**SOFTWARE REQUIREMENTS**

**SPECIFICATION**

***FOR***

***Warehouse Management Tool***

***Version 1.1 Approved***

***Prepared by Evan Emmanuel Ong***

***Siddharth Singh***

***Darren Toh***

***Justine Yeo***

***Pavinder Singh***

***Dominic Chong***

***Group C-4***

***9th February 2018***

**Table of Contents**

**Cover Page1**

**Table of Contents2**

**Revision History3**

1. **Introduction4**
   1. **Purpose**4
   2. **Document Conventions**4
   3. **Intended Audience and Reading Suggestions**5
   4. **Project Scope**5
   5. **References**6
2. **Overall Description7**
   1. **Product Perspective**7
   2. **Product Features**7
   3. **User Classes and Characteristics7**
   4. **Operating Environment**8
   5. **Design and Implementation Constraints**8
   6. **User Documentation**8
   7. **Assumptions and Dependencies**8
3. **System Features-**
   1. **Product Perspective**-
   2. **Product Perspective**-
4. **External Interface Requirements-**
   1. **Product Perspective**-
5. **Other Non-Functional Requirements-**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason for change** | **Version** |
| Evan Emmanuel Ong | 5/2/2018 | Updating SRS | 1.0 |
| Evan Emmanuel Ong | 9/2/2018 | Updating SRS | 1.1 |

**1. INTRODUCTION**

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described and a list of abbreviations and definitions is provided.

**1.1 Purpose**

The purpose of the warehouse management tool (WMT) is to provide the user with an effective, efficient and secure way of keeping track of, updating and maintaining stock within the warehouse on a day to day basis by providing accurate and optimized information of the warehouse’s stock and its movements and enable its users to make better critical management decisions.

**1.2 Document Conventions**

Documentation is done in Calibri, Font 12. Information of special significance would be in bolden and underlined as follows, **example**. Numbers to reference for certain readers are bracketed and bolden, e.g. **(1.1.1)**. Main title text are bolden in Calibri, Font 20, sub title text bolden in Calibri, Font 16.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| WMT | Warehouse Management Tool |
| User | A person who interacts with the WMT |
| SD | Sequence Diagram |
| AD | Activity Diagram |
| CD | Component Diagram |
| DUC | Detailed Use Case |

**1.3 Intended Audience and Reading Suggestions**

This document is for **(1.3.1)** company executives, **(1.3.2)** project managers, **(1.3.3)** users, **(1.3.4)** testers, **(1.3.5)** documentation writers.

The rest of this **Software Requirements Specification** contains the intended project scope followed by an in-depth overall description of the product, its user classes, characteristics, operating environment and user documentation.

This is then followed up by the full and in-depth coverage of system features within the project as well as its functional requirement.

Following this, external interface requirements are covered in its different aspects, user, hardware, software and communication interfaces.

Next, other non-functional requirements are covered in this SRS, including performance, safety, security and other requirements as well as software quality attributes.

Lastly, Appendices are listed in alphabetical order for reference of the reader.

**(1.3.1) Company executives** are recommended to continue from **Overall Description, Page 6** onwards with special attention to **Product Features, Page < >** so as to get a full idea on the product to see if it fits into your company’s system.

**(1.3.2) Project managers** are recommended to continue from **Product Features, Page < >** so as to have a full understanding of the product’s features and how to better integrate it into your project.

**(1.3.3) Users** and **(1.3.4) Testers** are recommended to continue from **System Features, Page < >** onwards to understand all of the system features.

**(1.3.5) Documentation Writers** are recommended to continue from this page onwards for the full available documentation of the software specifications.

**1.4 Project Scope**

The Warehouse Management (WM) Tool is created such that it would help the user with the ability to manage the stock in his warehouse inventory. It would also be able to provide him with all the necessary stock details, such as stock report. This WM tool should make the stock taking more efficient, allowing the user to keep track of the stock closely with minimal effort and be updated on the stock quantity, stock flow, and stock reports. This would also help the user in making critical decisions for his warehouse. In turn this would enable corporations or businesses to have better work system dynamics within their companies and easier day to day overall operational management within departments or the overall company.

**1.5 References**

No references have currently been made.

**2. Overall Description**

This section will give an overview of the whole system. The system will be explained in its context to show how the system flows internally and the basic functionality of it. It will also describe what type of stakeholders that will use the system and what functionality is available for each type. Lastly, the constraints and assumptions for the system will be presented.

**2.1 Product Perspective**

The product, the warehouse management tool is a new self-contained system. It is used independent of other systems. The product is mainly used for operating internal warehouse stock management of a business/company or entity who requires an internal management system to help in day to day operations as well as long term operations.

**2.2 Product Features**

With the WMT, users will be able to access multiple features. These include administration and management features such as:

1. Registration of new users, which allows the current user to add new users into the system.
2. Update user information, which allows updating of personal information of the user logged in.
3. Add Stock, which allows the user to add new items that do not already exist into the WMT file records.
4. Remove Stock, which allows the user to remove existing items that exist within the WMT file records.
5. Edit Stock, which allows the user to edit existing items that exist within the WMT file records to its specific details it is split by.
6. Search Stock, which allows the user to search for items within the WMT file records according to the specific field chosen to search by
7. Summary Report, which displays a summary of the complete list of stock within the WMT file records, the summary can be further split according preference.
8. Encryption of files, file data inside WMT are all encrypted and decrypted whenever used.

A more detailed overview of all the respective functions will be elaborated on in system features.

**2.3 User Classes and Characteristics**

The user class is viewed from one perspective, the ‘manager’ user. It has the characteristics of an administrator in the system with him being able to perform all available tasks once logged into the system as a valid user.

**2.4 Operating Environment**

The current system operates on a file-based storage and requires a computer to run the system program with the appropriate specifications.

|  |  |
| --- | --- |
| * Parts | * Minimum System Requirements |
| - Operating System | * Linux/Windows |
| * Processor | * Core i5 |
| * Hard Disk | * 100GB |
| * RAM | * 8GB |

**2.5 Design and Implementation Constraints**

Some design constraints are that they system was designed with it running as a stand-alone system so there were no plans or features to set it up to integrate it into a bigger system. The implementation is also constrained by the development being done in only a certain coding language, we are able to apply additional features like adding a clickable GUI interface and other more sophisticated modifications.

**2.6 User Documentation**

A user manual with detailed use of the product with detailed explanations on how to navigate the system.

**2.7 Assumptions and Dependencies**

Our assumptions are that the VMT will be used in a warehouse or inventory tracking environment where there are goods that have a quantity and other aspects to be taken note of with the specific goods. The system depends on user input of incoming and outgoing stock to be up-to-date.