

Inventory Management Organism

A Rohini, Wubshetasamnew Woldeyohannshiluf and Teshometeklemicheal Walelignayimelo
B.SC Software Engineering, Haramaya University

Abstract: This paper describes the *Inventory Management System* sufficiently to determine the achievability and usability of a finished system. The nucleus concept is to track the sale of items from the cash registers with additional features for interpreting the data. It uses a client-server model with a connected database to allow multiple stores and warehouses to be connected.

I. INTRODUCTION

Inventory management system currently applied in different supper market, stores, institutions like university, industries etc. manually for recording item details, adding new item, controlling lose and damage, updating the store content and item details etc. but during this process recording of item details performed by counting the item physically, the item may be miss placed and lost, searching and maintaining item records is complicated and slow, Data is manually collected and processed to produce any report causes for duplicating, delay and inconsistency of report. Recording of products sales, purchases, expenses and inventory are in manual form. Keeping in view of all such problems, the manual.

II. STRUCTURE CHUCK

The *Inventory Management System* uses a web-based interface to display inventory data to the stock manager client. The product will use of open-source software primarily due to cost of implementation. A JSP (JavaServer Pages) servlet will be hosted by an Apache Tomcat web server

The first feature of the Stock Manager Client web interface component allows the Stock Manager Client to view the current stock of products, along with the capabilities of searching and sorting the products.

The second feature of the Stock Manager Client web interface will allow the user to modify application settings, such as the threshold for email notifications, frequency of inventory scans (daily at a particular hour, weekly, monthly, etc.), and security settings.

The third feature of the StockManager Client web interface will allow the user to update the inventory during the restocking process a web interface will be used, a network that supports the HTTP/HTTPS protocol must exist, whether it is a private network for an isolated customer deployment or an Internet connection for a multi-site customer deployment. The bandwidth of the network depends on the frequency of transactions. The database to store the inventory data will use a MySQL database.

III. LIFECYCLE PREPARATION

Objectives

The main goal of *Inventory Management System* is to ensure consistent availability of supplies for consumers. Thus, *Inventory Management System* is directed toward owners of small to large stores and stock managers who are responsible of maintaining sufficient goods on hand in a retail or manufacturing business. It can scale from a single computer

running both client and server software up to multiple stores and warehouses.

plan

The time estimated to complete the *Inventory Management System* project is fairly short. There will be three major Win-Win Spiral Model cycles through our prototyping stage, beta release, and final release. We will need two weeks of designing the architecture and implementing core features and five weeks of adding functionality and testing. The project can be completed by 6-8 people in at most 7 weeks.

IV. FEASIBILITY VALIDATION

Assumption

The above design should works for the *Inventory Management System* application. However, we are emulating a cash registers interface to work with our software by simulating barcode inputs. A more realistic design of cash register interface can be done to suit the integration, as the interface does not interfere with the data collected. We expect that the cash registers clients are able to update their data to the current point of sale in case of loss of connection to the server. The particular restocking procedure adopted by each store does interfere with the feasibility and accuracy of the application as it does not remind the stock manager to update the data each time they had done any restocking. We also trust that that the Secure Socket Layer (SSL) is reliable in creating a secure connection between a client and a server.

Menace

One of the major risks covered by this application is theft breaks synchronization between the inventory and the database. The information could be generated by the data stored in this application. The confidence level of trusting data generated depends on the accuracy of the restocking procedure. Therefore, we are facing a risk of reckless stock manager who could detriment the accuracy of the data. As of the reliability of the SSL encryption, a resolution for this could be by developing SSL and digital certificate policy and configuration guidelines. In addition, giving a choice to the user to set the minimum level of SSL used by not violating the policy should convince them the trustworthiness of the application.

Another risk is the competition from other Point of Service software. There are several large competitors in this field including a solution from Microsoft; however, all of these tend to be expensive. *Inventory Management System* will be a low cost solution mainly targeted at smaller businesses while including the possibility of later expansion.

Functional requirement

The proposed system is intended for inventory purposes. Thus, it can perform different processes included in the inventory. It will be able to monitor the delivery of a certain items; the newly ordered items will be added to the current stocks and for the outgoing stocks that can be subtracted from the current stock. Generally the system has the following functions:

Login: in the very first page the system shall request user to login according to their privileges .

Add stock/products: the system shall provide stock manager to add stock details in to store.

View stock/product:the proposed system provide stock manager to view, edit or update, and delete the stocks which are added previously.

Add stock category: the system provide to stock manager to add stock category.

View stock category: the system shall provide stock manager to view, edit or delete and update the stock category.

Add purchase: the system shall be providing purchaser and the system administrator to add, purchase and order item.

View purchase: the system shall be provide to view, edit or delete, update and prepare purchase report of the purchased items.

Manage customers: the system shall manage customers by add new customers(add customers), view customers details(view customers), update details and delete customers(edit or delete).

Add sales: the system shall be provide to sales man to add(register) the soled items.

View sales: the systems shall provide to view, edit or delete the sold items and provide sales reports.

Search: the systems provide to search anything that needs to search.

Update store details: the system shall provide to administrator or stock manager update store details.

Administrate: the system provide to administrated/managed by administrator.

Logout: the system shall provide user to logout.

Change password: the system provide user to change password.

Non-functional requirement

Response time: login and logout process shall be takes less than 1 minutes and the overall operation/process under the system takes less than 1 minutes.

Error message: every error shall have an appropriate error message.

Reliability: the system is fully functional all over the working days.

Availability: the system is available 24/7(24 hours a days and 7 days a week)

Security: the system is mostly secure on the database.

Portability: the number of system is one.

User interface: attractive, easy to use and user friendly window for the users.

Machine independent: the system is work on different machines

Operational Concepts

The *Inventory Management System* is a real-time inventory database capable of connecting multiple stores. This can be used to track the inventory of a single store, or to manage the

distribution of stock between several branches of a larger franchise. However, the system merely records sales and restocking data and provides notification of low stock at any location through email at a specified interval. The goal is to reduce the strain of tracking rather than to handle all store maintenance. features may include the ability to generate reports of sales, but again the interpretation is left to the management. In addition, since theft does occasionally occur, the system provides solutions for confirming the store inventory and for correcting stock quantities

CONCLUSION

The inventory system where to control all system functions and maintain database details, billing and sales details, supplier and purchaser details.

References

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