**Inventory Management System**

**Diploma in Software Engineering**

**National Institute of Business Management-Colombo 7**

Project Title: Inventory Management System

Author: Name Index

Mr.A.B.S. Iduranga CODSE182F-022

Ms.B.M.A.K. Saransi CODSE182F-048

Mr.M.F.T.Ousmand CODSE182F-024

Ms N.G.D. Nayana CODSE182F-017

Supervisor: Mr. Keshan Narangoda

Institute: Management information system division

National institute of business management

Date:

The project is submitted the partial fulfilment of the requirement of the Diploma in Computer system design of National institute of business management.

**Declaration**

I certify that this project does not incorporate without acknowledgement, any material previously submitted for a diploma in any institution and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text.

I also hereby give consent for my project report, if accepted, to be made available for photocopying and for interlibrary loans.

And for the title and summary to be made available to outside organizations.

Student Name: Signature:

Mr.A.B.S. Iduranga ……………………………..

Ms.B.M.A.K. Saransi ………………………………

Mr.M.F.T.Ousmand ………………………………

Ms N.G.D. Nayana ………………………………

Certified by:

Supervisor Name: Mr. Keshan Naraangoda

………………………… ……………………………

Signature Date

**Abstract**

**Summary of the Project Carried Out**

The Methmina Distributors is a wholesale vehicle care products company in Kaduwela. We had to create a system for the existing system. We have identified the problems in the existing system and implement this new system which will be more helpful than the previous one.

Overall Summary,

* Chapter one describe company overview, project background, weakness of existing system, aims and objectives, proposed solutions and expected outcome.
* Chapter two describes all diagrams of the system that we hope to implement.
* Chapter three describes about the Interface and the report of our new system.
* Chapter Four describes conclusion and the references.

According to this order we can summarize all details about our new system. So completing this new system for them, we hope to archive their requirements as they want.

Every person will not be authorized to access the system. Only owner/admin has the ability to check on the login details of the users.

By implementing this new system, owner will get two reports of the day. By getting these two reports owner can get decision about the company. It will be a great opportunity for our new system.

**Acknowledgement**

First, we would like to express our gratitude to words the MIS Division of NIBM, Mr. Keshan Narangoda for his kind helps, Several Advices and guidance given throughout our project. Always He helps to correct project mistakes & help to modification points in this system. As well encourage us an every time.

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CHAPTER 1

INTRODUCTION

**Company Overview**

Methmina Distributors (MD) is a wholesale vehicle care products distribution company. The company is located in 444/b/1, Vihara Mawatha, Kothalawala, Kaduwela.

The company import vehicle care products from China and distribute products to buyers.

The following products are imported,

* Pitch Cleaner
* Engine Surface Degreaser
* Pitch Spot Cleaner
* Carnauba Car Wax
* Windshield Washer Additive
* Tire Foam Polish & Cleaner
* Wheel & Rim Cleaner
* Emergency Tire Weld Puncture Repair
* Plastic Renew Agent
* Multi-purpose Foam Cleaner

Etc.

Usually customers include suppliers and buyers.

Company has few laborers. Some laborers are permanent and others are hired. They use their own vehicle (lorry) and hired vehicles for their products transportation.

Methmina Distributors import and distribute products to buyers. Usually customers include suppliers and buyers.

**Weaknesses of the existing System**

Currently, The Company handles manual inventory control system, which records Vehicle care products.

Maintenance equipment and sales in manual system in the form of an Excel sheet. Therefore, we suggested to develop a computerized system for this company. A software system will make the work easier and cost effective than working using Excel sheets.

Our primary objective is to give handful of solutions to save time and cost incurred in business premises through automated system. By introducing a Software, the problems that companies are facing against this type of recording in sheets will be solved

**Aim and Objectives**

**Aim**

Our aim is to develop a computerized inventory management system to overcome weakness of existing system.

**Objectives**

To develop a computer based software system to provide the following for the course unit administration.

* Provide easy accessible information for all appropriate.
* Increase efficiency
* User can easily access the data and information consuming much time.
* Generating reports much easier

**Proposed Solution**

Our Inventory Management System can help eliminate the Manual Process and effectively manage item level inventory movements. The System Design addresses all major challenges of manual count inventory system such as,

* item misplacement
* incorrect identification
* incorrect counting

It enables timely and accurate information for better decision-making such as,

* stock reports once a day
* per month
* A year stock allocation and optimize stock availability and as such procuring solutions, which can maximized the enterprise profitability.

**Expected Outcomes**

* Ability to Search, Add, Update, Delete customer and supplier details.

* By completing this owner will get four reports. At the end of the day he will get the daily sales report. At the end of the month he will get the sales return ,purchase order return reports and once a six months he will get the forecasting report
* Owner can update the shock details.
* If owner wants to view the stock details, he can view from the new system.
* By implementing the new system cashier can generate a bill easily. Customer can get a fully detailed invoice.

CHAPTER 2

ANALYSIS

USE CASE DIGRAM OF PROPOSED SYSTEM

CLASS DIAGRAM OF PROPOSED SYSTEM

SEQUENCE DIAGRAM OF PROPOSED SYSTEM

PROPOSED EER DIAGRAM

CHAPTER 3

DESIGN

DATABASE DESIGN

**Table Number:** 01

**Table Name:** Customer Master File

**Primary Key:** Cus\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| Cus\_no | Number | 05 | Customer Number |
| Cus\_na | Varchar | 08 | Customer Name |
| Cus\_add | Varchar | 05 | Customer Address |
| Home\_no | Varchar | 10 | Home Number |
| Street | Varchar | 15 | Street |
| City | Varchar | 15 | City |
| Cus\_Tel | Number | 10 | Customer Telephone Number |
| Cus\_email | Varchar | 20 | Customer Email |
| Record size 88 | | | |

**Table Number:** 02

**Table Name:** Order Details File

**Primary Key:** So\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| So\_no | Int | 10 | Sales Order Number |
| Qnty | Int | 10 | Quantity |
| So\_date | Date/Time | 8 | Date |
| Record Size 28 | | | |

**Table Number:** 03

**Table Name:** Item Master File

**Primary Key:** It\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| It\_no | Int | 10 | Item Number |
| Price | Currency | 10 | Price |
| In\_Stock\_Qnty | Int | 10 | In Stock Quantity |
| Out\_Stock\_Qnty | Int | 10 | Out Stock Quantity |
| It \_na | Varchar | 10 | Item Name |
| Descript | Varchar | 50 | Description |
| Record size 100 | | | |

**Table Number:** 04

**Table Name:** Sales Return Details File

**Primary Key:** SRN\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| SRN\_no | Int | 6 | Sales Return Notice Number |
| SRN\_date | Date / Time | 10 | Date |
| Price | Currency | 10 | Price |
| Qnty | Int | 10 | Total Quantity |
| Reason | Varchar | 50 | Reason |
| Record size 86 | | | |

**Table Number:** 05

**Table Name:** CustomerInvoice Detail File

**Primary Key:** In\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| In\_no | Int | 6 | Invoice Number |
| Sub\_tot | Currency | 10 | Price |
| GST | Currency | 10 | Good service Tax |
| Date | Date / Time | 10 | Date |
| Discount | Currency | 10 | Discount |
| Record Size 46 | | | |

**Table Number:** 06

**Table Name:** Supplier Master File

**Primary Key:** Supplier\_ID

|  |  |  |  |
| --- | --- | --- | --- |
| Filed Name | **Filed Type** | **Field Size** | **Description** |
| Supplier\_ID | Number | 05 | SupplierId |
| Supplier\_Name | Varchar | 15 | Supplier First Name |
| Address | Varchar | 30 | Supplier Address |
| Country | Varchar | 10 | Country |
| Contact | Varchar | 12 | Contact |
| Date | Date / Time | 10 | Date |
| Email | Varchar | 30 | Email |
| Record size 112 | | | |

**Table Number:** 07

**Table Name:** Supplier Invoice Details File

**Primary Key:** In\_no

|  |  |  |  |
| --- | --- | --- | --- |
| Filed Name | **Filed Type** | **Field Size** | **Description** |
| In\_no | Int | 10 | Invoice Number |
| Date | Date / Time | 10 | Date |
| Qnty | Int | 10 | Quantity |
| Sub\_tot | Currency | 10 | Total |
| Record size 40 | | | |

**Table Number:** 08

**Table Name:** Purchase Order Details File

**Primary Key:** PO\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| PO\_no | Int | 10 | Purchase Order Number |
| Price | Currency | 10 | Price |
| Qnty | Int | 10 | Quantity |
| PO\_date | Date / time | 10 | Purchase Order Date |
| Sub\_tot | Currency | 10 | Sub total |
| Record size 50 | | | |

**Table Number:** 08

**Table Name:** Purchase Order Return Detail File

**Primary Key:** PRN\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| PRN\_no | Int | 10 | Purchase Order Return Number |
| PRN\_date | Date / Time | 10 | Date |
| Qnty | Int | 10 | Quantity |
| Price | Currency | 10 | Price |
| Reason | Varchar | 50 | Reason |
| Record size 90 | | | |

**Table Number:** 08

**Table Name:** GRN Detail File

**Primary Key:** GRN\_no

|  |  |  |  |
| --- | --- | --- | --- |
| **Filed Name** | **Filed Type** | **Field Size** | **Description** |
| GRN\_no | Int | 10 | GRN Number |
| Date | Date / Time | 10 | Date |
| Qnty | Int | 10 | Quantity |
| Record size 30 | | | |

INTERFACE DESIGN

CHAPTER 4

CONCLUTION

**Conclusion**

Inventory Management is essential to every company, having inventories. The companies like Spare parts & maintenance equipment need to have stock, but in such amount to avoid out of stock and overstock situations. Inventory Management can improve company’s inventory control existing situation and decrease costs of the company. By a computerized system, it can support several forecasting methods and changes to the business environment.

**Reference**

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