ONLINE OPTICAL SHOP MANAGEMENT SYSTEM

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ABSTRACT

This thesis in title "Online Optical Shop Management System" which is a shop management system to manage optical shop business and it is implemented with inventory management. There are five (5) main modules in this system, which are log in and registration, inventory management, transaction management, staff management, and financial management. The problem statement of this thesis are the current management system is filing system to record the sales, customers, staff, stock record and there are no well inventory management is using and the record of the stock was not complete, only depend on the invoice they received as stock record. There are two (2) objectives of this thesis, which are to computerize the shop management system from manual system and to implement an inventory management system to manage the stock of the optical shop. This thesis is discussed on how the online optical shop management system to be implemented, the tools and programming languages used, and the resources needed in developing this system. Model Software Development Life Cycle (SDLC) is used to develop this project. There are seven (7) phases which are identifying system requirements, system planning, system analysis, system design, system implementation, system testing and system maintenance. The strength of OOSMS is implemented with the well inventory management to manipulate the inventory of the shop. Low level of stock quantities will be notified to the user automatically. This thesis had been successfully completed and the system is successfully developed and function able.

ABSTRACT

Tesis ini bertajuk "Online Optical Shop Management System", ia ialah satu sistem pengurusan untuk mengurus perniagaan bagi kedai cermin mata dan juga terdapat pengurusan barangan. Sistem ini terdapat lima (5) modul yang besar iaitu daftar masuk dan pendaftaran, pengurusan barangan, pengurusan bayaran, pengurusan kaki tangan dan pengurusan kewangan. Masalah yang telah dicatatkan dalam tesis ini ialah sistem yang diguna sekarang ialah sistem fail untuk merekod jualan, pelangan, kaki tangan dan baranga-barangan dengan satu lagi ialah tiada sistem daftar barang yang sempurna digunakan untuk menyimpan rekod barangan, hanya menggunakan invois yang terima untuk menjadikan rekod barangan. Terdapat dua (2) objektif bagi tesis ini, iaitu untuk menjadikan cara pegurusan dalam bentuk program atau kumputer dan untuk masukkan pengurusan barangan kedai dalam sistem untuk menguruskan barangan-barangan kedai. Sistem ini terdapat lima (5) modul yang besar iaitu daftar masuk dan pendaftaran, pengurusan barangan, pengurusan bayaran, pengurusan kaki tangan dan pengurusan kewangan. Tesis ini membincangkan tentang bagaimana "online optical shop management system" ini dilaksanakan, peralatan-peralatan dan bahasa program yang digunakan, dan sumber-sumber yang diperlukan dalam membina sistem ini. Modal Software Development Life Cycle (SDLC) ialah modal yang telah digunakan untuk membina projek ini. Terdapat tujuh (7) fasal dimana ialah mendapatkan keperluan sistem, merancangkan sistem, menganalisa sistem, membangunkan sistem, mencuba sistem and pemeliharaan sistem. Kelebihan sistem ini ialah ia terdapat satu daftar barang yang sumpurna untuk mengurus barangan-barangan dalam kedai.Bilangan barang yang sedikit akan diberitahu secara automatic kepada pengguna sistem ini. Tesis ini telah berjaya disiapkan dan sistem juga berjaya disiapkan dan boleh digunakan.

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LIST OF ABBREVIATIONS

GOSB	Goodrich Optical Sdn Bhd
DFD	Data Flow Diagram
ER	Entity Relationship
ICNO	Identity Card Number
ID	Identification Digit
IDE	Integrated Development Environment
ODBC	Open Database Connectivity
OLEDB	Object Linking and Embedding, Database
OOSMS	Online Optical Shop Management System
SDLC	Software Development Life Cycle
SQL	Structured Query Language

CHAPTER 1

INTRODUCTION

1.1 System Overview

Business is one of the most important economy generators for each country and since the dawn of the twentieth century, all business companies turned to technology to better improve their business chances and qualities. Thus, such is the reason of the development of this system. This system is developed for the optical business, where it will be implemented in each of the shop outlets of an optical company. The system name is Online Optical Shop Management System (OOSMS). The system is developed for the purpose of making management much more systematic, secure and efficient. OOSMS consist of five (5) main modules which are registration and login, inventory management, transaction management, staff management, and financial management. Capabilities of five (5) main modules are described in the Table 1.1.

Table 1.1: Modules and function list

Module	Function
Registration and login	- register and store clients, staff, branch and supplier information securely - login to the system
Inventory Management	- manage the status information of products - make statistic analysis on which products are selling fast and have to make an order from particular supplier. - purchase order can be made to order product and delivery order can be made when deliver the product to the others branch
Transaction Management	- select and sell the desired product quickly and precisely - collect the balance of the deposit payment - view transaction receipt, product sales report, and personal sales report
Staff Management	- manage the staff attendance and workflow - calculate staff salary and generate staff payroll - view staff payroll
Financial Management	- manage the financial of the company - holding every branch financial account to keep record on their earning

The system and its functions will provide the optical shop a computerized method of management which will help increase the efficiency and productivity of the outlet. Conclusively, once the system is developed and implemented it will increase the productivity of the business.

1.2 Problem Statement

There are two main problem faced by Goodrish Optical Sdn Bhd (GOSB). The two problem statements shown are:

i. The current management system is filing system to record the sales, customers, staffs, stocks record.

ii. There are no well inventory management is using and the record of the stock was not complete, only depend on the invoice they received as stock record.

1.3 Objective

The objectives to create OOSMS are:-

i. To develop a computerized and systematic online optical shop management system.

ii. To implement inventory management into the system to handle the stock management and keep record of the stock information.

1.4 System Scope

This system is design and developed for optical shop. Target users of this system are optical staffs and administrator. This system is an online application. This system contains of five (5) modules which are registration and login, inventory management, transaction management, staff management, and financial management. The system will develop by using bv.net (Visual Basic.net – ASP.net) and Microsoft SQL server 2005.

CHAPTER 2

LITERATURE REVIEW

2.1 Current System

The current system using now in GOSB is manually system, means that all the process on managing the shop business flow is written in paperwork. During the transaction process, they just only use paper receipt but not printed receipt. Besides, they do not have any record on the customer profile, and staff profile. If they want to refer back their customer eye degree, they only can refer back the receipt that give to the customer before to get their previous record on the eye degree. If need to find out the receipt, they have to check it one by one, so it take quite a long time. Furthermore, the daily sell they record down on a log book and end of the month they have to calculate it manually. Adding for the staff commission, they also need to refer back they receipt one by one to calculate the total sell on the particular staff. These processes are time consuming by do it one by one. The shop does not have any well inventory management at the same time. Overall system flow for GOSB is using traditional management system.

2.1.1 Apparatus

Tools that are being used in this manual system include log book, receipt and pens. Log book which is use to record daily sell that written by pen. For the receipt, also is manually written by using pen. Appendix A is an outlook of the receipt they using now.

2.2 Analysis of Existing System

This chapter is about the existing system that had been analyzed which is a optical shop management system.

2.2.1 Optical Shop Management System

Filopto is a software application which created by ACCRA Med Software Inc. This application is developed for optical shop to manage the business flow and consists of four main functions which are point of sale, front office, back office, and office manager. Figures below are showing the sub function inside every main function.

Point of sale

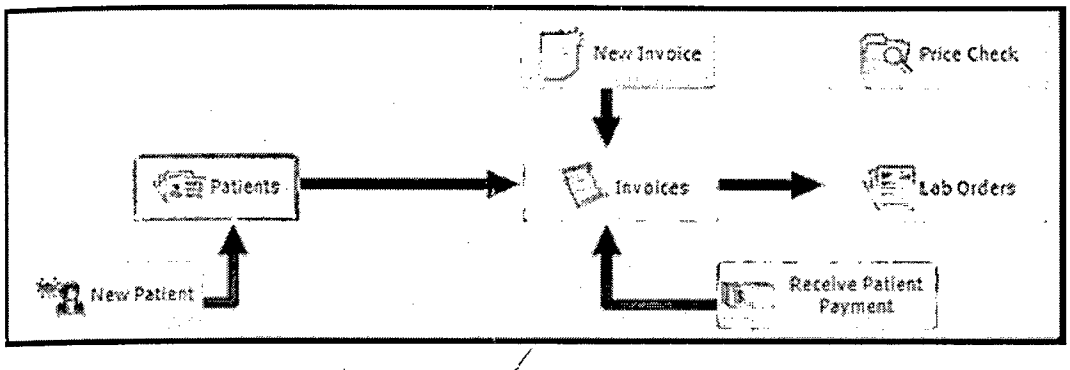

Figure 2.1: Point of sale navigator

Front office

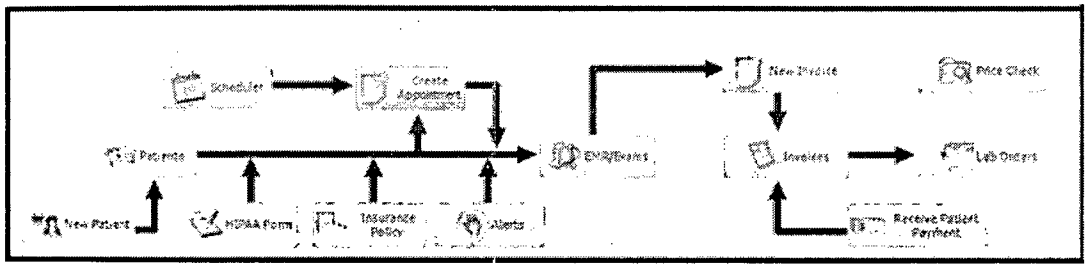

Figure 2.2: Front office navigator

Back office

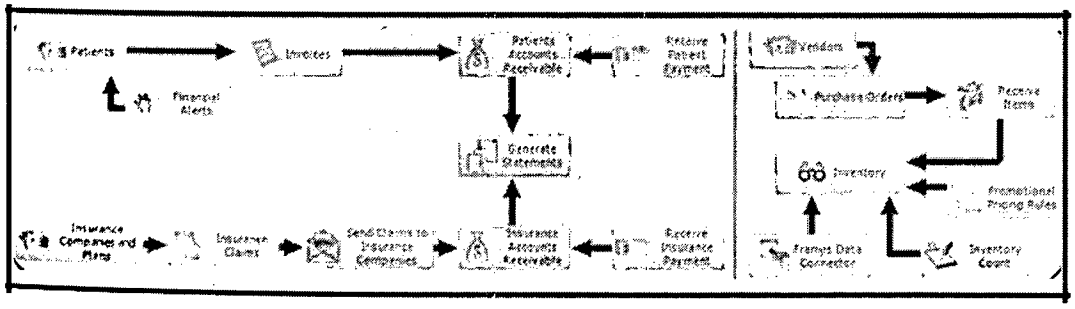

Figure 2.3: Back office navigator

Office manager

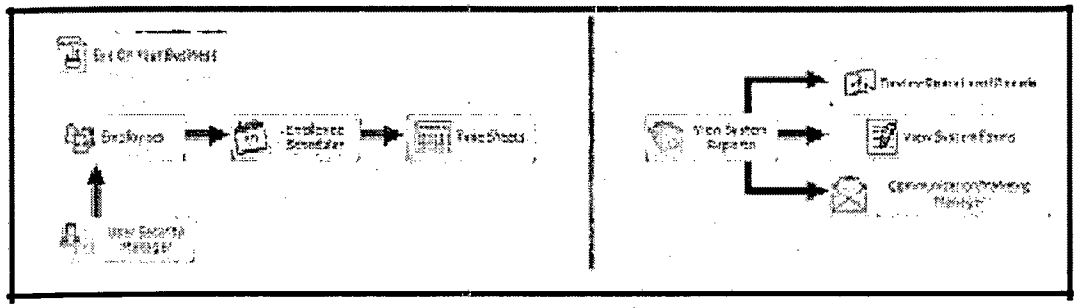

Figure 2.4: Office manager navigator

2.2.1.1 Overview Existing System Flow

An overview on how to use Filopto and some introduce on the components inside this system. I have to understand on the existing system flow and also the function that involved in this application, so that I can get some of their idea when I going to implement OOSMS. Not only the function, can get some idea on their design as well. The way on start using this application is shown below.

Log on to the application

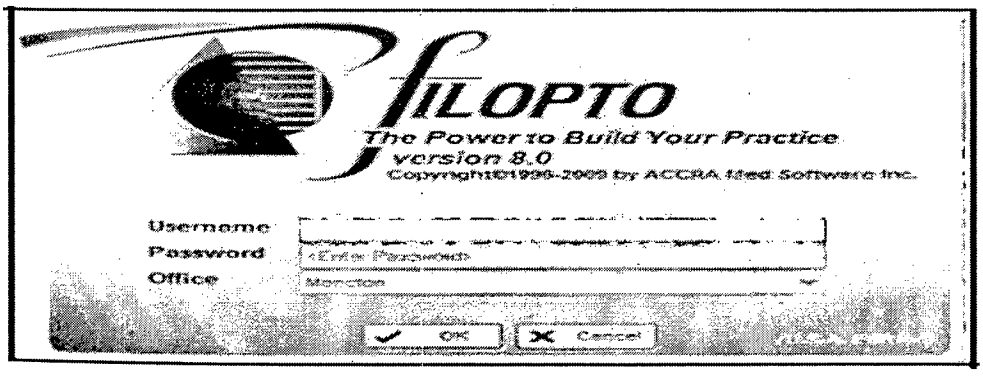

Figure 2.5: Log on page

The User Interface (Overview)

Filopto is known for its neat and intuitive user interface. The Filopto Interface is made up of three primary work areas:

i. The Master Navigation Bar located on the top of the screen

ii. The Master Activity buttons located in the center of the screen

iii. The Activity buttons & links located at the bottom of the screen.

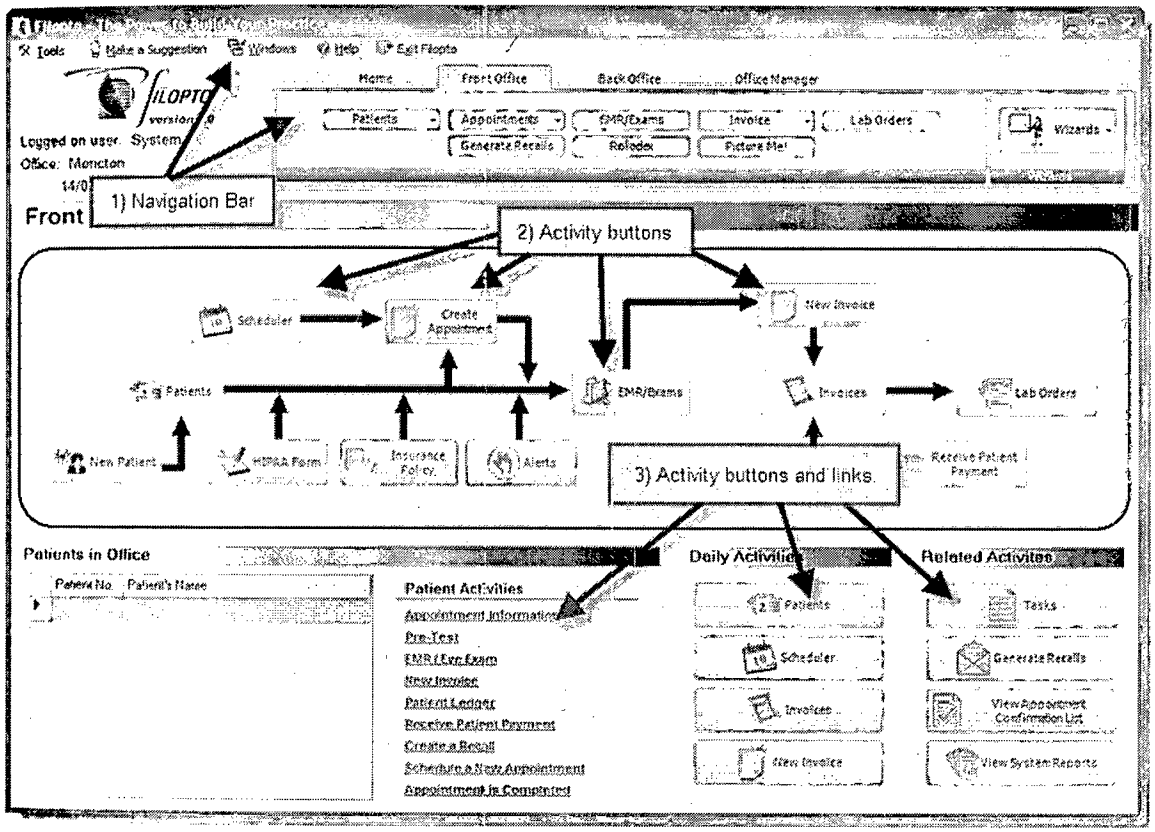

Figure 2.6: Overview of user interface

Master Navigation Bar

The Master Navigation bar controls and governs Filopto. Located at the top of the screen it contains the control functions of Filopto.

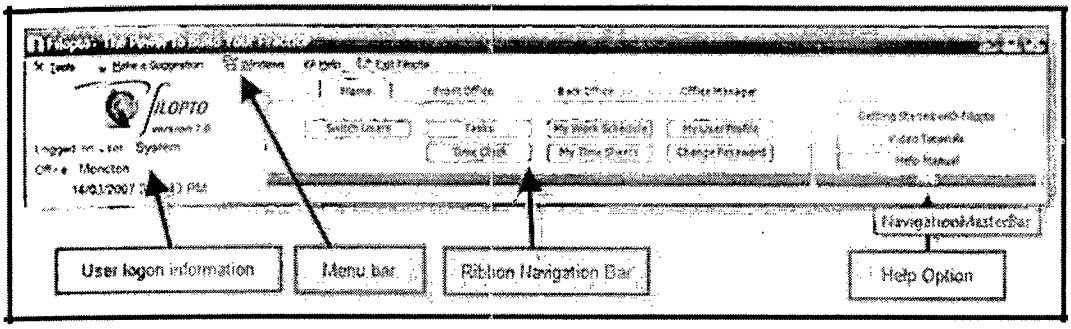

Figure 2.7: Master Navigation Bar

The **Ribbon Navigation Bar** divides Filopto into four (4) sections:

i. **Home:** The Home tab is the intro screen for the user giving him/her access to tasks and functions related to the user.

ii. **Front Office** : Activities normally associated to the front office staff such as patient management.

iii. **Back Office**: Activities normally done by the back office staff such as accounting and inventory.

iv. **Office Manager**: Activities normally done by the office manager such as managing employees, system and security settings, reporting and overseeing the daily activities of the office.

Navigation Bar

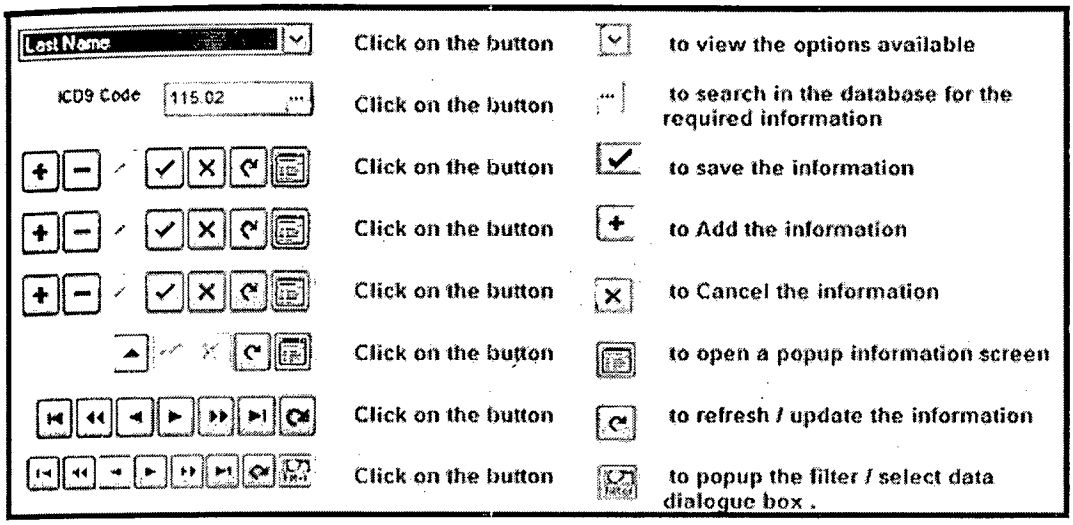

Figure 2.8: Navigation bar

Find Patient Profile

To quickly locate a patient file, use the Patient Manager option. For example using the Front Office tab the user can locate a patient file using:

i. The Front Office **Patients Menu** option

ii. Using the **Patients** button