

IT4490 – Software Design and Construction

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USE-CASE “PLACE ORDER”

1. Use case code

UC001

2. Brief description

This use case describes the interaction between customers and AIMS software when the customer wishes to place order.

3. Actors

3.1. Customer

3.2. AIMS software

4. Preconditions

- There is at least one item in the cart

5. Basic Flow of Event

Step 1: Customer requests to place 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 2)

Step 5: AIMS software calculates and updates order information with shipping fees (Table 3)

Step 6: Customer asks to pay order

Step 7: AIMS software calls UC “Pay order”

Step 8: AIMS software display general information of the order (Table 4)

Step 8: AIMS software send invoice and payment transaction information to the customer’s email

Step 9: AIMS software records the payment transaction information and the successfully paid order

Step 10: AIMS software makes the cart empty

6. Alternative flows

Table 1: Alternative flow of events for UC "Place Order"

No	Location	Condition	Action	Resume location
1	Step 3	If the inventory quantity of these products is insufficient	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	Step 6	If there are any required fields left blank or invalid information	AIMS software notifies that the delivery info is invalid (blank or wrong format)	Step 3
3	Step 5	If the user chooses to place a rush order	AIMS software inserts use case "Place rush order"	Step 5 (in "flow of events" above)
4	Step 6	If the users want to adjust the delivery method or the items	AIMS software backs to the form of information	Step 3
5	Step 9	If customer cancels the order before the order is approved	AIMS software refunds to the customer using VNPAY	Use case ends

7. Input data

Table 2: Input data of delivery information

No	Data fields	Description	Mandatory	Valid condition	Example
1	Recipient Name		Yes		Nguyen Hung Cuong
2	Phone Number		Yes	10 digits	0987654321
3	Email		Yes		Cuong.ng.23@gmail.com
4	Province/City	Choose from a list	Yes		Hanoi
5	Address		Yes		12 Hang Trong
6	Note		No		Che ten

8. Output data

Table 3: Output data of invoice information

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	<ul style="list-style-type: none"> - Comma for thousands separator - Positive integer - Right alignment 	123,000
3	Quantity	Quantity of the corresponding media	<ul style="list-style-type: none"> - Positive integer - Right alignment 	2
4	Amount	Total money of the corresponding media	<ul style="list-style-type: none"> - Comma for thousands separator - Positive integer - Right alignment 	246,000
5	Subtotal	Total price of products	<ul style="list-style-type: none"> - Comma for thousands separator - Positive integer - Right alignment 	2,106,000
7	Shipping fees			30,000
8	Total	Sum of subtotal and shipping fees		2,346,000
9	Currency			VND

Table 4: Output data of order and transaction information

No	Data fields	Description	Display format	Example
1	Name	Name of receiver		Do Minh Hieu
2	Phone number	Valid phone number, SMS authenticate		0987654321
3	Province	In Vietnam		Hanoi
4	Address			12, 34 Alley of Tran Thai Tong
5	Shipping instructions			Hide information
6	Total amount		<ul style="list-style-type: none"> - Comma for thousands separator 	2,346,000
7	Transaction ID	Take information from VNPay message result	<ul style="list-style-type: none"> - Right alignment - Only alphabet uppercase and number character 	VNPAY1234
8	Transaction content		<ul style="list-style-type: none"> - No tone mark 	Chuyen khoản mua hàng

9	Transaction datetime		- Year/Month/Day	2024/9/16
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9. Post-conditions

The order information and payment transaction are sent to the customer's email or nothing happens if payment is not successful