Stocks (Inventory) Maintenance System

Problem Statement:

TInventory Maintenance System is an application which keeps the data in a centralized way which is available to all the users simultaneously. It is very easy to manage historical data in database.
As the data is centralized it is very easy to maintain the stocks of the various items in all godowns.

Software Requirements:

1. **Introduction**

1.1 Purpose of the requirements document :-

The purpose of the Software Requirement Specification is to reduce the communication gap between the clients and the developers. Software Requirement Specification is the medium through which the client and user needs are accurately specified. It forms the basis of software development.

The Basic purpose of developing this project to cater the needs any large scale stock management departments

1.2 Scope of this project :-

This document is the only one that describes the requirements of the system. It is meant for the use by the developers.

The scope of this system to allow the stock management departments to manage gowdowns, inwards info, delivers info, order cancellation info, damages info and generate the reports dynamically by updating the info very effectively with user friendly screens.

1.3 Definitions, Acronyms and Abbreviations :-

Owner - Implies the person who owns the godown for storing and supplying the stock

Worker - works for the owners by checking and maintaining inventory on daily basis

Supplier - Implies the person who supplies the stock

+ means public
- means private
means protected
Solid diamond - Generalisation
Hollow diamond - Aggregation
_____ (line) - Association
1, 1..*, * - Multiplicity

1.4 References :-

Wikipedia.org
Scribbr.com

1.5 Overview of the remainder of the document :-

Inventory Maintenance System is an online software application which fulfills the requirement of a typical Stock Analysis in various godowns. It provides the interface to users in a graphical way to manage the daily transactions as well as historical data. Also provides the management reports of invoices and orders.

This application maintains the centralized database so that any changes done at a location reflects immediately. This is an online tool so more than one user can login into the system and use the tool simultaneously.

The aim of this application is to reduce the manual effort needed to manage transactions and historical data used in various godowns. Also this application provides an interface to users to view the details like the Stock Statements of all products.

2. General Description

2.1 Product Perspective :-

The objective of the project is to provide an efficient inventory control whose main functionality apart from calculating the inventory include predicting the requirement for the next order. The product also aims to keep track of the shelf life of resources. If any resource nears the end of its shelf life, it would intimate to the owner the details of the quantity that is near its expiration date.

The suppliers can also keep track of the orders and supply to owners as and when required.

2.2 Product functions :-

- Login and Logout for Workers and Owners
- Ordering/Modifying/Removing Stock
- Displaying Order details

- Calculating Expiry dates
- Tracking orders
- Printing invoice
- Calculating require stock
- Making payment

2.3 User characteristics :-

The owners, workers and suppliers should be able to make, retrieve, edit, remove and track orders on specific dates under all occasions.

The Owner should be able to do the following functions :

- Login/Logout
- Track Order
- Make payment
- Order Stock
- Sell Stock

The Worker should be able to do the following functions :

- Login / Logout
- Check/Track Stock

The Supplier should be able to do the following functions :

- Check payment updates
- Track Orders
- Supply Stock

2.4 General Constraints :-

- Implementing the database at least using a centralized database management system.
- The software shall be a standard system running smoothly even in case of slow network
- Easy to use GUI

2.5 Assumptions and Dependencies :-

- Calculating the expiration date without explicit commands from the user and when required alerting the user
- On creating / modifying / deleting orders, the same will be reflected throughout the system.
- Past history will be stored automatically

3. Specific Requirements

Functional Requirements :

The main purpose of functional requirements within the requirement specification document is to define all the activities or operations that take place in the system.

- The System holds all the details of all the employees who are working in the organization.
- The design is such that the user does not have to manually update the inventory every time, the System does if for the user.
- Whenever an entry is entered then accordingly the stock number will be automatically updated.
- It allows the users to change their password for future security.
- It allows all the users to track orders.
- It allows Owners to create / modify / remove orders.
- It allows Suppliers to check and in turn supply orders.
- It keeps track of expiration dates and alerts users.
- It keeps track of payments.
- It allows Owners to display order details.
- It allows it to generate bills and hence make payments of all impending bills.

Non Functional Requirements :

Usability :

- The system must be easy to use by all the users.
- The system must be quickly accessible.
- The system must be intuitive and simple in the way it displays all relevant data and relationships.
- The orders of the system must be easily navigable by the users with buttons that are easy to understand.

Reliability

- The System must give accurate inventory status to the user continuously.
- The System must successfully add any order, product and provide estimations and inventory status in relevance with the newly updated entities.
- The system must provide a password enabled login to the user to avoid any foreign entity changing the data in the system.

- The system should not update the data in any database for any failed processes

Performance

- The system must not lag.
- The system must complete updating the databases, adding of orders, products successfully every time the user requests such a process.
- All the functions of the system must be available to the user every time the system is turned on.
- The calculations performed by the system must comply according to the norms set by the user and should not vary unless explicitly changed by the user.

Legal

- The software must be licensed on an individual basis for smaller companies, as well as through a multi-license deal for larger corporations

Supportability

- The software is designed such that it works even on systems having the minimum configuration.
- The system is adaptable even if additional plugins or modules are added at a later point.
- The data can be exported to the manager so as to make the system more portable.

Appendices

- Products - Items which are to be sold by the suppliers
- Stock - All categories of products available for sale
- Inventory - Maintaining of stock and storing in an orderly fashion till required
- Generalization - is a relationship in which one model element (the child) is based on another model element (the parent)
- Composition - implies a relationship where the child cannot exist independent of the parent
- Aggregation - implies a relationship where the child can exist independently of the parent.
- Association - the link between two classes
- Multiplicity - is an indication of how many objects may participate in the given relationship

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