IT4490 – Software Design and Construction

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# USE-CASE “PLACE ORDER”

1. **Use case code**

UC001

1. **Brief description**

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

1. **Actors**
   1. Customer
   2. AIMS software
2. **Preconditions**

* There is at least one item in the cart

1. **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

1. **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 |

1. **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 |

1. **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 | * Comma for thousands separator * 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 media | * Comma for thousands separator * Positive integer * Right alignment | 246,000 |
| 5 | Subtotal | Total price of products | * 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 |  | * Comma for thousands separator | 2,346,000 |
| 7 | Transaction ID | Take information from VNPay message result | * Right alignment * Only alphabet uppercase and number character | VNPAY1234 |
| 8 | Transaction content | * No tone mark | Chuyen khoan mua hang |
| 9 | Transaction datetime | * Year/Month/Day | 2024/9/16 |

1. **Post-conditions**

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