CASHIER AND STOCK MANAGEMENT MODULE OF SHOP MANAGEMENT SYSTEM

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ABSTRACT

Some of the small clothing stores or boutique shops are using different system to running different business activities. There some problems that cause management not efficiency handled. Computer technology is emerged as new force to substitute traditional management method. Shop Management System (SMS) is a software application to be developed to manage most of the activities or tasks running in a boutique shop. This system has divided to three main modules that are cashier and stock management, supplier information management and generating report, and fingerprint authentication and staff management. The module developed by myself is Cashier and Stock Management (CSM). SMS is the combination of these features together in one system to managing the shop activities which are much easier than using different kind of applications which may costly, wasting time and inefficient. This thesis shall explain detail development process and related information such as introduction, literature reviews, methodology, implementation, result and discussion and conclusion of CSM with supported documents of Software Development Plan, Software Requirement Specification, Software Design Document and Software Test Design.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Some of the small clothing stores or boutique shops are using different system to running different business activities such as cashier machine to handle business transaction, manually record stock information and staff personal detail or even not recording the information at all. Normally the problem caused by the shop are just started the business or still in growing of the business, method using to running daily operation of the management activities are not performed efficiently. Shop Management System is a software application to be developed to manage most of the activities or tasks running in a boutique shop. This system has divided to three main modules that are cashier and stock management, supplier information management and generating report, and fingerprint authentication and staff management. This application will provide features such as cashier to handle sales transaction, stock management to control

stock availability, staff information management to handle employee details, supplier information management for purchasing order and generating report.

For cashier and stock management, we can use the stock information stored in system database to generate barcode which can be print out used to tracking stock. User is able to edit or updating stock information, delete and add new stock information into system database. In Cash Register, user able to check previous invoice made and run for a new sale transaction. All sale transaction will be stored in system database and print out with an invoice right after the transaction is finished.

By combining these features together in one system to managing the shop activities are much easier than using different kind of applications which may costly, wasting time and inefficient. Besides, Shop Management System can provide a better security to manage business activities compared with manual recording method in business management, other issue such as authenticated user to access administrative tasks will easier to control by using a main system in a shop.

For security and authentication level, this system used fingerprint authentication system to login to system. Fingerprints or thumb prints are the oldest and the most commonly known biometric and users can never change their unique identifier. Shop Management System will allow staff to take their attendance with using thumb print. Thumb print sign-in system will collect Staff attendance and calculate how many staffs are attended in the day. Besides, this system can check who were absent or late. Thumb Print system also more simply and secure it is because biometrics cannot be duplicated or hacked. It is also not necessary to remember unique user ID and password to gain entry to login into the system.

Shop Management System designed to provide user easier, faster and efficiency way on managing small boutique shop in.

1.2 Problem Statement

Based on our case studies, we found several problems when using the current manual system module. There are:

i. Some of the boutique store using different method or different things to handle different kind of business activities in a shop which may needed higher cost and resources. Cashier machine for handling sales transaction only.

ii. Some management activities are not recorded or recorded in manually which are not efficient on running management task such as checking stock availability will have to search and find in store room by the staff themselves.

1.3 Objective

The objectives to create Boutique Shop Management System are:

i. Centralize and combining all features to manage business activities in one complete and efficient application for management in the shop. Integrate cashier machine into the system for easier management.

ii. Computerize works and provide a secure and efficiency management method for business activities and management. Able to trace stock quantity and availability with stock barcode assigned.

1.4 Scope

The scopes of my module in this system which is stock management on stock information and cash register on sale transaction are including the users and constraints of this system.

i. Shop Management System is designed for a small clothing store or boutique shop for managing the common business activities such as cashier, checking stock availability and stock information management.

ii. Users of the Shop Management System include Supervisor, Cashier and Sales Assistance of the shop. Supervisor and cashier will have the authority to handle cashier sales transaction while only supervisor have the authority to access stock management feature.

CHAPTER 2

LITERATURE REVIEW

2.1 Module Overview

Shop Management System (SMS) is a software application to be developed to manage most of the activities or tasks running in a boutique shop. This system has divided to three main modules that are cashier and stock management, supplier information management and generating report, and fingerprint authentication and staff management. The system module covered in this document is the cashier and stock management module.

Cashier function is designed to handle normal daily sales transaction while stock management will manage stock information such generating barcode and tracing stock availability. The design of cashier functionality will refer to the existing system to meet the normal requirements of the shop to handle business transaction and some

enhancement will apply in this project such as the interface and the components design. For the stock management, SMS will provide the barcode system to identify each type of stock and the barcode will be generated by the SMS itself. For reliability issue, authenticated user will able to modify the stock information as needed such as pricing, discounting rate or editing other information. Stock information included important information such as pricing, quantity, discount, description and others to act as the reference for the user on management.

The main feature in this module is focused on how the application using the type of stock and other information to generating barcode to identify the stock. User will need to fill the require information as the input such as type of stock into the system and the system able to generate the identifier code for the stock itself. This feature can help user not to wasting time on how to generate a systematic code to identify the stock in their shop and it provides an efficiency way to tracing the stock by the barcode system. Besides, other features such as cashier in this module are common functions that needed in shop management which will provided in SMS as well.

2.2 Analysis of system module

For cashier feature in Shop Management System, the main entity is the users which have two level of authentication to access the cashier function. The authorized users are supervisor and cashier, which allow controlling cashier feature in Shop Management System to manage sales transactions of the business.

For stock management feature in Shop Management System, the main entity user will only the supervisor which is the only user that allowed and authorized to handling the stock information in SMS. Generating barcode to the stock for management are provided in this module, barcode system for stock management will giving distinction of every stock types which will ease to trace to stocks.

And the last user is staff who working in the shop, this level of user does not have any authorize account and they cannot access into the management features provided by the system but them able to use the system to trace the stock availability on the main interface of the system.

Please refer Software Requirement Specification (SRS) Document for sequence diagram.

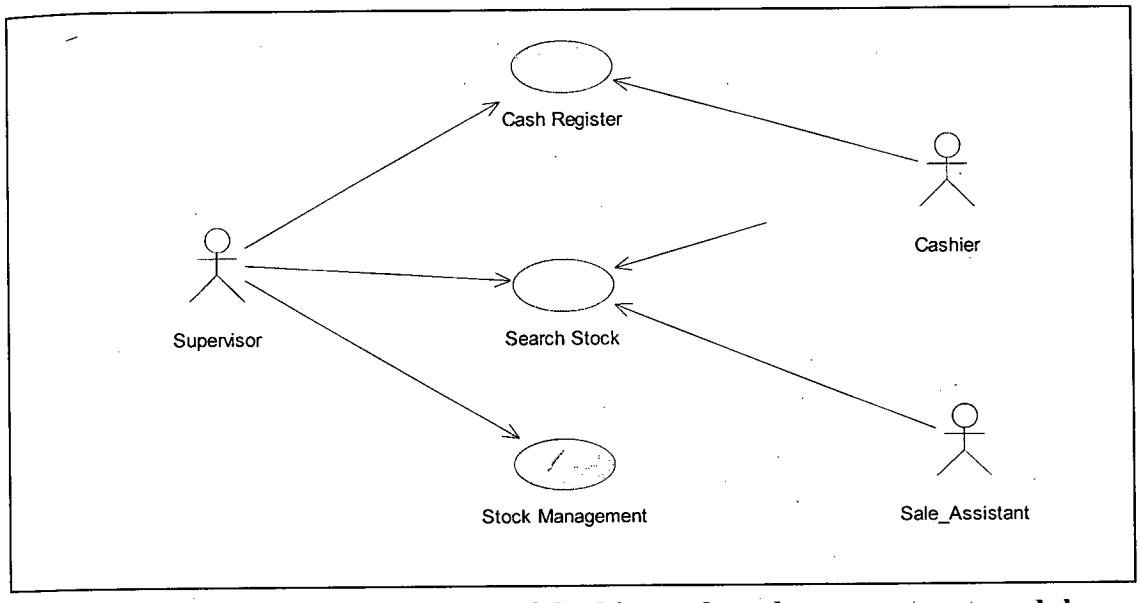


Diagram 2.1 : Use Case diagram of Cashier and stock management module

2.3 Analysis of existing system

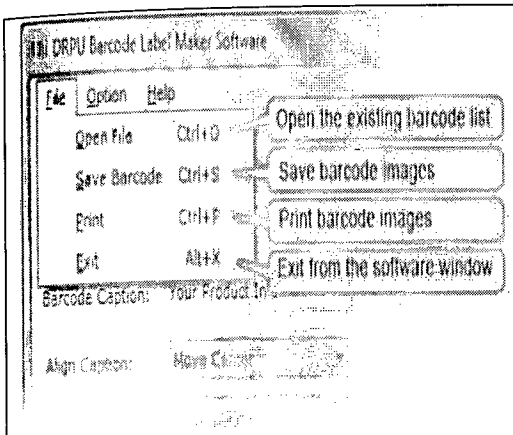
PCAmerica is a software application that provides variety of features on management of a restaurant, liquor store or retail shop. Main functions are cash register, stock management, staff management, supplier management and reporting. In cashier and stock management module, the cash register and stock management in PCAmerica are relevant to the module. Those function will be referred as the common requirements for the module and apply in the SMS, and some extra feature will enhance the existing system such as normal user (employee) can tracing the stock availability by using stock barcode without logging into the system as cashier or supervisor.

2.3.1 DRPU Software

DRPU software, an emerging name in today's growing IT sector market offers user friendly software products of highest quality to clients worldwide. Our mission is to create and develop various software solutions helpful in fulfilling customer's demands. Company is fully focused to expand and improve the product's features from time to time according to the user need and requirement.

Our economical software utilities are globally recognized and accepted worldwide to accomplish easy and more accurate work within organizations. This recognition is achieved by providing powerful, fast and easy-to-use software to our clients coupled with reliable and sound functioning.

Table 2.1 : DRPU menu



1. Menu Bar

File Menu includes the following options:

Open File

Open command on the File Menu redisplays a saved barcode file or list. Software pops up a standard Windows File Open Dialog box that allows you to explore the file system to locate the barcode file that you want to open.

Save Barcode

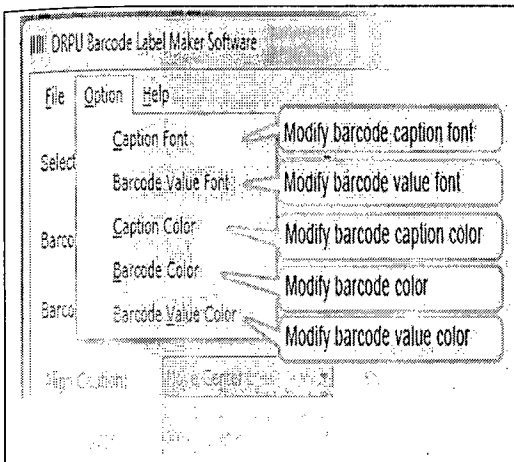
Save command on the File menu allows you to save barcode drawing or any changes made in barcode images. Software saves generated barcode images to a variety of graphics formats, including jpeg, gif and bmp (by default).

Print

Software has the ability to print barcode images (either single or multiple) on a paper.

Exit

Allows to exit from the software window.



2. Option Menu

Caption Font

Software facilitates you to fully customize bar code label images as per industry need and requirement by providing facility to change barcode caption font from variety of available barcode fonts.

Barcode Value Font

In the Barcode settings, you can modify barcode value font as per industry specification.

Caption Color

Barcode Software acquires the features to change barcode image caption color.

Barcode Color

Provides option to create colorful barcode labels with easily modifying barcode color.

Barcode Value Color

You will have the facility to customize the barcode labels by changing the barcode value color.

Software Tool Bar

Barcode Label Maker Software Toolbar options:

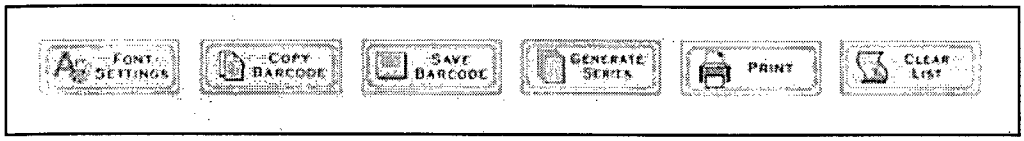


Figure 2.1 : DRPU Tool bar

FONT SETTINGS

Facilitates to easily customize barcode font settings including barcode caption font, caption color, barcode value font and barcode value color according to your need and requirements.

COPY BARCODE

Provides option to copy barcode labels and paste it at specified application including MS-Word, MS-Paint, MS-Excel etc.

SAVE BARCODE

Provide option to save generated barcode images in BMP (Default) or in JPG, GIF format at your specified location.

GENERATE SERIES

Facilitates to create and generate barcode labels in bulk using Random or Sequential barcode series.

PRINT

Lets you print the generated barcode labels.

CLEAR LIST

Clear generated barcode series from the list.

Important information:

Barcode Label Maker Software facilitates you to hide the Barcode Value and Barcode Caption. Just mark the "Hide Value" and "Hide Caption" check box to generate the barcode without specifying the barcode value and caption as shown in the screen below:

Barcode Label Maker Software even provides option to save the image either at "Default Location" or at "You Defined Location" as displayed in the screen below:

You can easily perform the following task (Selection Print, Clear List and Select List) upon right clicking on the generated barcode series as displayed in the screen below:

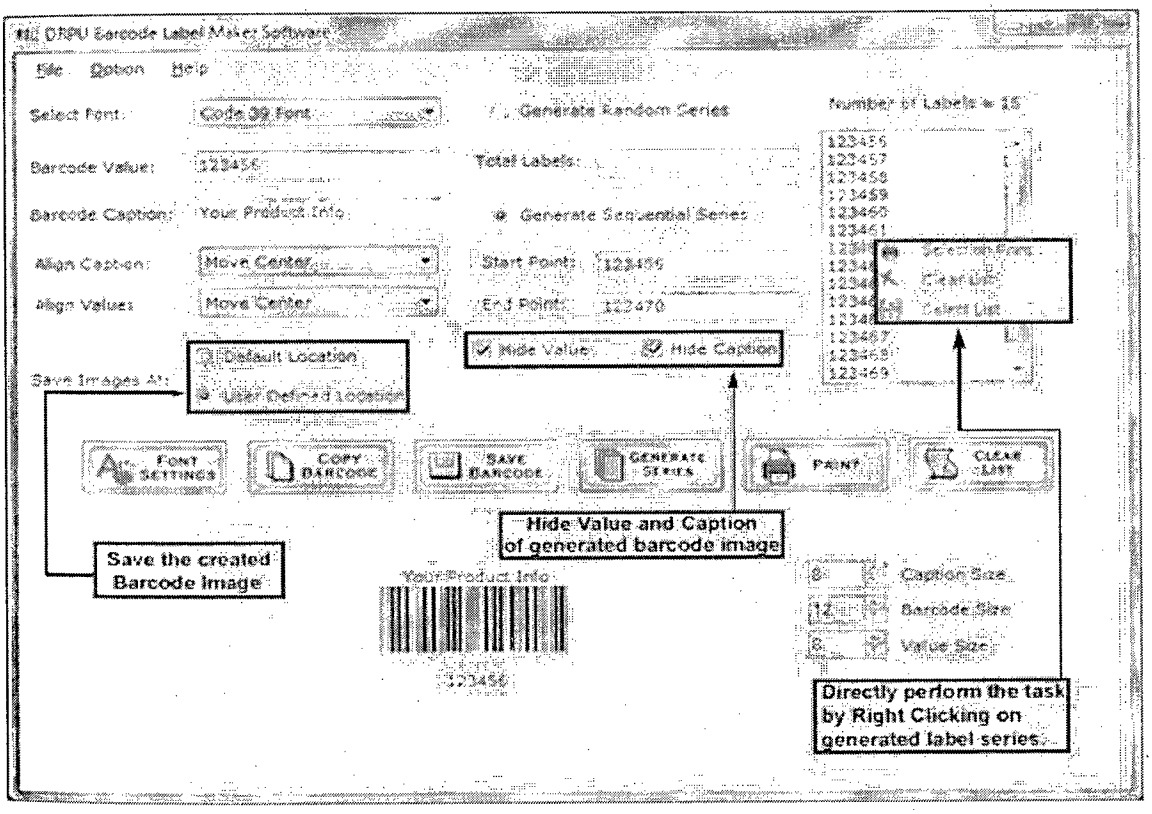


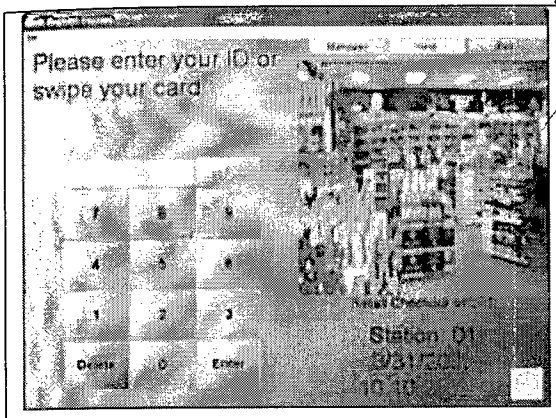
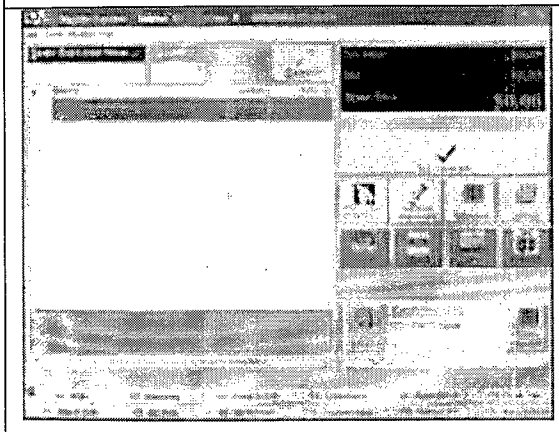
Figure 2.2 : Generating barcode functions

2.3.2 Cash Register Express in PCAmerica:

Steps to Getting Started
Login to the System

Cashiers must login to Cash Register Express before they can ring up customers or enter orders. The 'Login Screen' prompts cashiers for a user name and password, or alternatively the cashier can swipe their card to gain access.

Table 2.2 : Login to the system

	1. To log into CRE, simply enter your ID and password (default for the demo is '01' and 'admin'), enter the employees pin code or swipe the secure login card you configured in the 'Employee Maintenance' screen in Step 3 above.
	2. Once you have logged in to CRE the invoice screen will appear. Once your system is setup, most of your pos experience will take place in the invoice screen. From this screen you can easily access many of the setup options and do all of your cashiering.