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 |
| --- | --- | --- | --- | --- |
| 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 predefined list | Hanoi |
| 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