**SOFTWARE REQUIREMENTS SPECIFICATION**

**for**

**S&O Hardware Store**

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1. **Introduction** 
   1. **Purpose**

The purpose of this document is to specify the software requirements for a computer program that will help “S&O Ferreteria” manage their inventory, calculate taxes and profit margins, and display product information for sale prices.

* 1. **Product Scope**

The scope of this document is to define the requirements for the software program to be developed for “S&O Ferreteria”. It will detail the functional and non-functional requirements, the constraints, and the performance requirements.

* 1. **Definitions, acronyms, abbreviations**

S&O Ferreteria - The hardware store that requires the software system.

IVA - The taxes on sales.

Product - Any item that S&O Ferreteria stocks.

* 1. **References**

Robert Cecil Martin. (2008). Clean Code: A Handbook of Agile Software Craftsmanship (1st ed.).Pearson.

* 1. **Overview**

In the rest of the document, we have important information that describes the functionality of our software product, the requirements and an appendix where we can find meanings for our words and acronyms used throughout the document.

1. **Overall Description** 
   1. **Product perspective**

The software program will be a standalone system designed for use by the owner of “S&O Ferreteria” and nobody else.

* 1. **Product Functions**

The system must allow the user to login.

The system must allow the user to update their data.

The system must allow organizing products and prices in data tables.

The system must calculate the selling price of the products.

The system must search, add, modify and update products.

The system must allow the downloading and printing of reports.

* 1. **User Classes and Characteristics**

The users of the software will be the employees of the S&O Hardware Store who will have basic computer skills and knowledge of hardware inventory management.

* 1. **Operating environment**

The software will run on a Windows operating system with a minimum requirement of Windows 7 or higher.

* 1. **Design and Implementation Constraints**

The software will be developed using the Microsoft.Net framework and will utilize a Microsoft SQL Server database to store inventory and product information. The software will be designed to meet the S&O Hardware Store’s specific requirements.

* 1. **User Documentation**

The inventory control application must have clear and detailed user documentation that allows users to understand the operation of the application and use all its functionalities effectively.

This document must include the following:

1. **User manual**

The application must have a user manual that explains in detail each of the functionalities of the application and how to use them effectively.

1. **Help guides**

The application must have help guides that explain how to perform specific tasks in the application, such as registering a new product or generating an inventory report.

1. **Technical support**

The application must have a technical support service the allows users to obtain help in a case od technical problems or doubts on the use of the application.

* 1. **Assumptions and** **dependencies**

The inventory control application is designed to work under certain assumptions and dependencies that must be considered for its proper use. These are the following:

1. **Assumptions**

**i)** It is assumed that users have a basic knowledge of inventory management and the use of similar software tools.

**ii)** It is assumed that users have an Internet connection to access the application.

**iii)** It is assumed that the information entere into the application is accurate and updated by the users.

1. **Dependencies**

**i)** The application depends on a compatible operating system, such as Windows or Mac Os.

**ii)** The application depends on the technologies used in its development, such as programming languages, database, and development frameworks.

1. **Specific Requirements**
   1. **Functional Requirements**

The software shall have the following functions:

* User interface: The software shall have a graphical user interface that is easy to use and allows the user to interact with the software.
* Database interface: The software shall interact with a Microsoft SQL Server database to store inventory and product information.
  1. **Functions**

The software shall have the following functions:

* **Inventory management:**
* Add new inventory items: The user shall be able to add new items to the inventory database.
* Delete inventory items: The user shall be able to delete items for the inventory database.
* Update inventory items: The user shall be able to update the information of existing items in the inventory database.
* View inventory status: The user shall be able to view the current status of the inventory, including the quantity in stock and the location of the inventory.
* Tax and profit calculation:
* Calculate taxes and profits: The software shall automatically calculate the IVA and 30% of the products to determine the store's profit.
* Product information display:
* Display product lists: The software shall display a list of products with their respective suppliers and prices.
  1. **Performance Requirements**

Thesoftware shall have the following performance requirements: The software shall respond to user input within 2 seconds.

* 1. **Design constraints.**

Thesoftware shall be designed to meet the following constraints:

* The software shall be developed using the Microsft.NET framework.
* The software shall use Microsoft SQL server database to store inventory and product information.
  1. **System Attributes**

Thesoftware shall have following system attributes:

* Usability; The software shall be easy to use for employees with basic computer skills.
* Reliability: The software shall be available for use 99% of the time
* Security: The software shall be password protected to prevent unauthorized access.
  1. **Other Requirements**

**The** software shall meet the following requirements:

* The software is compatible with Windows 7 or higher.
* The software shall be delivered in the English language.

1. **Appendages**
   1. **Input/output formats, on screen or in list**

A list of sold items is required as input for an inventory control program for a hardware store. This list should include detailed information about each item, such as its name, serial number, quantity sold, and unit price. This information is necessary to update the inventory and ensure that the store’s stock is accurate.

The output of the program should be an updated list of the remaining items in the inventory, including the quantity remaining. This information is crucial for the hardware store to order new supplies in a timely manner and avoid stockouts.

* 1. **Programming language restrictions**

The limitation of the project is that only Java can be used, but this is not a bad thing since Java is a versatile programming language that can be used to develop a wide range of applications, from desktop applications to web and mobile applications. It is also an object-oriented programming language, which means that classes and objects can be used to organize the code and simplify data management.