HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

School of Information and Communications Technology

Software Requirement Specification

Version 1.1

AIMS CASE STUDY

Subject: SOFTWARE DESIGN AND BUILD

<Group Number>

<List of participants>

*Hanoi,* *<month, year>*

*<All notations inside the angle bracket are not part of this document, for its purpose is for extra instruction. When using this document, please erase all these notations and/or replace them with corresponding content as instructed. >*

*<This document, written by Prof. NGUYEN Thi Thu Trang, is used as a case study for student with related courses. Any modifications and/or utilization without the consent of the author is strictly forbidden>*

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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

<Describe the problem statement here>

## Glossary

*<Listing and explaining the terms appearing in the software’s profession and this documents. Any assumption of the reader’s prior knowledge or experience on the subject is ill advised>*

## References

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

# Overall requirements

## Actors

System has three main actors. They are general user, system administrator and VNPay online banking service.

General user are customers, having demand on physical goods like CD, Books, … General user interact with system through application interface, searching and placing order of goods.

System administrator are administrators from the service provider of the selling company. The main functionality of system administrator are managing product catalogs and administration incoming order from General User

VNPay online banking service provide service for system to handle payment tranactions from user and some utility service for best user experience like display information of company bank accounts verify user bank account, list of supported banks.

## General use case diagram

General user proceed to buy goods using four usecase: Searching the product catalog, cart item management, invoice management and placing order.

Cart management implemented using view cart and changing cart information usecase

Invoice management implemented using my invoice, view invoice and cancel invoice usecase

System administrator proceed to manage product catalog using find, view, change, create, delete information of a specific product, with a limited ability to change selling price.

System administrator proceed to administration incoming order buy accept or deny order from user which are required to complete buying process of buying user.

VNPay system participate in the usecase paying order as online baking service which are included when user placing a order.

A diagram of a person with text

Description automatically generated

## Lower-level use case diagrams

Since the general usecase has enough detail, there are no lower-level usecase diagrams.

## Business processes

The main business processes for illustrating the system are General search and buying the product then administrator accept or deny the invoice.

A diagram of a diagram

Description automatically generated with medium confidence

# Detail requirements

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

## Specification of Use case UC001 - “<Use case 1 name>”

1. **Use case code**

UC001

1. **Brief Description**

This use case describes the interaction between <actor(s)> and <name\_of\_the\_system> when <actor(s)> wish(es) to ...

1. **Actors**

<List of actors here>

1. **Preconditions**
2. **Basic Flow of Events**
3. The actor(s) …

i. The software displays … (see Table T).

1. **Alternative flows**

Table N-Alternative flows of events for UC Place order

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Condition** | **Action** | **Resume location** |
|  | At Step S | If … | * Action 1 | Resumes at Step Q |
|  | At Step O | If … | * Action 2 | Use case ends |

1. **Input data**

Table A-Input data of …

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data fields** | **Description** | **Mandatory** | **Valid condition** | **Example** |
|  |  |  |  |  |  |

1. **Output data**

Table B-Output data of …

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Data fields** | **Description** | **Display format** | **Example** |
|  |  |  |  |  |

1. **Postconditions**

## Specification of Use case UC002 - “<Use case 2 name>”

1. **Use case code**

UC002

1. **Brief Description**

This use case describes the interaction between <actor(s)> and <name\_of\_the\_system> when <actor(s)> wish(es) to ...

1. **Actors**

<List of actors here>

1. **Preconditions**
2. **Basic Flow of Events**
3. The actor(s) …

i. The software displays … (see Table T).

1. **Alternative flows**

Table N-Alternative flows of events for UC Place order

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Condition** | **Action** | **Resume location** |
|  | At Step S | If … | * Action 1 | Resumes at Step Q |
|  | At Step O | If … | * Action 2 | Use case ends |

1. **Input data**

Table A-Input data of …

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data fields** | **Description** | **Mandatory** | **Valid condition** | **Example** |
|  |  |  |  |  |  |

1. **Output data**

Table B-Output data of …

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Data fields** | **Description** | **Display format** | **Example** |
|  |  |  |  |  |

1. **Postconditions**

# 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>