

HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

School of Information and Communications Technology

Software Requirement Specification

Version 1.1

AIMS Project

Subject: Software Design and Construction

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20200528

Github repo link:

<https://github.com/sonhtx/TKXDPM.KHMT.20231-20200528.HoangTranXuanSon>

Hanoi, October, 2023

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- **Introduction**

- ***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.

- ***Scope***

AIMS Project is a desktop app working 24/7 like an e-commerce service like Amazon but only supports products which are books, DVD, CD and LP record.

- ***Glossary***

Users just need to have basic experience on using a computer

- ***References***

<Listing the referenced material used in this documents, including the one related to the project>

- **Overall requirements**

- ***Actors***

Customer: main user of the AIMS software, interact with “Place order”, “Place rush order” and “Pay order” directly.

- ***General use case diagram***

Users can interact with products list with some operations like search, sort, besides CRUD their cart, place order (with option of place rush order), pay the bill.

Administrators have their own power to control users info.

Lower-level use case diagrams

There are 4 lower-level use case diagrams of the general diagrams, which is place inside Use case Diagrams as the template has mentioned.

- ***Business processes***

- **Detail requirements**

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

- ***Specification of Use case UC001 - “Place order”***

- **Use case code**

UC001

- **Brief Description**

This use case describes the process in which Customer can place their order.

- **Actors**

Customer

- **Preconditions**

Customer select their desire items from their cart to place order

- **Basic Flow of Events**

Step 1. Customer select items from their cart to place order

Step 2. The AIMS software check for valid order

Step 3. The AIMS software displays the form of delivery information

Step 4. Customer enters their delivery info

Step 5. The AIMS software calculates shipping fees

Step 6. The AIMS software displays the invoice

Step 7. The AIMS software calls UC “Pay order” (from below)

Step 8. The AIMS software sends email about the order

- **Alternative flows**

Table Alternative flows of events for UC Place order

No	Location	Condition	Action	Resume location
1.	At Step 2	If the products are not available	AIMS notifies that the products are not available and come back to the use case “View cart”	End use case

2.	At Step 4	If the delivery info is invalid	AIMS notifies that the delivery info is invalid	At step 2
3.	At Step 4	If the user chooses to place a rush order	The AIMS software inserts use case “Place rush order” (from below use case)	At step 5
4.	At Step 7	If the order payment is not successful	AIMS notifies that the payment is not successful	At step 6

- **Input data**

Table A-Input data of ...

No	Data fields	Description	Mandatory	Valid condition	Example
•					

Specification of Use case UC002 - “Pay order”

- **Use case code**

UC002

- **Brief Description**

This use case describes the process in which Customer can pay their order.

- **Actors**

Customer, VNPay

- **Preconditions**

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

- **Basic Flow of Events**

Step 1. The AIMS software direct customer to VNPay website

Step 2. The customer chooses pay method support by VNPay

Step 3. Customer enters information required to make a payment

Step 4. The VNPay processes the payment transaction

Step 5. The AIMS software displays transaction information

- **Alternative flows**

Table Alternative flows of events for UC Pay order

No	Location	Condition	Action	Resume location
1.	At Step 3	If the info is invalid	<ul style="list-style-type: none">• The AIMS software notifies that the info is invalid	At Step 1
2.	At Step 4	If the balance is not enough	<ul style="list-style-type: none">• VNPay notifies that the balance is not enough	At Step 1

- **Input data**

Table A-Input data of payment form is shown as follows.

No	Data fields	Description	Mandatory	Valid condition	Example
1.					
2.					
3.					
4.					

Specification of Use case UC003 - “Place rush order”

- **Use case code**

UC003

- **Brief Description**

This use case describes the process in which Customer can place a rush order

- **Actors**

Customer

- **Preconditions**

The AIMS software has already accepted information about a normal place order

- **Basic Flow of Events**

Step 1. Customer choose to place rush order from place order

Step 2. The AIMS software check if delivery address support the place rush order

Step 3. The AIMS software asks customers to specify time to receive order

Step 4. The AIMS software displays place rush order info

Alternative flows

Table Alternative flows of events for UC Pay order

No	Location	Condition	Action	Resume location
1.	At Step 2	If the no product support place rush order or delivery address doesn't support place rush order	<ul style="list-style-type: none">• The AIMS software asks customer to update their delivery info	At Step 1

- **Input data**

Table A-Input data of payment form is shown as follows.

No	Data fields	Description	Mandatory	Valid condition	Example
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1.					
2.					
3.					
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...>

- **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>

- **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>

- **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>

- **Performance**

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

- **Maintainability**

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

- **Design Constraints**

<Any design constraints on the software being built>