
Software Requirements Specification

Project: Natulove Online Solutions

Document information

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1 Introduction

This Software Requirements Specification (SRS) corresponds to the information system for process management and inventory control of a website dedicated to the sale of natural



products, souvenirs and nuts. This specification has been prepared following the guidelines of the IEEE standard Recommended Practice for Software Requirements Specifications

1.1 Purpose

The purpose of this document is to define the functional and non-functional specifications for the development of a web information system that will allow the management of different administrative and sales processes of the Natulove online store. This system will be designed to be used by administrative and customer service staff, optimizing inventory management, orders and interaction with customers.

1.2 Project scope

The scope of this Software Requirements specification focuses on providing a detailed description of Natulove's web-based information system, aimed at improving the management of key administrative processes, including inventory, orders, promotions, and customer service. The system will facilitate product management, order tracking, and the planning of major events, optimizing internal operations and communication with customers. In addition, the platform will support the visualization of statistics and reports for strategic decision making, in order to automate essential processes and increase Natulove's competitiveness in the e-commerce market.

1.3 Personnel involved

Name	Role	Professional Category	Responsibility	Contact Information
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Alejandro Lopez	Stakeholder		Natulove's customer	



1.4 Definitions, acronyms and abbreviations

Name	Description
User	Person who will use the system to manage processes
SIS-I	Information system for process management and inventory control
ERS	Software Requirements Specification
RF	Functional Requirement
RNF	Non-functional requirement
FTP	File Transfer Protocol
Moodle	Virtual Classroom

1.5 References

Título del Documento	Referencia
Standard IEEE 830 - 1998	IEEE

1.6 Summary

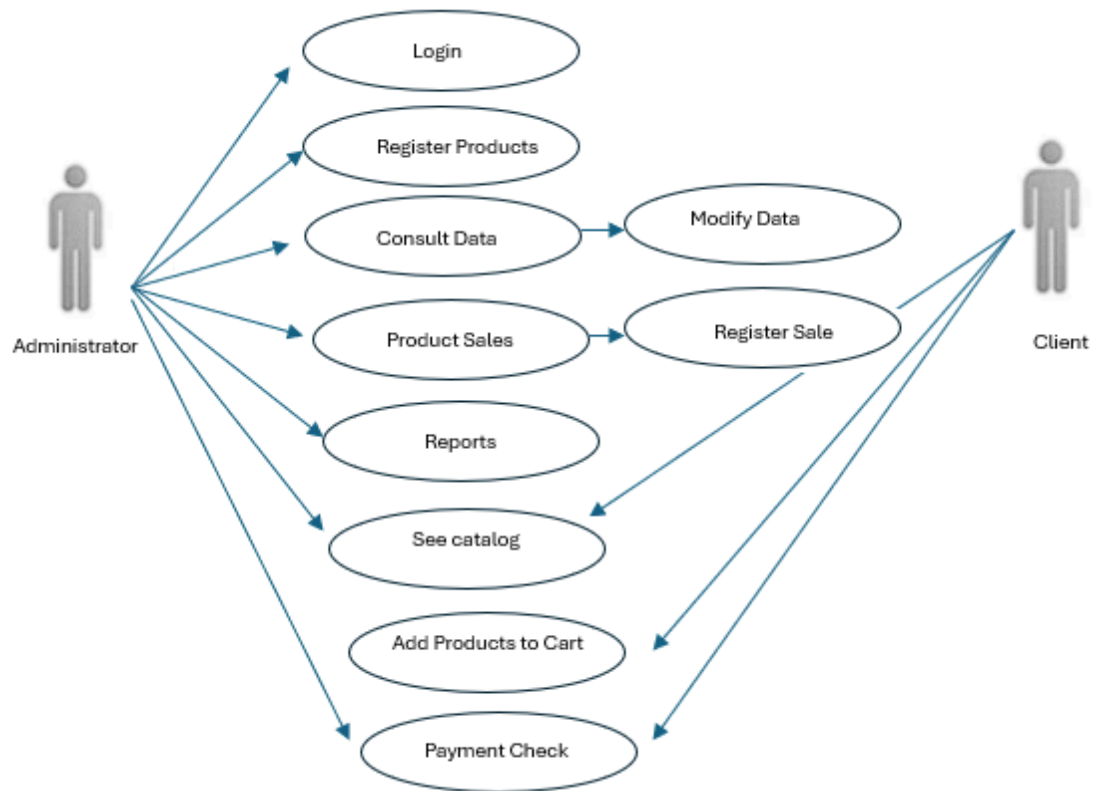
This document is structured in three main sections. The first section provides a general introduction that offers an overview of the web information system requirements specification for Natulove. The second section describes in detail the proposed system, including its main functionalities, relevant data, as well as the factors, constraints, assumptions and dependencies that affect its development, without going into excessive detail. The third and final section focuses on fully defining the specific requirements that the system must meet, addressing each element necessary to ensure a successful implementation that meets the expectations and needs of the project.

2 Overview

2.1 Overview

Natulove's information system will be a product designed to operate in web environments, allowing for rapid and efficient use. The platform will be geared toward optimizing inventory management, orders, and customer service, facilitating interaction for both administrative staff and end users. By implementing this system, Natulove will be able to expand its online presence, improve operations monitoring, and increase overall efficiency, adapting to the growing demands of e-commerce and strengthening its competitiveness in the market.

2.2 Product Functionality



2.3 User characteristics

User type	Administrator
Training	Third level title
Activities	Control and management of the system in general

User type	Client
Training	Bachelor



Activities	Make the purchase of the products, and register your data to make the payment
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2.4 Restrictions

- Natulove's web information system must comply with current data protection regulations to ensure the security and privacy of customer information. It must be accessible from both mobile and desktop devices to ensure an optimal user experience on any platform. In addition, the system must be integrated with secure payment gateways that allow for reliable transactions, protecting users' financial information and complying with e-commerce security standards.

2.5 Assumptions and dependencies

- Natulove's customers and staff are expected to have access to the internet to use the web platform effectively. In addition, users are expected to be familiar with the basic use of online applications. The system depends on the availability of a reliable web server, a relational database to manage product, order and customer information, and payment gateway services that ensure secure and seamless transactions. The stability and performance of the system will be conditioned by the capacity and maintenance of these technological elements.

3 Specific Requirements

Functional Requirements

Requirement Identification:	RF01
Requirement Name:	Login.
Characteristics:	The system will provide secure login functionality for administrators.
Requirement Description:	Secure login: The system must allow users to securely log in with a username and password.
Non-Functional Requirement:	NFR01: Passwords must be encrypted.
Priority of the Requirement: High	

Requirement Identification:	RF02
Requirement Name:	Register Products
Characteristics:	The system will allow administrators to register new products with details like name, description, price, and category.
Requirement Description:	Product registration: The system must enable the administrator to add new products with necessary details.



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Non-Functional Requirement:	NFR02: Data should be stored securely and quickly accessible.
Priority of the Requirement: High	

Requirement Identification:	RF03
Requirement Name:	Modify Data
Characteristics:	The system will allow administrators to modify information such as address, phone number, and payment methods.
Requirement Description:	Information modification: Administrators must be able to update details about the products.
Non-Functional Requirement:	RNF03: Changes should reflect in under 1 second across the system.
Priority of the Requirement: High	

Requirement Identification:	RF04
Requirement Name:	Product Sales
Characteristics:	The system will enable administrators to handle product sales and generate corresponding records.
Requirement Description:	Sales processing: The administrator should have the ability to process product sales.
Non-Functional Requirement:	RNF04: Sale transactions should be completed within 5 seconds.
Priority of the Requirement: High	

Requirement Identification:	RF05
Requirement Name:	Generate Reports
Characteristics:	The system will allow administrators to generate reports of system activities, including sales, inventory, and clients.
Requirement Description:	Reporting: Administrators must be able to generate detailed reports on various system metrics.
Non-Functional Requirement:	RNF05: Reports should be generated in less than 10 seconds.
Priority of the Requirement: High	

Requirement Identification:	RF06
Requirement Name:	View Catalog
Characteristics:	The system will provide catalog viewing functionality for both clients and administrators.
Requirement Description:	Catalog viewing: Users (clients and administrators) should be able to browse the available products in the system.
Non-Functional Requirement:	RNF06: Catalog loading time should be less than 3 seconds.
Priority of the Requirement: High	



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Requirement Identification:	RF07
Requirement Name:	Add to Cart
Characteristics:	The system will allow clients to add products to a shopping cart before proceeding to checkout.
Requirement Description:	Shopping cart: Clients should be able to add items to a cart for checkout.
Non-Functional Requirement:	RNF07: Items should be added to the cart in less than 1 second.
Priority of the Requirement: High	

Requirement Identification:	RF08
Requirement Name:	Payment Verification
Characteristics:	The system will perform payment verification to ensure transaction validity and confirmation.
Requirement Description:	Payment verification: The system must check and confirm payment transactions.
Non-Functional Requirement:	RNF08: Payment verification should complete within 3 seconds.
Priority of the Requirement: High	

No Functional Requirements

Requirement Identification:	RNF 01
Requirement Name:	Scalability
Characteristics:	Requirement
Requirement Description:	The system must grow as users increase
Associated Requirement:	RF01,RF02,RF06
Priority of the Requirement: High	

Requirement Identification:	RNF 02
Requirement Name:	Usability
Characteristics:	Requirement
Requirement Description:	The system must be friendly with the user, in order to help him to use the software with the less amount of clicks possible



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Associated Requirement:	RF01,RF02,RF03 RF04 RF05 RF06 RF07 RF08
Priority of the Requirement:	High

Requirement Identification:	RNF03
Requirement Name:	Fault Tolerance
Characteristics:	The system must be efficient and have a fast recover
Requirement Description:	Restriction
Associated Requirement:	RF04, RF07, RF08
Priority of the Requirement:	High

Requirement Identification:	RNF04
Requirement Name:	Security
Characteristics:	The system must be safe and keep secure the critical information of the clients
Requirement Description:	Requirements
Associated Requirement:	RF01, RF08
Priority of the Requirement:	High

Requirement Identification:	RNF05
Requirement Name:	Disponibility
Characteristics:	the system must be available at any time for use
Requirement Description:	Requirements
Associated Requirement:	RF01,RF02,RF03 RF04 RF05 RF06 RF07 RF08
Priority of the Requirement:	High

Requirement Identification:	RNF06
Requirement Name:	Maintainability
Characteristics:	the system must be easy to incorporate new features
Requirement Description:	Requirement
Associated Requirement:	RF01,RF02,RF03 RF04 RF05 RF06 RF07 RF08
Priority of the Requirement:	High



Requirement Identification:	RNF07
Requirement Name:	Disponibility Rendering Engine
Characteristics:	the system must run in differents Web Browsers
Requirement Description:	Restriction
Associated Requirement:	
Priority of the Requirement: High	

3.1 Common interface requirements

3.1.1 User interfaces

The user interface will be a web page specifically designed to simplify the online commercialization of products. This page will include navigation windows, interactive buttons, product lists, and text fields to perform searches, enter purchase information, and streamline navigation. The platform will feature sections for product categories, product characteristics, prices, and purchasing options. Users will have the ability to access and use this interface from any web browser, enabling them to easily browse the catalog, add products to their cart, make payments, and manage their orders in an intuitive and efficient manner.

3.1.2 Hardware interfaces

The system will require electronic devices such as computers, cell phones, or tablets connected to an internet network. Additional features necessary for optimal navigation will include the following:

- Network adapters
- Processor of 1.66 GHz or higher
- Minimum memory of 256 MB
- Mouse
- Keyboard

3.1.3 Software interfaces

- Operating System: Windows 10 or higher
- Browser: Chrome, Opera, Microsoft Edge, or other web browsers

3.1.4 Communication interfaces

The system will implement a communication interface based on standard Internet protocols to ensure efficient and secure file and data traffic. For file or document exchanges, the system will utilize proven and robust protocols such as FTP (File Transfer Protocol), with the option to use more secure versions like SFTP (Secure File Transfer Protocol) or FTPS (FTP Secure) according to encryption and security requirements.



For internal communication, whether between servers, client applications, or among servers, protocols such as HTTP/HTTPS will be employed. This choice aims to ensure reliability and protection of communications, particularly for handling sensitive data, using HTTPS's intrinsic encryption to safeguard the integrity and privacy of data in transit.

3.2 Functional Requirements

3.2.1 Functional Requirement 1

- **Login:** The system will provide secure login functionality for administrators.

3.2.2 Functional Requirement 2

- **Register Products:** The system will allow administrators to register new products with details like name, description, price, and category.

3.2.3 Functional Requirement 3

- **Modify Data:** The system will allow clients to modify their personal information such as address, phone number, and payment methods.

3.2.4 Functional Requirement 4

- **Product Sales:** The system will enable administrators to handle product sales and generate corresponding records.

3.2.5 Functional Requirement 5

- **Generate Reports:** The system will allow administrators to generate reports of system activities, including sales, inventory, and clients.

3.2.6 Functional Requirement 6

- **View Catalog:** The system will provide catalog viewing functionality for both clients and administrators.

3.2.7 Functional Requirement 7

- **Add to Cart:** The system will allow clients to add products to a shopping cart before proceeding to checkout

3.2.8 Functional Requirement 8

- **Payment Verification:** The system will perform payment verification to ensure transaction validity and confirmation.



3.3 Non-functional requirements

3.3.1 NFR01 Scalability

- Design the application to handle significant growth in the number of users and products in the store, considering that it will be used simultaneously by customers and staff. Ensure optimal performance even with a considerable increase in platform load, where you must select and implement an ideal tool for database scalability, ensuring that it can efficiently manage the increase in transactions and data without compromising system performance

3.3.2 NFR02 Usability

- Develop an intuitive and easy-to-use user interface for end users. Guarantee accessibility for users with different levels of technological skill, being friendly to anyone who needs to use the system. tención de consultar y subir información pertinente para cada una de ellas.

3.3.3 NFR03 Fault Tolerance

- Develop an intuitive and easy-to-use user interface for end users. Guarantee accessibility for users with different levels of technological skill, being friendly to anyone who needs to use the system.

3.3.4 NFR04 Security

- Implement robust security measures to protect user information and transactions. The system must not allow user or client data to be public

3.3.5 NFR05 Disponibility

- Implement robust security measures to protect user information and transactions. The system must not allow user or client data to be public

3.3.6 NFR06 Maintainability

- The system must allow adding new functionalities and have adequate documentation that allows changes to be made within it if necessary.

3.3.7 NFR07 Rendering Engine

- The system works in both Windows browsers such as Chrome, as well as iOS browsers such as Safari, corresponding to the most used operating systems within the Hardware Store, it must be able to display all its contents, without data loss or failures. Visuals, regardless of the browser used, must also be able to send updates and patches without affecting its performance.