

HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

School of Information and Communications Technology

# Software Requirement Specification

Version 1.1

## AIMS

Subject: Phân tích và thiết kế hệ thống

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*Hanoi*

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# Chapter 1

## Introduction

### 1.1 Objective

This document presents the detailed description for User management subsystem, user group and their usable function at run time. This document also describes the objectives and features of the system, interfaces and constraints of the system in response to external action. This document is for stakeholders and related software developers.

### 1.2 Scope

### 1.3 Glossary

### 1.4 References

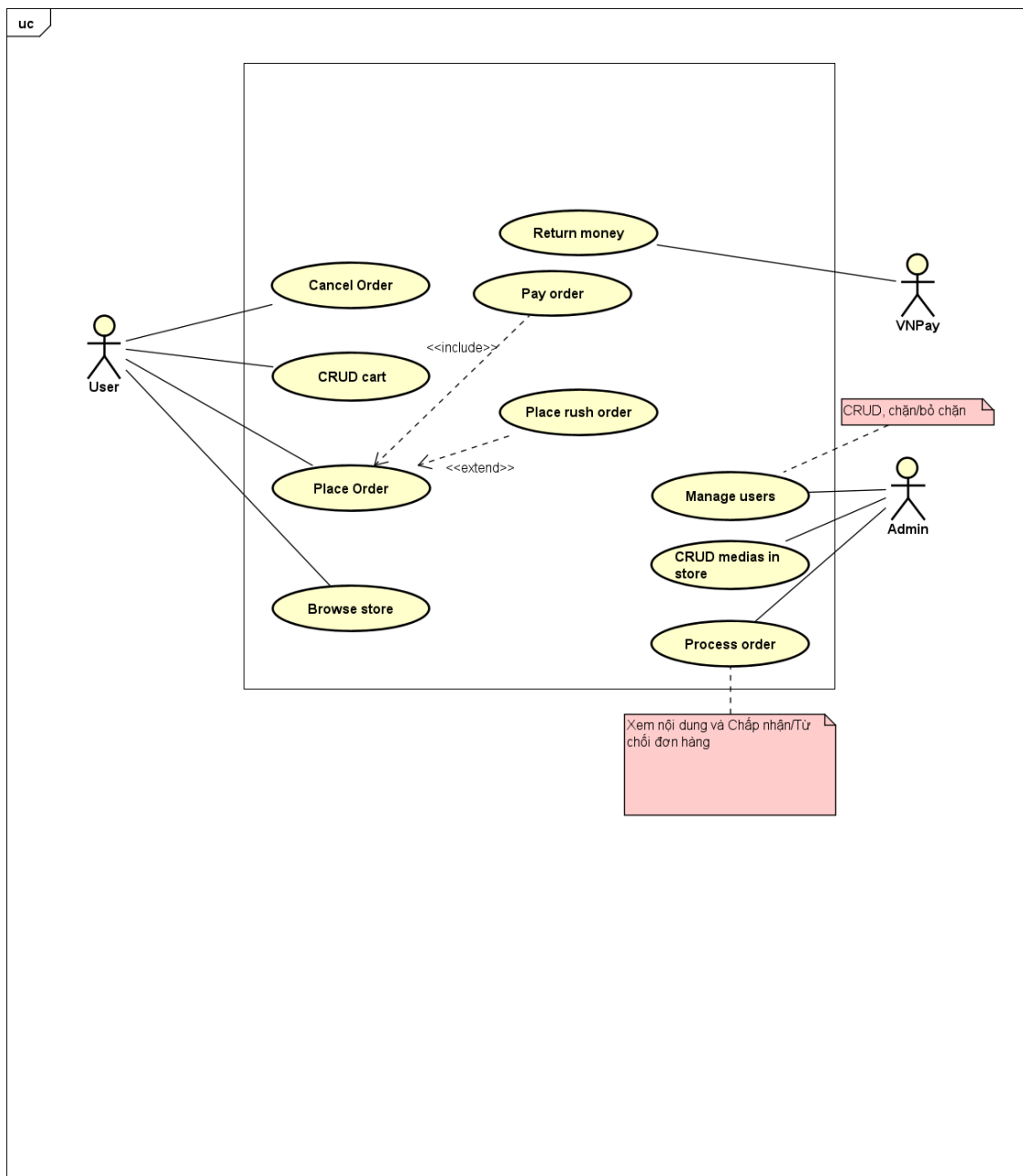
## Chapter 2

# Overall requirements

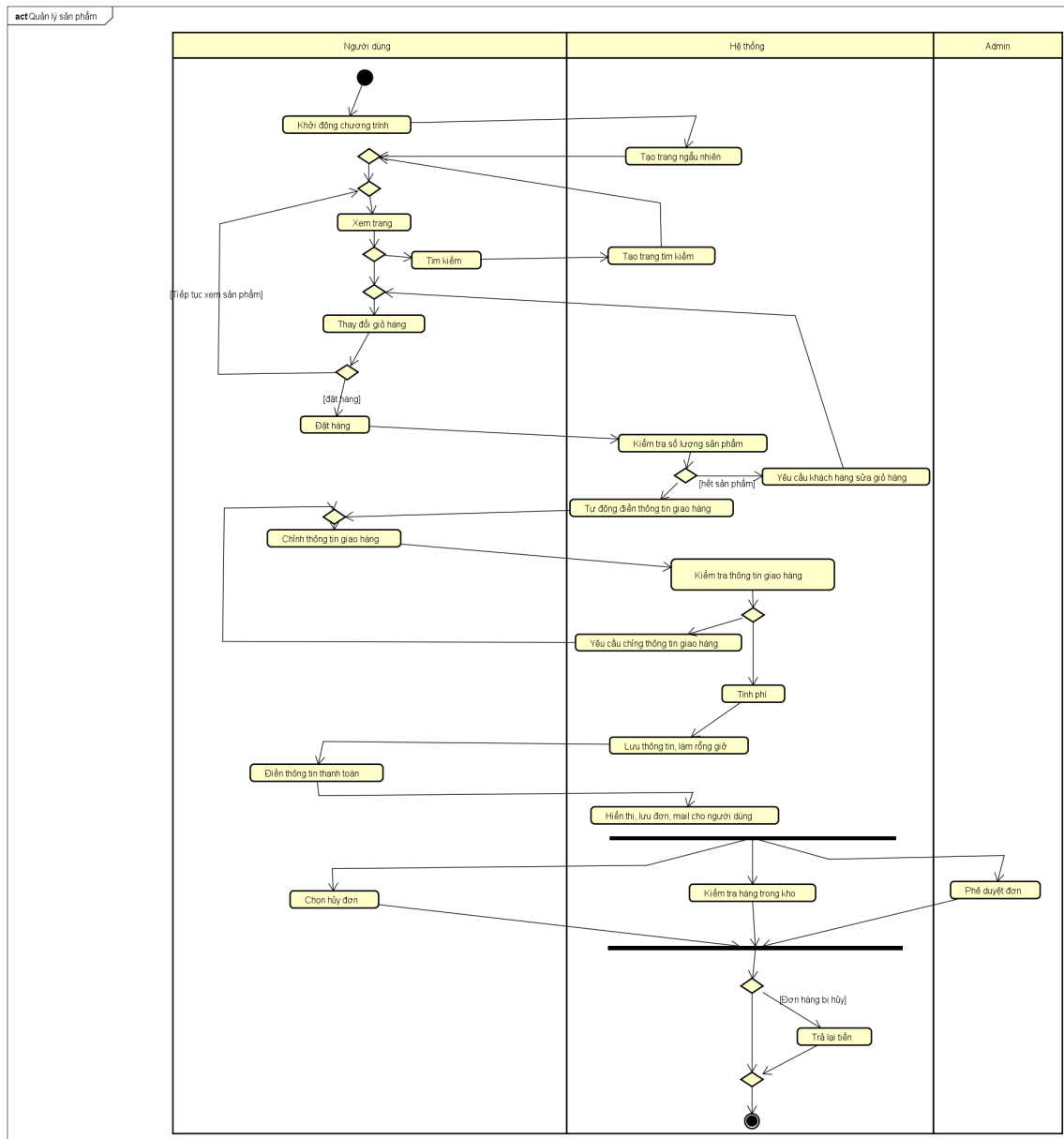
### 2.1 Actors

- Admin: Staffs who manage the store
- User: Clients who use buy the products
- VNPay: Paying port

## 2.2 General use case diagram



## 2.3 Business processes



# Chapter 3

## Detail requirements

Details of the use cases given in following sections are specified below.

### 3.1 Specification of Use case UC001 - “Place Order”

1. **Use case code**

UC001

2. **Brief Description**

UC “Place Order” describes the interaction between customers and AIMS software when the customer wishes to place order

3. **Actors**

- User

4. **Preconditions**

No

5. **Basic Flow of Events**

- The customer requests to place order in the cart
- The AIMS software checks the availability of products in the cart
- The AIMS software displays the form of delivery information
- The customer enters and submits delivery information
- The AIMS software calculates shipping fees
- The AIMS software displays the invoice
- The customer confirms to place order
- The AIMS software calls UC “Pay order”
- The AIMS software creates a new order
- The AIMS software makes the cart empty
- The AIMS software sends email about the order notification and information
- The AIMS software displays successful order notification and the order information

6. **Alternative flows**

**Table Alternative flows of events for UC Place order**

No	Location	Condition	Action	Resume location
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(a)	Step 2	If product is not available	<ul style="list-style-type: none"> <li>Notifies users then navigate them to “View Cart”</li> </ul>	End
(a)	Step 4	If the delivery info is invalid	<ul style="list-style-type: none"> <li>notifies that the delivery info is invalid (blank or wrong format)</li> </ul>	Step 3
(a)	Step 4	If the user chooses to place a rush order	<ul style="list-style-type: none"> <li>Navigate user to UC003</li> </ul>	Step 5
(a)	Step 8	If the order payment is not successful	<ul style="list-style-type: none"> <li>notifies that the payment is not successful</li> </ul>	Step 7

#### 7. Input data Table Input data of delivery information

No	Data fields	Description	Mandatory	Valid condition	Example
(a)	Receiver Name		Yes		Bui Hoang Tu
(a)	Phone Number		Yes	10 digits	0987 654 321
(a)	Province	Choose from list	Yes		Hanoi
(a)	Address		Yes		12/18 Dai Co Viet street, Hai Ba Trung district
(a)	Shipping instructions		No		Drive in for about 100m

#### 8. Output data Table B-Output data of displaying invoice

The first 4 rows are repeated for each product

No	Data fields	Description	Display format	Example
(a)	Title	Title of a media product		DVD Phim A
(a)	Price	Price of the corresponding media product	<ul style="list-style-type: none"> <li>Dot for thousands separator</li> <li>Right alignment</li> </ul>	10.000
(a)	Quantity	Quantity of the corresponding media	Right alignment	3
(a)	Amount	Total money of the corresponding media	<ul style="list-style-type: none"> <li>Dot for thousands separator</li> <li>Right alignment</li> </ul>	100.000



(a)	Subtotal Before VAT	Total price of products in the cart before VAT	<ul style="list-style-type: none"> <li>• Dot for thousands separator</li> <li>• Right alignment</li> </ul>	1.000.000
(a)	Subtotal	Total price of products in the cart with VAT		1.100.00
(a)	Shipping fees			37.000
(a)	Total	Sum of subtotal and shipping fees		1.137.00
(a)	Currency			VND
(a)	Name			Bui Hoang Tu
(a)	Phone number			0987654321
(a)	Province			Hanoi
(a)	Address			12/18 Dai Co Viet street, Hai Ba Trung district
(a)	Shipping instructions			Drive in for about 100m

### 3.2 Specification of Use case UC002 - “Pay order”

#### 1. Use case code

UC002

#### 2. Brief Description

This use case describes the interaction between users and the AIMS software and VNPay when the customer wishes to pay his/her order.

#### 3. Actors

- User
- VNPay

#### 4. Preconditions

The AIMS software has calculated the total amount of money which the customer has to pay.

#### 5. Basic Flow of Events

- The AIMS software displays the payment screen
- The customer enters credit card info and confirms to pay order
- The AIMS software asks the Interbank to process the payment transaction
- The Interbank processes the payment transaction
- The AIMS software saves the payment transaction
- The AIMS software displays transaction information
- The AIMS software sends e-mail to the customer

#### 6. Alternative flows Table N-Alternative flows of events for UC Place order

No	Location	Condition	Action	Resume location
(a)	At Step 3	If the card info is in invalid	<ul style="list-style-type: none"> <li>The AIMS software notifies that the card info is invalid</li> </ul>	At Step 1
(a)	At Step 4	If the card info is wrong	<ul style="list-style-type: none"> <li>The AIMS software notifies that the card info is wrong</li> </ul>	At Step 1
(a)	At Step 4	If the balance is not enough	<ul style="list-style-type: none"> <li>The AIMS software notifies that the balance is not enough</li> </ul>	At Step 1

#### 7. Input data Table Input data of credit card information

No	Data fields	Description	Mandatory	Valid condition	Example
(a)	Card holder name		Yes	Maximum of 50 characters, all in uppercase	BUI HOANG TU
2.	Card number		Yes	16 digits	0123 4567 8912 3456
3.	Expiration date		Yes	Consist of month and last 2 digits of year only	01/23
4.	Security code		Yes	3 digits	221

#### 8. Output data Table B-Output data of ...

No	Data fields	Description	Display format	Example
(a)	Transaction ID			
(a)	Card holder name			BUI HOANG TU
(a)	Amount	Amount of money has been subtracted from your account	<ul style="list-style-type: none"> <li>Right alignment</li> <li>With Vietnamese currency (VND)</li> <li>Vietnam locale</li> </ul>	12.000VND
(a)	Transaction Content			
(a)	Balance	New balance after this transaction	<ul style="list-style-type: none"> <li>Right alignment</li> <li>With Vietnamese currency (VND)</li> <li>Vietnam locale</li> </ul>	2.300.123VND

(a)	Transaction Date		dd/mm/yyyy	12/08/2002
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### 3.3 Specification of Use case UC003 - “Place rush order”

1. **Use case code**

UC003

2. **Brief Description**

This use case describes the interaction between users and the AIMS software and VNPay when the customer wishes to have fast delivery.

3. **Actors**

- (a) User
- (b) VNPay

4. **Preconditions**

User choose to have fast delivery from UC001

5. **Basic Flow of Events**

- (a) Users put in their address
- (b) The AIMS software checks the availability of service in address and items
- (c) AIMS asks for rush order information
- (d) User fills in rush information
- (e) Return to UC001

6. **Alternative flows Table Alternative flows of events for UC Place order**

No	Location	Condition	Action	Resume location
(a)	Step 2	If address is not supported or no item support rush order	<ul style="list-style-type: none"> <li>• Notifies the error in address or no supported item</li> </ul>	Step 1

7. **Input data Table Input data of delivery information**

No	Data fields	Description	Mandatory	Valid condition	Example
(a)	Extra Address		Yes		12/18 Dai Co Viet street, Hai Ba Trung district
(a)	Shipping instructions		No		Drive in for about 100m
(a)	Receive time		Yes	hh:mm	13:34

8. **Output data**

9. **Post Condition**

# Chapter 4

## Supplementary specification

*<Presenting other requirements if necessary, including non-functional requirements such as performance, reliability, usability, and supportability; or other technical requirements such as database system, used technology...>*

### 4.1 Functionality

<List of the functional requirements that are general to many use cases. E.g. Among the flow of events of use case, in all the steps that interacts with the database system, if there are errors in the connection or operation processes, there need to be a corresponding error notifications so that the actor knows that the error is related to the database system rather than the user>

### 4.2 Usability

<Requirements that relate to, or affect, the usability of the software. Examples include ease-of-use requirements or training requirements that specify how readily the software can be used by its actors>

### 4.3 Reliability

<Any requirements concerning the reliability of the software. Quantitative measures such as mean time between failure or defects per thousand lines of code should be stated>

### 4.4 Performance

<The performance characteristics of the software. Include specific response times. Reference related use cases by name>

### 4.5 Maintainability

<Any requirements that will enhance the supportability or maintainability of the software being built>

### 4.6 Design Constraints

<Any design constraints on the software being built>