

HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Software Requirement Specification

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1 Introduction

1.1 Objective

1.2 Scope

1.3 Glossary

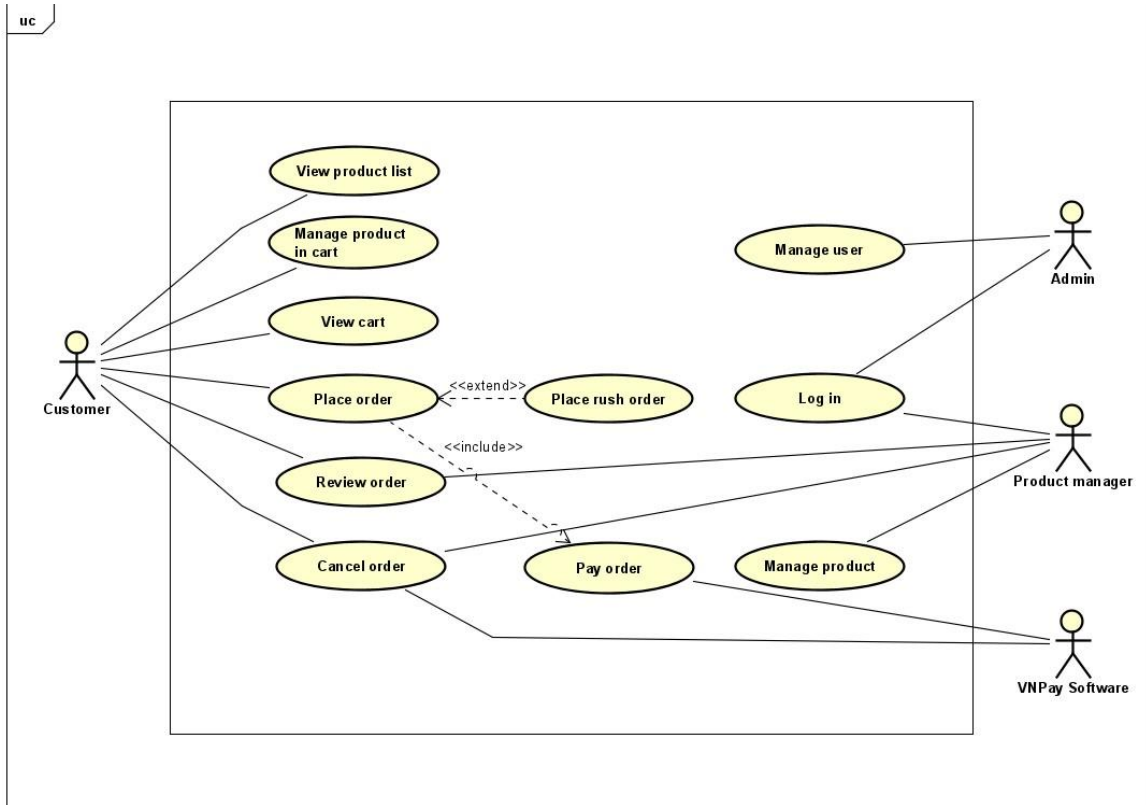
<i>No</i>	<i>Term</i>	<i>Explanation</i>	<i>Example</i>	<i>Note</i>
1	VAT (Value Added Tax)	A consumption tax added to the price of products (10%).	Price before VAT: 2,106,000 Price after VAT: 2,316,600	
2	Rush Order Delivery	An expedited shipping option that guarantees delivery within a shorter timeframe, typically within 2 hours for eligible products and addresses within the specified area.		
3	AIMS	The name of the desktop e-commerce software designed for buying and selling physical media products		

1.4 References

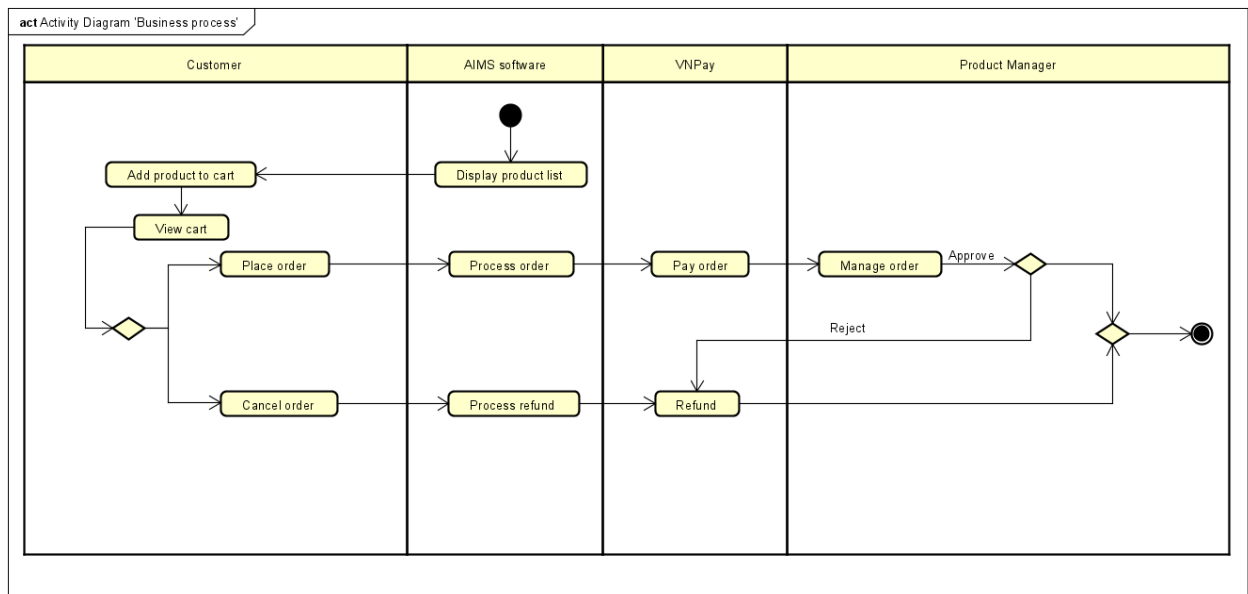
2 Overall Description

2.1 Survey

2.2 Overall requirements



2.3 Business process



3 Detailed Requirements

3.1 Use case 1

Use Case “Place Order”

1. Use case code

UC001

2. Brief Description

This use case describes the interaction between Customer and AIMS software when Customer wish(es) to place an order

3. Actors

3.1 Customer

4. Preconditions

There is at least one item in the cart.

5. Basic Flow of Events

1. Customer views the cart and select the products they want to purchase
2. Customer requests to place an order
3. AIMS software checks the availability of products in the car
4. AIMS software displays the form of delivery information with order information
5. Customers enters and submits delivery information (see Table A)
6. AIMS software checks the input information
7. Customer selects order delivery options: rush order delivery or default order delivery
8. AIMS software checks the delivery method
9. AIMS software calculates the payment and displays to customer (see Table B)
10. Customer asks to pay order
11. AIMS software calls UC “Pay order”
12. AIMS software creates a new order
13. AIMS software sends invoice and payment transaction information to the customer's email
14. The AIMS software displays the successful order notification, the order and the transaction information (see Table C).

6. Alternative flows

Table 1-Alternative flows of events for UC “Place order”

No	Location	Condition	Action	Resume location
1.	At Step 3	If the inventory quantity is insufficient	<ul style="list-style-type: none"> AIMS software asks customers to update the cart 	Resumes at Step 1
2.	At Step 6	If there are any required fields left blank or invalid information	<ul style="list-style-type: none"> AIMS software asks customers to update information 	Resumes at Step 5
3.	At Step 8	If customer chooses rush order delivery method	<ul style="list-style-type: none"> AIMS software calls UC “Place rush order” 	Resumes at Step 9
4.	At Step 12	If the order payment is not successful or goes back from payment		Resumes at Step 9

7. Input data**Table A-Input data of delivery informatin**

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Receiver Name	Receiver’s name	Yes	English letters	Do Minh Hieu
2.	Phone number	Receiver’s phone number	Yes	10 digits	0987654321
3.	Province	Choose from a list	Yes	NONE	Hanoi
4.	Address	Receiver’s address	Yes	NONE	12, 34 Alley of Tran Thai Tong street, Cau Giay district
5.	Shipping instructions	Shipping instructions	No	NONE	Hide receiver information

8. Output data**Table B-Output data of order information and shipping fee**

No	Data fields	Description	Display format	Example
----	-------------	-------------	----------------	---------

1.	Title	Title of a media product	NONE	DVD Phim Vượt ngục
2.	Price	Price of the corresponding media	- Comma for thousands - 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	- Comma for thousands - Positive integer - Right alignment	246,000
5.	Subtotal	Total amount of all products in the order		2,316,600
6.	Shipping fees	Shipping fees		30,000

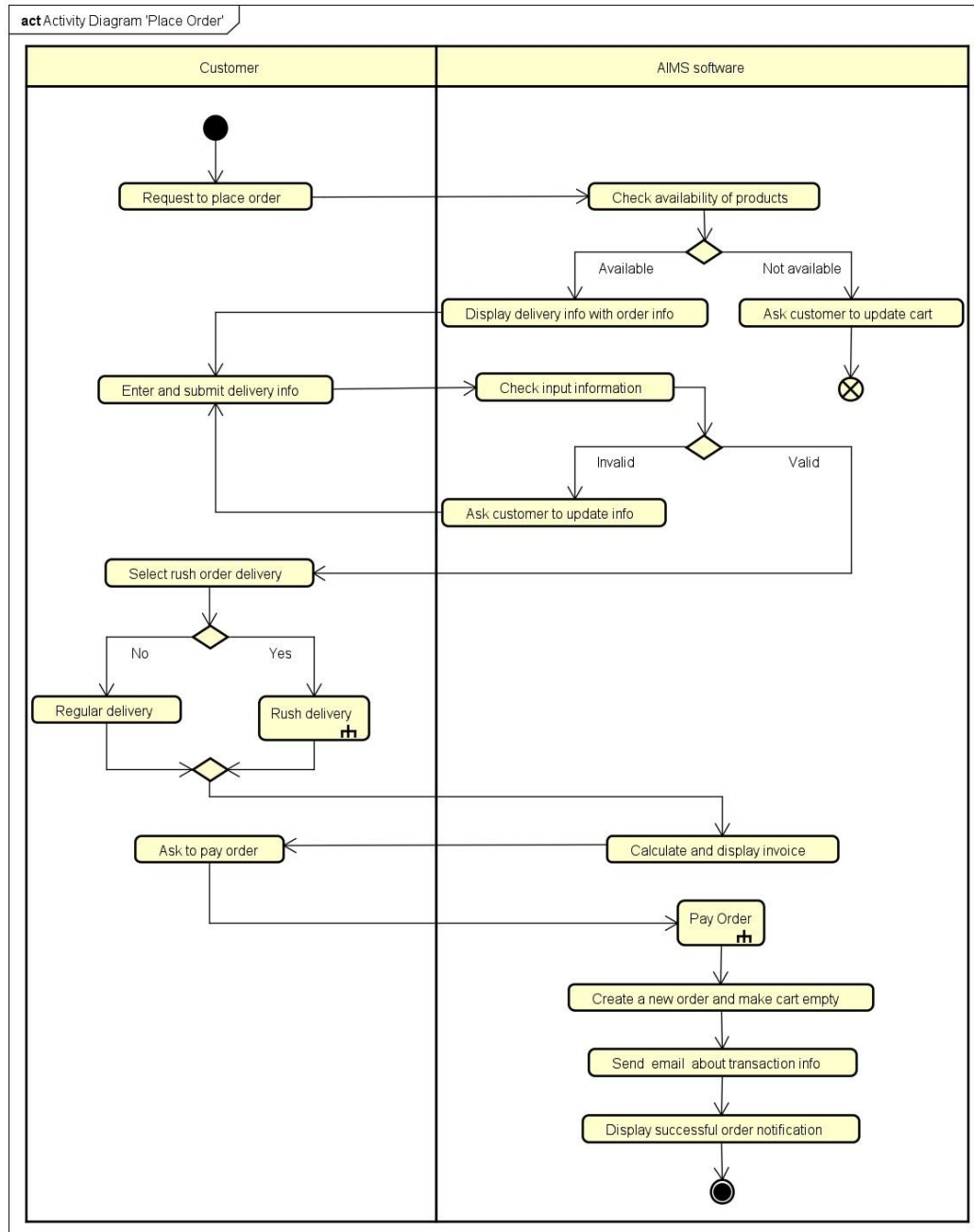
Table C-Output data of general information of order and transaction info

No	Data fields	Description	Display format	Example
1.	Customer name	Customer's name	English letters	Do Minh Hieu
2.	Phone number	Customer's phone number	10 digits	0987654321
3.	Province	Choose from a list	NONE	Hanoi
4.	Address	Customer's address	NONE	12, 34 Alley of Tran Thai Tong street, Cau Giay district
5.	Total amount	Total amount of all products in the order	- Right alignment - Vietnamese currency (VNĐ) - Vietnamese locale	1.200.000 VNĐ
6.	Transaction ID	Created by software	NONE	
7.	Transaction content	Default or edited by customer	NONE	
8.	Transaction date	Date of transaction	dd/mm/yyyy	05/10/2023

9. Postconditions

A new order is created, and its information is sent via email to the customer or nothing happens if payment is not successful.

10. Activity diagram



3.2 Use case 2

Use Case “Pay Order”

1. Use case code

UC002

2. Brief Description

This use case describes the interaction between AIMS software and Customer, Product Manager, VNPay when Customer wish(es) to pay an order

3. Actors

3.1 Customer

3.2 Product Manager

3.3 VNPay

4. Preconditions

AIMS software have calculated the payment of the order and customer asked to pay the order.

5. Basic Flow of Events

1. AIMS software displays the invoice (see Table A)
2. Customer asks to pay the invoice
3. AIMS software redirects to VNPay with payment information
4. VNPay notifies the transaction result
5. AIMS software saves the payment transaction

6. Alternative flows

Table 1-Alternative flows of events for UC “Place order”

No	Location	Condition	Action	Resume location
1.	At Step 5	If the customer cancels the order or product manager rejects the order	<ul style="list-style-type: none">▪ The payment is refunded through VNPay	Resumes at Step 1

7. Input data

8. Output data

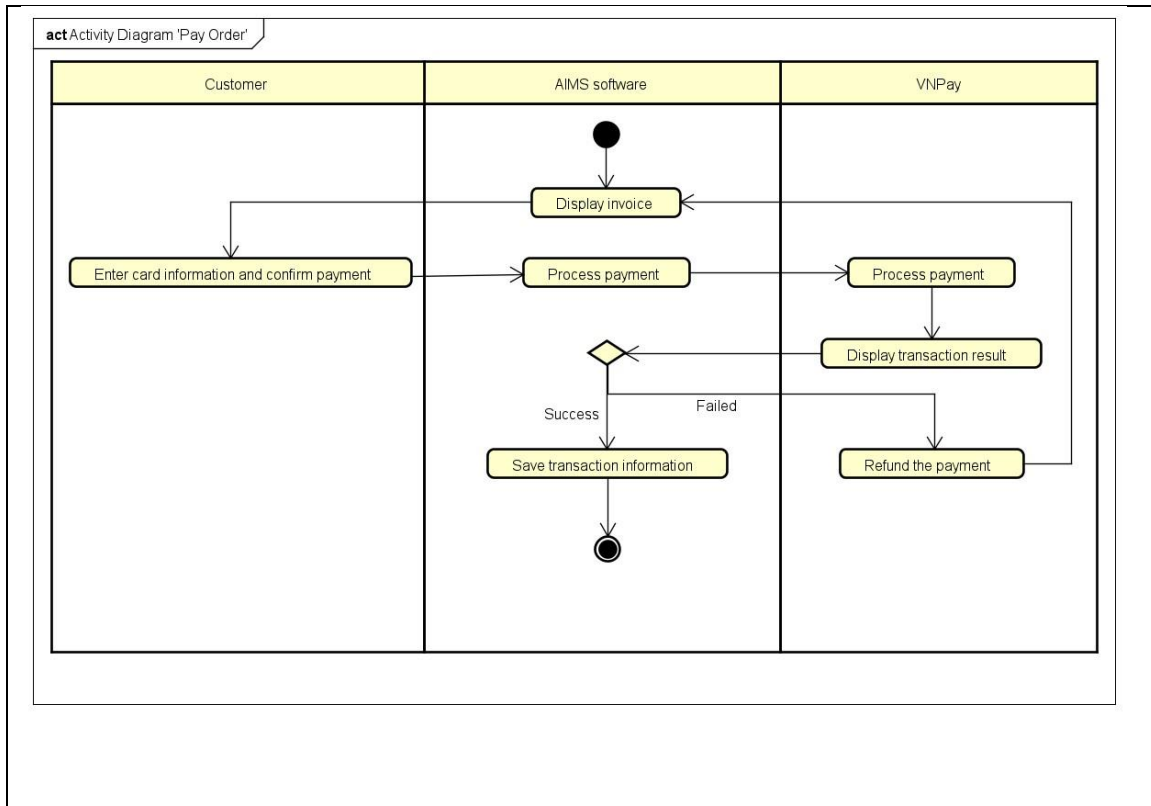
Table A- Output data of invoice

No	Data fields	Description	Display format	Example
----	-------------	-------------	----------------	---------

1.	Title	Title of a media product	NONE	DVD Phim Vượt ngục
2.	Price	Price of the corresponding media	- Comma for thousands - 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	- Comma for thousands - Positive integer - Right alignment	246,000
5.	Subtotal before VAT	Total price of products in the cart before VAT	- Comma for thousands Separator - Positive integer - Right alignment	2,106,000
6.	Subtotal	Total price of products in the cart with VAT		2,316,600
7.	Shipping fees	Shipping fees		30,000
8.	Total	Sum of subtotal and shipping fees		2,346,600
9.	Currency	Currency of money	NONE	VND
10.	Name	Customer's name	English letters	Do Minh Hieu
11.	Phone number	Customer's phone number	10 digits	0987654321
12.	Province	Choose from a list	NONE	Hanoi
13.	Address	Customer's address	NONE	12, 34 Alley of Tran Thai Tong street, Cau Giay district
14.	Shipping instructions	Shipping instructions	NONE	Hide information

9. Postconditions

10. Activity diagram



3.3 Use case 3

Use Case “Place Rush Order”

1. Use case code

UC003

2. Brief Description

This use case describes the interaction between Customer and AIMS software when Customer wish(es) to place an rush order

3. Actors

3.1 Customer

4. Preconditions

There is at least one item in the cart. Customer selects rush order delivery method.

5. Basic Flow of Events

1. AIMS software checks if the delivery address supports rush delivery and if any products are eligible
2. AIMS software displays additional rush order delivery (see Table A)

3. Customer enters and submits additional information
4. AIMS software updates formula for calculate delivery fees

6. Alternative flows

Table 1-Alternative flows of events for UC “Place order”

No	Location	Condition	Action	Resume location
1.	At Step 1	If no products are eligible or the delivery address doesn't support rush order delivery	<ul style="list-style-type: none"> AIMS software prompts the customer to update the delivery information or delivery method 	End use case
2.	At Step 4	If only certain products are eligible for rush order delivery	<ul style="list-style-type: none"> Delivery fees will be calculated and displayed separately for regular delivery items (if any) and rush order delivery items 	End use case
3.	At Step 4	If all products in the order are eligible for rush order delivery	<ul style="list-style-type: none"> Delivery fees will be calculated and displayed for this group of products. 	End use case

7. Input data

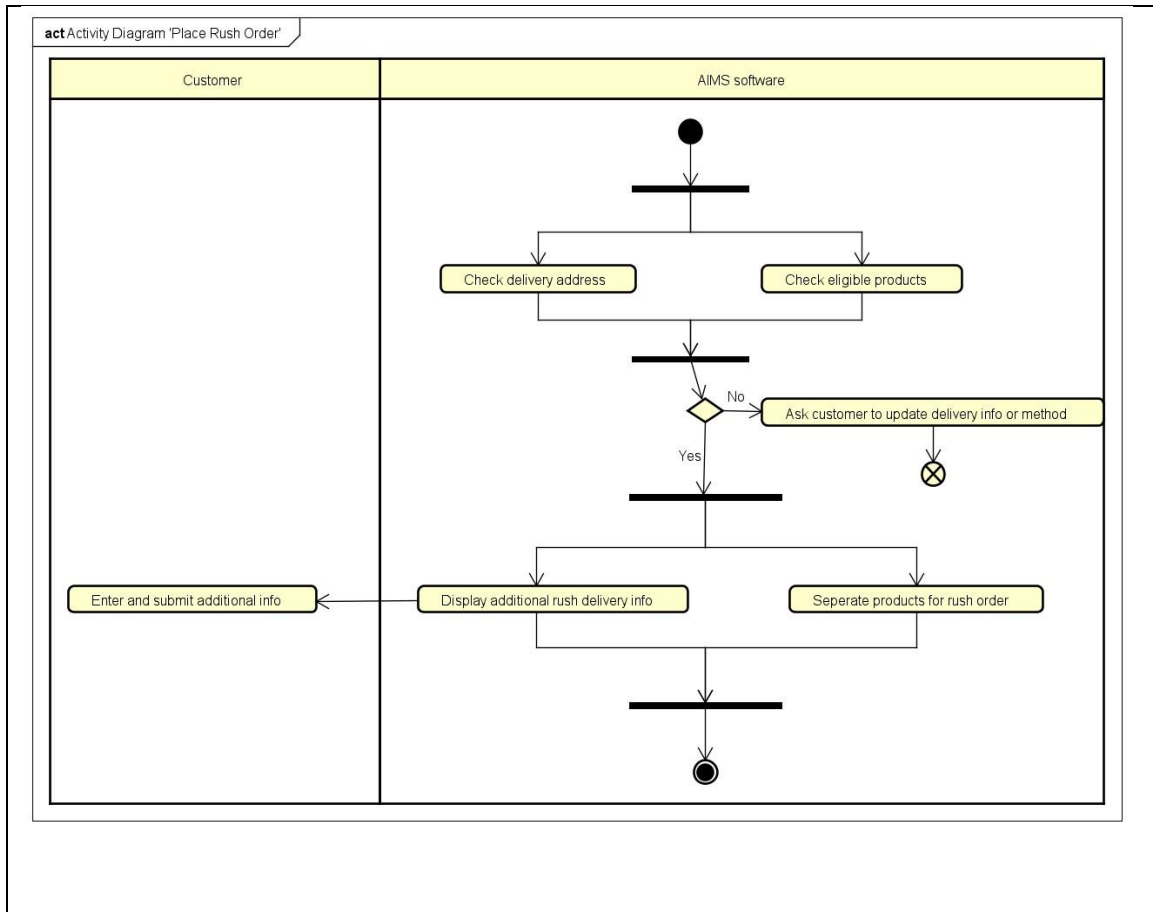
Table A-Input data of additional rush order delivery information

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Delivery time	Delivery time for rush order delivery	Yes		8h-10h 10/03/2024
2.	Delivery instructions		No	NONE	

8. Output data

9. Postconditions

10. Activity diagram



4 Supplementary specification

4.1 *Functionality*

- Customer: Place order, view product, search product, view cart, cancel order, view order.
- Product manager: manage product
- Administrator: manage user

4.2 *Usability*

- Operates 24/7, allowing new users to easily familiarize themselves.

4.3 *Reliability*

- The software can resume normal operation within a maximum of 1 hour after an incident

4.4 *Performance*

- Can serve up to 1,000 customers simultaneously without significantly reducing performance and 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

4.5 *Supportability*