Use Case "Place Order"

1. Use case code
UC004

2. Brief Description
This use case describes how a user interacts with the AIMS system to place an order for the selected products in their shopping cart.

3. Actors

3.1 Primary Actor: Customer

3.2 Supporting Actor: System

4. Preconditions
- Customer has items in their cart
- Cart items are available for purchase

5. Basic Flow of Events
1. Customer initiates order placement
2. System displays delivery information form
3. Customer enters delivery information (name, address, phone, email)
4. System validates delivery information
5. System calculates shipping fee based on
    - Customer's location
    - Order weight
    - Total order value
6. System checks rush order eligibility
7. System calculates order total
8. Customer confirms order
9. System processes the order
10. System displays order confirmation

6. Alternative flows

Table N-Alternative flows of events for UC Place order

No	Location	Condition	Action	Resume location
1.	Step 4	Invalid Delivery Information	System displays error message	Step 3
2.	Step 6	Rush Order Not Available	System notifies customer that rush order is unavailable	Step 7

3.	Any Step	Cart Items Unavailable	System notifies customer of unavailable items	Step 1

7. Input data

Table A-Input data of …

No	Data fields	Description	Mandatory	Valid condition	Example
1.	Name	Recipient's name	Yes	Must not be empty, must be a string.	Nguyen Van A
2.	Phone	Recipient's phone number	Yes	Must not be empty, must be a 10-digit string starting with 0.	0123456789
3.	Email	Recipient's email	Yes	Must not be empty, must be in a valid email format (e.g., example@domain.com).	example@domain.com
4.	Province	Recipient's province/city	Yes	Must be selected from the list of supported provinces/cities.	Ha Noi (TP)
5.	Address	Recipient's detailed address	Yes	Must not be empty.	No. 1, ABC Street, XYZ Ward, DEF District

8. Output data

Table B-Output data of …

No	Data fields	Description	Display format	Example
1.	Order ID	Order ID	Positive integer	12345
2.	Order Items	List of products in the order	List of products, each product includes: image, name, unit price, quantity, total price	Displays a list of products with image, name, unit price, quantity, total price

3.	Subtotal	Total amount of the products	Amount (with currency unit)	500000 VND
4.	Shipping Fee	Shipping fee	Amount (with currency unit)	30000 VND
5.	Total	Total price of all products in cart	Positive integer	120,000

9. Postconditions

Order is placed successfully

Delivery information is recorded

Shipping fee is calculated

Order total is calculated

10. Special Requirements

- Shipping fee calculation must account for:

    o Weight-based charges

    o Location-based rates

    o Special discounts for orders over 1,000,000 VND

- Delivery information validation must check:

    o Valid email format

    o Valid phone number format

    o Complete address information

11. Business Rules

1. Rush Order Eligibility:

    o Only available in Ha Noi (TP)

    o Must meet minimum order requirements

2. Shipping Fee Rules:

    o Base fee for major cities: 22,000 VND

- Base fee for other locations: 30,000 VND

- Additional weight charges: 2,500 VND per 0.5kg

- Orders over 1,000,000 VND get 25,000 VND shipping discount

3. Validation Rules:

- Phone number must follow Vietnamese format

- Email must be valid format

- Address must include street, city, and province

- Name cannot be empty