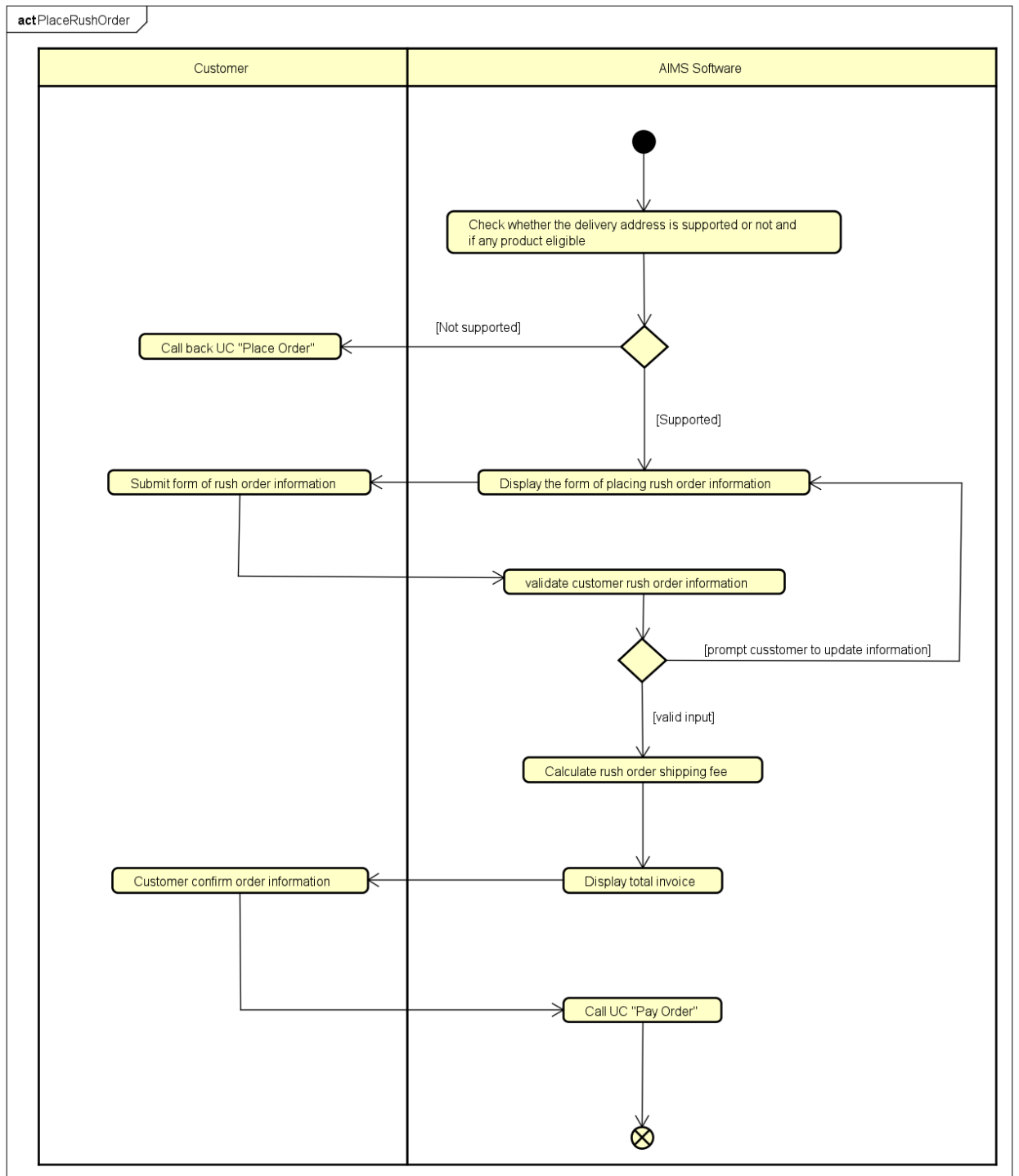


Figure 2. Activity Diagram - Place Rush Order

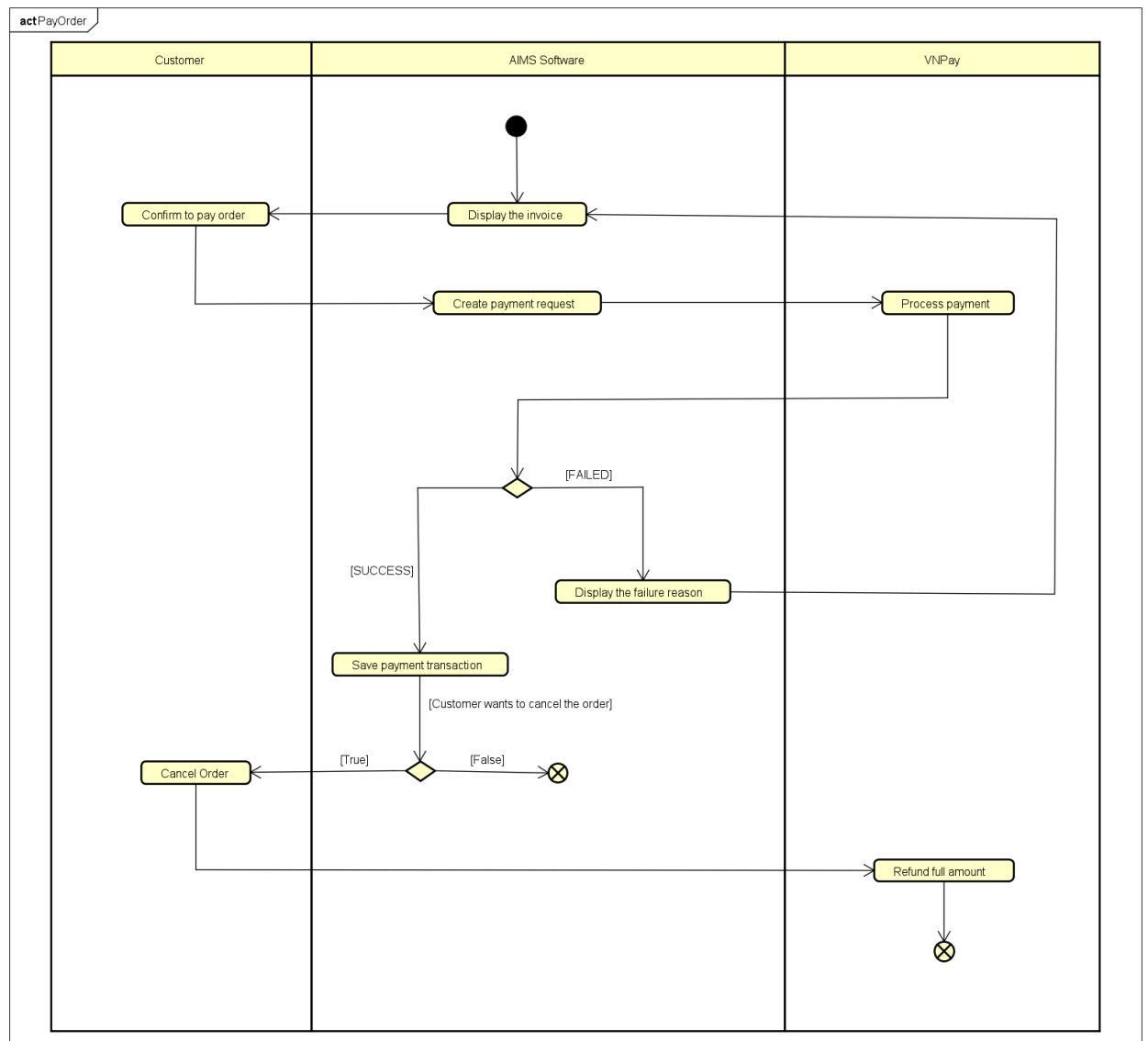


Figure 3. Activity Diagram - Pay Order

3 Detailed Requirements

3.1 Use case 1

Use case - Place Order

1. Use case code

UC01

2. Brief Description

The use case describes the interactions between customers and AIMS software when the customer wants to place an order.

3. Actors

3.1. Customer

4. Preconditions

There is at least one item in the cart.

5. Basic flow

Step 1. Customer requests to place an order in the cart.

Step 2. AIMS software checks the availability of products in the cart.

Step 3. AIMS software displays the form of delivery information with order information.

Step 4. Customer enters and submits delivery information. (Table 1)

Step 5. AIMS software calculates and displays order and shipping fees. (Table 2)

Step 6. The customer confirms the invoice and asks to pay order.

Step 7. The AIMS software calls UC “Pay Order”.

Step 8. The AIMS software saves order and creates a new order.

Step 9. The AIMS software makes the cart empty.

Step 10. The AIMS software sends email about the order notification and information.

Step 11. The AIMS software displays the successful order notification, the order and the transaction information. (Table 3)

6. Alternative flow

No	Location	Condition	Action	Resume Location
1.	At Step 3	If the products are not available	The AIMS software notifies that the products in the cart are not available and stay at the use case “View cart”	Use case ends
2.	At Step 5	If the delivery info is invalid	AIMS software notifies that the delivery info is invalid (blank or wrong format)	At Step 3
3.	At Step 5	If the user chooses to place a rush order	AIMS software inserts use case “Place rush order”	At Step 6
4.	At Step 8	If the order payment is not successful or goes back from	AIMS software notifies that the order payment is unsuccessful	At Step 5

		payment		
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7. Input

Table 1. Input data of delivery information

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Receiver name		Yes		Mai Duc An
2.	Phone number		Yes	10 digits	0353024468
3.	Province	Choose from a list	Yes		Hanoi
4.	Address		Yes		1st Dai Co Viet, Hai Ba Trung, Hanoi
5.	Shipping instructions		No		

8. Output data

Table 2. Output data of order information and shipping fee

No	Data fields	Description	Display format	Example
1.	Title	Title of a media product		DVD Phim Vượt ngục
2.	Price	Price of the corresponding media product	- Comma for thousands separator - Positive integer - Right alignment	123,000
3.	Quantity	Quantity of the corresponding media	- Positive integer - Right alignment	2
4.	Amount	Total money of the corresponding media	- Comma for thousands separator - Positive integer - Right alignment	246,000
5.	Subtotal	Total amount of all products in the order	- Comma for thousands separator - Positive integer - Right alignment	2,316,000
6.	Shipping fee		- Comma for thousands	30,000

			separator - Positive integer - Right alignment	
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Table 3. Output data of general information of order and transaction info

No	Data fields	Description	Display format	Example
1.	Customer name			Mai Duc An
2.	Phone number			0353024468
3.	Province			Hanoi
4.	Address	Address of receiver		1st Dai Co Viet, Hai Ba Trung, Hanoi
5.	Total amount	Total amount of all products in the order	Right alignment Vietnamese currency (VND) Vietnamese locale	1.200.000 VND
6.	Transaction ID			
7.	Transaction content			
8.	Transaction date		dd/mm/yyyy	09/03/2024

9. Postconditions

A new order is created, and its information is sent via email to the customer.

3.2 Use case 2

Use case - Pay Order

1. Use case code

UC02

2. Brief Description

The use case describes the interactions between AIMS software with the customer and VNPay when the customer desires to pay an order.

3. Actors

3.1. Customer

3.2. VNPay

4. Preconditions

The customer has confirmed the invoice. AIMS software has calculated the total amount of money that the customer has to pay.

5. Basic flow

Step 1. AIMS software displays the invoice (Table 1).

Step 2. Customer asks to pay the invoice.

Step 3. AIMS software redirects to VNPay with payment information.

Step 4. VNPay notifies the transaction result. (Table 2)

Step 5. AIMS software saves the payment transaction.

6. Alternative flow

No	Location	Condition	Action	Resume Location
1.	At Step 5	If the customer cancels the payment transaction		At Step 1

7. Input

Table 1. Input data of payment information

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Card holder name		Yes		Mai Duc An
2.	Card number		Yes	16 digits	1234 5678 9876 5432
3.	Expiration date	The month, year of card expiration	Yes	mm/yy	12/26
4.	Security code		Yes		123456

8. Output data

Table 2. Output data of general information of order and transaction info

No	Data fields	Description	Display format	Example
1.	Title	Title of a media product		DVD Phim Vượt ngục
2.	Price	Price of the corresponding media product	- Comma for thousands separator - Positive integer - Right alignment	123,000
3.	Quantity	Quantity of the corresponding media	- Positive integer - Right alignment	2
4.	Amount	Total money of the	- Comma for	246,000

		corresponding media	thousands separator - Positive integer - Right alignment	
5.	Subtotal before VAT	Total amount of all products in the cart before VAT		2,106,000
6.	Subtotal	Total amount of all products in the cart with VAT		2,316,000
7.	Shipping fee			30,000
8.	Total	Sum of subtotal and shipping fees		2,346,000
9.	Currency			VND
10.	Name			Mai Duc An
11.	Phone number			0123456789
12.	Province			Hanoi
13.	Address			1st Dai Co Viet, Hai Ba Trung, Hanoi
14.	Shipping instructions			

9. Postconditions

- AIMS software notifies successful payment.
- Order details are stored in the system.
- An email of successful order sent to.

3.3 Use case 3

Use case - Place Rush Order

1. Use case code

UC03

2. Brief Description

The use case describes the interactions between AIMS software with the customer when the customer wishes to place a rush order which allows them to receive the order within a shorter time frame.

3. Actors

3.1. Customer

4. Preconditions

The customer has provided the delivery information and wants to place a rush order.

5. Basic flow

Step 1. The customer requests to place a rush order.

Step 2. AIMS software checks the address that is supported for the selected product and delivery address.

Step 3. AIMS software prompts the customer to update the delivery information.

Step 4. Customer provides rush order delivery information. (Table 1)

Step 5. AIMS Software verifies the customer rush order information and calculates rush order shipping fee.

6. Alternative flow

No	Location	Condition	Action	Resume Location
1.	At Step 2	If rush order is not supported for shipping address or selected product	The AIMS software notifies the customer that rush order is not supported	Continue Use case "Place an order" with normal delivery.
2.	At Step 5	If the delivery address is not supported	The AIMS software notifies the address is not supported for rush order	At Step 3

7. Input

Table 1. Input data of rush order information

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Delivery time		Yes		14h
2.	Delivery instructions		Yes		

8. Output data

9. Postconditions

- Customer places rush order successfully.
- Customer continues at payment step.

4 Supplementary specification

4.1 Functionality

- The AIMS Software should allow new customers to create an account easily and securely.
- The administrator should be able to create, view, update, and delete products as per the given regulations.
- The AIMS Software should allow customers to search for products and sort them by price.
- The cart should display the information of the products, including their price, quantity, and inventory status.
- The AIMS Software should notify the customer if the inventory quantity of any product is not enough and show the available quantity for each of those products.
- The AIMS Software should allow the customer to edit the ordered quantity in the cart or remove the products from the cart.
- The AIMS Software should allow customers to place and pay for orders, with or without an account, using secure and reliable payment methods.

4.2 Usability

- The AIMS Software should have an intuitive and user-friendly interface for both administrators and customers.
- The AIMS Software should be easily accessible from any platform and device.
- The AIMS Software should provide clear and concise instructions and error messages.

4.3 Reliability

- The AIMS Software should operate 24/7 without failure and serve 1000 customers at the same time without the noticeable loss of performance.
- The AIMS Software should be able to handle peak loads of up to 2000 customers without crashing.
- The AIMS Software should be able to recover from any failure within 1 hour.

4.4 Performance

- The AIMS Software should have a response time of 1 second at normal or 2 seconds during a peak load.

- The AIMS Software should be able to handle up to 10,000 products without affecting its performance.
- The AIMS Software should be able to update the price of a product up to 2 times in a day.

4.5 Supportability

- The AIMS Software should be easy to maintain and upgrade.
- The AIMS Software should have a well-documented source code and a user manual for administrators and customers.
- The AIMS Software should provide prompt and reliable technical support to users.