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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Github repo link: <https://github.com/sonhtx/TKXDPM.KHMT.20231-20>

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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***

Product Manager: interact with AIMS Software to create, update and delete products.

* ***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.

Product Manger have their own power to manage product lists of the entire AIMS Software.

***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 UCS00 - “Add product”***
* **Use case code**

UCS00

* **Brief Description**

This use case describes the process in which the Product Manager can add a single product to AIMS Software.

* **Actors**

Product Manager

* **Preconditions**

The product manager requires to add a product.

* **Basic Flow of Events**

Step 1. The product manager requires to add a product

Step 2. The product manager provide the product information

Step 3. The AIMS software checks if the new product meets the requirements

Step 4. The AIMS software adds the product to Product List

Step 5. The AIMS software saves the add information

* **Alternative flows**

**Table Alternative flows of events for UC Add product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Condition** | **Action** | **Resume location** |
| 1. | At Step 3 | If the products details don’t meet the requirements | AIMS notifies that the products details don’t meet the requirement | At step 2 |

* **Input data**

**Table A-Input data of product details**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data fields** | **Description** | **Mandatory** | **Valid condition** | **Example** |
|  | Title |  | Yes |  | “Design Pattern” Book |
|  | Category |  | Yes | Equals “Book”, “CD”, “LP”, or “DVD” | Book |
|  | Value | Valuation of product | Yes | Vietnamese currency | 100000 VND |
|  | Price | Amount of money customer has to pay (not include VAT) | Yes | Vietnamese currency | 90000 VND |

***Specification of Use case UCS01 - “Delete product”***

* **Use case code**

UCS01

* **Brief Description**

This use case describes the process in which the product manager can delete some products (maximum of 10).

* **Actors**

Product Manager

* **Preconditions**

The product manager requires to delete some products.

**Basic Flow of Events**

Step 1. The product manager requires to delete some products

Step 2. The AIMS software delete all the chosen products from Product List

Step 3. The AIMS software saves the delete information

* **Alternative flows**

**Table Alternative flows of events for UC Delete product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Condition** | **Action** | **Resume location** |
| 1. | At Step 2 | If number of chosen products doesn’t meet the requirements | * The AIMS software notifies that the action is declined | Use case ends |

***Specification of Use case UCS02 - “Update product”***

* **Use case code**

UCS02

* **Brief Description**

This use case describes the process in which the Product Manager can update a specific product

* **Actors**

Product Manager

* **Preconditions**

The product manager requires to update a specific product

**Basic Flow of Events**

Step 1. The product manager requires to update a specific product

Step 2. The product manager update details of chosen product

Step 3. The AIMS software checks if the new details meets the requirements

Step 4. The AIMS software saves the update information

**Alternative flows**

**Table Alternative flows of events for UC Update product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Location** | **Condition** | **Action** | **Resume location** |
| 1. | At Step 3 | If the products details don’t meet the requirements | * AIMS notifies that the products details don’t meet the requirement | At Step 2 |

* **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 UCS03 - “View product”***

* **Use case code**

UCS03

* **Brief Description**

This use case describes the process in which the Product Manager can view details of a specific product

* **Actors**

Product Manager

* **Preconditions**

The product manager requires to view details of a specific product

**Basic Flow of Events**

Step 1. The product manager requires to view details of a specific product

Step 3. The AIMS software shows the product details

**Alternative flows**

**No**

* **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>