

Use Case “PLACE ORDER”

1. Use case code

UC001

2. Brief description

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

3. Actors:

3.1 Customer – Initiates the order and provides necessary details for delivery.

4. Preconditions:

- The customer must have selected products in the cart.
- The software must have access to the inventory system.

5. Basic Flow of Events:

1. Customer reviews their cart and selects desired products.
2. Customer initiates the order placement.
3. System checks product availability (check inventory)
4. Customer provides delivery details (name, email, phone, province/city, and address)
5. System calculates and displays shipping costs based on location and product weight.
6. System invokes the "Pay Order" use case.
7. System records transaction details and confirms successful payment.

6. Alternative Flows:

Table 1: Alternative flow of events in use case "Place Order"

No	Location	Condition	Action	Resume location
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1	At step 3	Insufficient stock for one or more items.	1. System displays a stock shortage notification, indicating available quantities for affected items. 2. Customer modifies their cart. 3. Customer reinitiates the order placement.	Step 3
2	At step 4	Customer submits invalid or incomplete delivery information.	1. System shows an error message highlighting missing or incorrect fields. 2. Customer revises delivery information.	Step 4
3	At step 4	The customer chooses rush order delivery option.	1. System calls the use case "Place Rush Order".	Step 5

7. Input Data:

Table 2: Input data of delivery information

No.	Data Fields	Description	Mandatory	Valid Condition	Example
1	Recipient Name	Name of the person receiving order	Yes	Non-empty	Viet Anh
2	Email	Customer's email address	Yes	Valid email format	vietanh@gmail.com
3	Phone Number	Contact number for delivery	Yes	Valid phone number	0123456789
4	Province/City	Delivery location	Yes	Selected from	Hanoi

				predefined list	
5	Delivery Address	Street address for delivery	Yes	Non empty	123 Main St
6	Credit Card Details	Payment information	Yes	Valid card information as per VNPay requirements	N/A

8. Output Data:

Table 3: Output data of general information of order and transaction info

No.	Data Field	Description	Display Format	Example
1	Customer Name	Name of the customer placing the order	Text	Viet Anh
2	Phone Number	Customer's contact number	Phone number format	0123456789
3	Province	Customer's province or city for delivery	Text	Hanoi
4	Address	Customer's full delivery address	Text	123 Main St
5	Total Amount (Cash)	Total payment amount including VAT and delivery	Currency format	9,900,000 VND
6	Transaction ID	Unique ID for the payment transaction	Alphanumeric	TX123456789
7	Transaction Content	Description of the transaction or order purpose	Text	"Order payment for electronics"

9. Post conditions:

- The order is successfully placed and payment is processed.
- The customer receives an invoice and order confirmation via email.
- The system records the transaction and the order is queued for fulfillment.
- Update inventory