HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

School of Information and communications technology

Software Requirement Specification

Version 1.2

AIMS: An Internet Media Store

Subject: ITSS Software Development

<Group 10>

Vũ Thị Quỳnh Như – 20215110

Vũ Minh Đức – 20225705

Hoàng Thái Dương – 20225821

Đặng Đức Tài - 20225667

Table of contents

Table of contents 1

1 Introduction 2

1.1 Objective 2

1.2 Scope 2

1.3 Glossary 2

1.4 References 3

2 Overall Description 4

2.1 Survey 4

2.2 Overall requirements 4

2.3 Business process 4

3 Detailed Requirements 5

3.1 Use case 1 6

3.2 Use case 2 7

4 Supplementary specification 8

4.1 Functionality 8

4.2 Usability 8

4.3 Reliability 8

4.4 Performance 8

4.5 Supportability 8

4.6 Other requirements 8

# Introduction

*<The following subsections of the Software Requirements Specifications (SRS) document should provide an overview of the entire SRS. The thing to keep in mind as you write this document is that you are telling what the system must do – so that designers can ultimately build it. Do not use this document for design!!!>*

## Objective

<*Identify the purpose of this SRS and its intended audience. In this subsection, describe the purpose of the particular SRS and specify the intended audience for the SRS*>

## Scope

<*In this subsection:*

1. *Identify the software product(s) to be produced by name*
2. *Explain what the software product(s) will, and, if necessary, will not do*
3. *Describe the application of the software being specified, including relevant benefits, objectives, and goals*
4. *Be consistent with similar statements in higher-level specifications if they exist*

*This should be an executive-level summary. Do not enumerate the whole requirements list 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>*

| ***No*** | ***Term*** | ***Explanation*** | ***Example*** | ***Note*** |
| --- | --- | --- | --- | --- |
| 1 | token | A piece of data created by server, and contains the user's information, as well as a special token code that user can pass to the server with every method that supports authentication, instead of passing a username and password directly. | JSON Web Token (JWT) | Compact, URL-safe and usable especially in web browser single sign-on (SSO) context. |
| 2 | … |  |  |  |

## References

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

# Overall Description

< *Describe the general factors that affect the product and its requirements. This section does not state specific requirements. Instead, it provides a background for those requirements, which are defined in section 3, and makes them easier to understand*. *In a sense, this section tells the requirements in plain English for the consumption of the customer. Section 3 will contain a specification written for the developers*>

## Survey

*<Software overall description. List of actors and descriptions>*

## Overall requirements

*<Use case diagram(s)>*

## Business process

*<Sequence of use cases, e.g. Use case 1 then use case 2, if a condition matched, do the use case 3… You should visualize the process with activity diagrams>*

# Detailed Requirements

<*This section contains all the software requirements at a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements. Throughout this section, every stated requirement should be externally perceivable by users, operators, or other external systems. These requirements should include at a minimum a description of every input (stimulus) into the system, every output (response) from the system and all functions performed by the system in response to an input or in support of an output. The following principles apply:*

1. *Specific requirements should be stated with all the characteristics of a good SRS*
2. *correct*
3. *unambiguous*
4. *complete*
5. *consistent*
6. *ranked for importance and/or stability*
7. *verifiable*
8. *modifiable*
9. *traceable*
10. *Specific requirements should be cross-referenced to earlier documents that relate*
11. *All requirements should be uniquely identifiable (usually via numbering like 3.1.2.3)*
12. *Careful attention should be given to organizing the requirements to maximize readability (Several alternative organizations are given at end of document)*

*Before examining specific ways of organizing the requirements it is helpful to understand the various items that comprise requirements as described in the following subclasses. This section reiterates section 2, but is for developers not the customer. The customer buys in with section 2, the designers use section 3 to design and build the actual application.*

*Remember this is not design. Do not require specific software packages, etc unless the customer specifically requires them. Avoid over-constraining your design. Use proper terminology:*

*The system shall… A required, must have feature*

*The system should… A desired feature, but may be deferred til later*

*The system may… An optional, nice-to-have feature that may never make it to implementation.*

*Each requirement should be uniquely identified for traceability. Usually, they are numbered 3.1, 3.1.1, 3.1.2.1 etc. Each requirement should also be testable. Avoid imprecise statements like, “The system shall be easy to use” Well no kidding, what does that mean? Avoid “motherhood and apple pie” type statements, “The system shall be developed using good software engineering practice”*

*Avoid examples, this is a specification, a designer should be able to read this spec and build the system without bothering the customer again. Don’t say things like, “The system shall accept configuration information such as name and address”. The designer doesn’t know if that is the only two data elements or if there are 200. List every piece of information that is required so the designers can build the right UI and data tables*>

## Use case ADD Product – Product Manager

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Use Case “Add Product”**   1. **Use case code**   UC00X   1. **Brief Description**   Use case này mô tả các Product Manager tương tác với Software để thêm một sản phẩm mới vào Store. Product nhập thông tin chi tiết của sản phẩm và Software sẽ xử ý yêu cầu, kiểm tra dữ liệu hợp lệ trước khi lưu vào CSDL   1. **Actors**    1. **Product Manager** 2. **Preconditions**   Product Manager đã đăng nhập vào hệ thống và có quyền thêm sản phẩm mới   1. **Basic Flow of Events** 2. Product Manager gửi yêu cầu muốn Add product 3. Software hiển thị biểu mẫu nhập thông tin sản phẩm 4. Product Manager nhập các thông tin về title, category, value, current price, barcode, Product description, Quantity, Warehouse entry date, Product dimensions, Weight 5. Software kiểm tra tính đúng đắn của các thông tin title, category, value, current price, barcode, Product description, Quantity, Warehouse entry date, Product dimensions, Weight 6. Tùy theo Category Product Manager nhập Software sẽ hiển thi các thông tin cần cung cấp theo Category đó 7. Product Manager nhập các thông tin bổ sung cho sản phẩm muốn thêm theo Category 8. Software kiểm tra tính đúng đắn của các thông tin bổ sung cho sản phẩm 9. Product Manager xác nhận thêm sản phẩm 10. Software gửi thông báo thêm sản phẩm thành công 11. Lưu thông tin sản phẩm vào CSDL của cửa hàng 12. **Alternative flows**   Table N-Alternative flows of events for UC Place order   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **No** | **Location** | **Condition** | **Action** | **Resume location** | |  | At Step 4 | Nếu dữ liệu nhập không hợp lệ | * Hiển thị thông báo lỗi, yêu cầu sửa lại thông tin lỗi | Quay lại bước 2 | |  | At Step 6 | Nếu dữ liệu nhập không hợp lệ | * Hiển thị thông báo lỗi, yêu cầu sửa lại thông tin lỗi | Quay lại bước 5 | |  | ở tất cả các step | Nếu product manager yêu cầu kết thúc quá trình thêm | * Hiển thị thông báo thêm sản phẩm thất bại | Kết thúc usecase |  1. **Input data**   Table A-Input data of Add Product   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **No** | **Data fields** | **Description** | **Mandatory** | **Valid condition** | **Example** | |  | Title | Tiêu đề sản phẩm | Yes | Không trống | “abc” | |  | Category | Loại sản phẩm (Book, CDs, LP, DVDs) | Yes | Chọn 1 trong các giá trị Book, CDs, LP, DVDs | “Book” | |  | Value | Giá trị sản phẩm | Yes | Số dương | 100.12 | |  | Current Price | Giá bản hiện tại | Yes | Số dương | 100.13 | |  | Barcode | Mã sản phẩm | Yes | Không trùng với các barcode khác | Book1, CDs1… | |  | Product description | Mô tả sản phẩm | Yes | Không trống | new, used, primary color, condition for return | |  | Quantity | Số lượng sản phẩm | Yes | Số nguyên dương | 10 | |  | Warehouse entry date | Ngày nhập kho | Yes | Định dạng hợp lệ (YYYY-MM-DD) | “2025-10-01” | |  | Product dimensions | Kích thước sản phẩm | Yes | Không rỗng | “20 \*10 \*2 (cm)” | |  | Weitght | Trọng lượng sản phẩm | Yes | Số dương | 0.21 kg | |  | Authors | Book – Tác giả | Yes | Không rỗng |  | |  | Cover type | Book – Loại bìa (paperback, hardcover) | Yes | Chọn 1 trong paperback, hardcover | Paper back | |  | Publisher | Book – nhà xuất bản | Yes | Không rỗng | x | |  | Pubblication date | Book – Ngày xuất bản | Yes | Định dạng hợp lệ (YYYY-MM-DD) | “2025-10-01” | |  | Number of pages | Book – số trang | No | Số nguyên dương | 12 | |  | Language | Book – ngôn ngữ | No | Không rỗng | English | |  | Genre | Book,DVD – Thể loại | No | Không rỗng | Romatic | |  | Artists | CDs, LP – Nghệ sĩ | Yes | Không rỗng | BSA | |  | Record label | CDs, LP – hãng thu âm | Yes | Không rỗng | JS | |  | Tracklist | CDs, LP – danh sách bài hát | Yes | Không rỗng | A-B-C | |  | Genre | CDs, LP – thể loại | Yes | Không rỗng | Horor | |  | Release date | CDs, LP, DVD – ngày phát hành | No | Định dạng hợp lệ (YYYY-MM-DD) | “2025-10-01” | |  | Disc type | DVD – loại đĩa (Blu-ray, HD-DVD) | Yes | Chọn 1 trong Blu-ray, HD- DVD | Blu-ray | |  | Director | DVD - Đạo diễn | Yes | Không rỗng | abc | |  | Runtime | DVD - Thời gian chạy | Yes | Số dương (phút) | 0.12 | |  | Studio | DVD - Phòng thu | Yes | Không rỗng | xyz | |  | Language | DVD – ngôn ngữ | Yes | Không rỗng | English | |  | Subtitles | DVD – phụ đề | Yes | Không rỗng | Vietnamese |  1. **Output data**   Table B-Output data of Add Product   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **No** | **Data fields** | **Description** | **Display format** | **Example** | |  | Success Notification | Thông báo khi thêm sản phẩm thành công | Text | Thêm sản phẩm thàng công | |  | Failure Notification | Thông báo khi thêm sản phẩm thất bại | Text | Thêm sản phẩm thất bại | |  | Error Notification | Thông báo nếu dữ liệu thêm không hợp lệ | Text | Barcode đã tồn tại trong kho |  1. **Postconditions**  * Nếu dữ liệu hợp lệ, sản phẩm được lưu vào hệ thống và có thể xem trong danh sách sản phẩm. * Nếu dữ liệu không hợp lệ, hệ thống sẽ yêu cầu sửa đổi trước khi lưu. * Nếu xảy ra lỗi hệ thống, sản phẩm không được lưu và Product Manager cần thử lại sau. |

1. **Activity Diagram**

**A screenshot of a computer

AI-generated content may be incorrect.**

## Use case 2

<Use case specification of use case 2>

# 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

*<Functional requirements that are general to many use cases>*

## Usability

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

## Reliability

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

## Performance

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

## Supportability

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

## Other requirements

*<Descriptions of other requirements are located here>*