

**MORI HANDBAG MANAGEMENT SYSTEM (MHMS)**


LIM SHIAU PIN

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

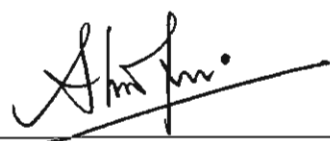
**DECLARATION**

I hereby declare that this project entitled  
**MORI HANDBAG MANAGEMENT SYSTEM**  
**(MHMS)**

is written by me and is my own effort and that no part has been plagiarized  
without citations.

STUDENT :  \_\_\_\_\_  
(LIM SHIAU PIN)

DATE: 01/07/2011

SUPERVISOR :  \_\_\_\_\_  
(PROF. MADYA SHAHDAN BIN  
MD. LANI)

DATE: 05/07/2011

MORI HANDBAG MANAGEMENT SYSTEM

LIM SHIAU PIN

This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Computer Science (Database Management)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2011

**BORANG PENGESAHAN STATUS TESIS\***

JUDUL: MORI HANDBAG MANAGEMENT SYSTEM

SESI PENGAJIAN: 2010/2011

Saya LIM SHIAU PIN  
(HURUF BESAR)

mengaku membenarkan tesis (PSM/Sarjana/Doktor/Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

1. Tesis dan projek adalah hakmilik Universiti Teknikal Malaysia Melaka.
2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan penukaran antara institusi pengajian tinggi.
4. \*\*Sila tandakan(/)

\_\_\_\_\_ SULIT (Mengandungi maklumat yang berdarjah Keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)

\_\_\_\_\_ TERHAD (Mengandungi maklumat TERHAD yang Ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

\_\_\_\_\_ / \_\_\_\_\_ TIDAK TERHAD



(TANDATANGAN PENULIS)



(TANDATANGAN PENYELIA)

Alamat tetap: 128-13-16, Sri Pelangi  
Condominium, Jalan Genting Kelang  
53300, KL

PROF. MADYA SHAHDAN BIN MD.  
LANI

Tarikh: 01/07/2011

Tarikh: 05/07/2011

## DEDICATION

This report is dedicated to my beloved parents, friends and supervisors who have provided encouragement, motivation and guidance all the way during the completion of the report.

## ACKNOWLEDGEMENTS

First and foremost, I would like to thank my supervisor, Prof. Madya Shahdan Bin Md. Lani because of his generous heart and patient to accept me as one of his students under his supervision. Special thanks also dedicated to him for all comments, idea, and guidance from the first day I started this project.

Not forgetting my beloved family, I would like to forward my love to them for their continuous supports during my study period, their patience and kindness. Appreciation also goes to my friends that always give their supports, opinions, and advices for me to complete this report. Lastly, I would like to thank to everyone who has contributed during my Final Year Project. Your kindness and cooperation in the completion of my Final Year Project is appreciated.

## ABSTRACT

Mori Handbag Management System (MHMS) is a computerized system specially designed for shops selling women handbag. The current systems had been developed in our country are done manually where all the transactions are hand-written and this is very cumbersome. The purpose of doing this project is to improve the current system by computerizing all the transactions record. The target users for this system include manager and staff. The system also requires a system administrator. Different users have different types of access for the purpose of security. The admin have full privileges to manage the back-end process such as managing staff, auditing and backup or restore the database. Meanwhile, the staffs have privileges to manage daily transaction which involves customer, supplier, product, customer order, order supply, received order and payment transaction. While manager has privileges in managing all those records and generating report like admin but they are restricted from adding new staff, not able to perform backup or restore.

## ABSTRAK

Mori Handbag Management System (MHMS) merupakan satu sistem pengkomputeran yang direka khas untuk digunakan dalam kedai yang menjual beg tangan wanita. Sistem terkini yang diguna dalam pasaran merupakan sistem fail yang tidak berkesan dan membazirkan masa. Objektif untuk melakukan projek ini adalah untuk menkomputerkan semua urusan niaga dalam penjualan beg tangan. Sasaran pengguna untuk sistem ini termasuklah pengurus dan staf yang lain. Sistem ini juga memerlukan seorang admin. Pengguna mempunyai kuasa yang berbeza dalam mengakses data dan modul sistem untuk keselamatan sistem. Admin mempunyai keistimewaan penuh untuk mengurus proses belakang pangkalan data seperti menguruskan staf, mengaudit dan *backup* atau pemulihan. Manakala, staf yang lain hanya mempunyai keistimewaan untuk mengurus proses harian seperti menguruskan pelanggan, stok, pembekal, pesanan stok daripada pelanggan, pesanan stok kepada pembekal, menerima pesanan stok dan transaksi pembayaran. Sementara itu, pengurus pula mempunyai hak dalam menguruskan semua data dan menghasilkan laporan seperti admin tetapi mereka adalah dihadkan daripada menambah pekerja baru, tidak boleh melakukan *backup* atau pemulihan.



## Table of Contents

CHAPTER	SUBJECT	PAGE
	PROJECT TITLE	i
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xii
	LIST OF FIGURES	xiii
	LIST OF ABBREVIATIONS	xiv
	LIST OF ATTACHMENTS	xv
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
	1.2. Problem Statements	2
	1.3 Objective	3
	1.4 Project Scope	4
	1.4.1 Modules	4
	1.4.2 Target User	5
	1.5 Project Significance	6
	1.6 Expected Output	7
	1.7 Conclusion	8

<b>CHAPTER II</b>	<b>Literature Review and Project Methodology</b>	
	2.1 Introduction	9
	2.2 Facts and Findings	10
	2.2.1 Domain	10
	2.2.2 Existing System	10
	2.2.2.1 Tiara Management System	11
	2.2.3 Technique	14
	2.3 Proposed Methodology	15
	2.4 Project Requirements	19
	2.4.1 Software Requirements	19
	2.4.2 Hardware Requirements	19
	2.4.2 Other Requirements	20
	2.5 Project Schedule and Milestone	20
	2.6 Conclusion	20
<b>CHAPTER III</b>	<b>ANALYSIS</b>	
	3.1 Introduction	21
	3.2 Problem Analysis	22
	3.3 Requirement Analysis	23
	3.3.1 Data Requirement	24
	3.3.2 Functional Requirement	24
	3.3.3 Non-functional Requirement	26
	3.3.4 Others Requirement	27
	3.3.4.1 Software Requirements	27
	3.3.4.2 Hardware Requirements	28
	3.3.4.3 Network Requirements	28
	3.4 Conclusion	28
<b>CHAPTER IV</b>	<b>DESIGN</b>	
	4.1 Introduction	30
	4.2 High-level Design	30

4.2.1 System Architecture	31
4.2.2 User Interface Design	32
4.2.2.1 Navigation Design	32
4.2.2.2 Input Design	34
4.2.2.3 Output Design	34
4.2.3 Conceptual and Logical Design	34
4.2.3.1 Business Rules	34
4.2.3.2 Entity Relationship Diagram	36
4.2.3.3 Data Dictionary	36
4.2.3.4 DBMS Selection	36
4.3 System Architecture	37
4.3.1 Software Design	38
4.3.1.1 Login Page	38
4.3.1.2 User authorization	38
4.3.1.3 Manage Records	38
4.3.1.4 Ordering Product	39
4.3.1.5 Receive Order	39
4.3.1.6 Payment Transaction	39
4.3.1.7 Report	39
4.3.1.8 Backup and Restore	40
4.3.1.9 Audit Details	40
4.3.1.10 System Configuration	40
4.3.2 Physical Database Design	40
4.3.2.1 Create Database	41
4.3.2.2 Create Table	41
4.3.2.3 Create New User	47
4.3.2.4 Grant Privileges to User	47
4.3.2.5 Data Security Mechanism	48
4.3.2.6 Data Contingency	49
4.4 Conclusion	50
<b>CHAPTER V</b>	<b>IMPLEMENTATION</b>
5.1 Introduction	51

5.2 Development Environment	51
5.2.1 Software Development Environment Setup	51
5.3 Database Implementation	53
5.3.1 Data Loading	54
5.3.2 Data Access	54
5.4 Software Configuration Management	56
5.4.1 Configuration Environment Setup	56
5.4.2 Version Control Procedure	57
5.5 Implementation Status	58
5.6 Conclusion	61
<b>CHAPTER VI TESTING</b>	
6.1 Introduction	63
6.2 Test Plan	64
6.2.1 Test Organization	64
6.2.2 Test Environment	66
6.2.3 Test Schedule	67
6.3 Test Strategy	69
6.3.1 Classes of Tests	70
6.4 Test Design	72
6.4.1 Test Description	72
6.4.2 Test Data	72
6.5 Test Result and Analysis	72
6.6 Conclusion	73
<b>CHAPTER VII PROJECT CONCLUSION</b>	
7.1 Observation on Weakness and Strengths	74
7.1.1 Weakness of Mori Handbag Management System (MHMS)	74
7.1.2 Strengths of Mori Handbag Management System (MHMS)	75

7.2 Propositions for Improvement	76
7.3 Contribution	76
7.4 Conclusion	77
<b>REFERENCES</b>	<b>78</b>
<b>APPENDICES</b>	<b>79</b>

## LIST OF TABLES

TABLE	TITLE	PAGE
2.1	Software Requirements	19
3.1	Software Requirements	27
3.2	Hardware Requirements	28
5.1	Environment Setup	52
5.2	Server Configuration	53
5.3	Database Environment Setup	53
5.4	MHMS Version	57
5.5	Implementation Status	58
6.1	MHMS Test Organization	65
6.2	Test Environment	66
6.3	Test Schedule	67
6.4	White-Box Testing and Black-Box Testing	69

## LIST OF FIGURES

DIAGRAM	TITLE	PAGE
2.1	Main Menu in TMS	12
2.2	Product Information in TMS	12
2.3	Order Information in TMS	13
2.4	Payment transaction in TMS	13
3.1	Flow Chart of Tiara Management System	22
3.2	Context Diagram of MHMS	24
3.3	DFD of Mori Handbag Management System	25
4.1	Two Tier Architecture	31
4.2	Navigation Design of MHMS	33
4.3	Full Backup	49
4.4	Full Restore	49
5.1	Architecture for MHMS	52
5.2	Statement using restricting method	54
5.3	Statement using sub-queries	55
5.4	Statement using Join method	55
5.5	Statement using aggregate function	56

## LIST OF ABBREVIATIONS

<b>ERD</b>	-	<b>Entity Relationship Diagram</b>
<b>LAN</b>	-	<b>Local Area Network</b>
<b>MHMS</b>	-	<b>Mori Handbag Management System</b>
<b>TMS</b>	-	<b>Tiara Management System</b>
<b>DBA</b>	-	<b>Database Administrator</b>



**LIST OF ATTACHMENTS**

<b>ATTACHMENT</b>	<b>TITLE</b>	<b>PAGE</b>
A	Milestones	79
B	Data Requirement	81
C	Input Design	86
D	Output Design	90
E	Entity Relationship Diagram	105
F	Data Dictionary	106
G	Software Design	112
H	Test Description	134
I	Test Data	158
J	Test Result and Analysis	165
K	User Manual	185
L	Proposal	214

## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

The Mori Handbag Management System (MHMS) is designed according to the requirement need by the handbag company. The system to be developed is divided into two main parts which are the front end that consist of the user interface to communicate with the user and the background process which is the database level.

The Mori Handbag Management System (MHMS) is already exists in the market currently but it is lack of data consistency and data transfer capability because most of the records are kept manually. This may be cumbersome in keeping and managing huge amount of records. Besides that, unauthorized person may have access to the database since most of the current system is lack of database security. This may cause loss of company profit due to the lost of important data.

Therefore, in order to improved the current system, there will be new features or modules added to the system that will be developed. The new feature that will be included is audit trail to keep track the person has been modifying the data and audit log to keep track that has been log on or log off in the system. In addition, the system also will be upgraded by generating report which enables admin or manager to analyze the

report such as the high demand of handbags that have been sold in the shops. Besides that, marketing research can be done by referring to the statistic reports for each product.

In the aspect of database level, the security database will be maintained by providing automatically scheduling database backup or restore when the database is corrupted. In addition, access controls, roles and privileges are also implemented so that the system can be accessed by user with sufficient privileges. The implementation of the database security is to fulfill the C.I.A triangle of the database security principle which is confidentiality, integrity and availability of the database.

## **1.2 Problem Statements**

### **i. Time consuming in handling huge amount of data**

It is time consuming in handling records that are store manually. Searching and updating the data may cause a lot of cumbersome. Besides that, problems such as data inconsistency, redundancy and anomalies will happen.

### **ii. Lack of data control access**

The company important information such as customer information is not kept safely. Unauthorized person may have access to the database.

### **iii. Lack of statistic report for each product**

The manager cannot analyze the report because it is too general such as only the company's profit is showed. Besides that, it is hard to follow up on the future order that need to make from the suppliers.

**iv. Lack of database security**

Insufficient database security will violate the confidentiality, integrity and availability of the data. In addition, important and private information of the company will get lose if don't have proper database backup when the database is corrupted.

**1.3 Objectives**

**i. To computerize all the management task**

This system computerizes all the management task of the information. Hence, it makes the management task more easy and convenient.

**ii. To enable access control on confidential files**

This system only enable authorized user to login and perform the management task. Different user will have different views of data based on the users' position. Besides that, roles and privileges are implemented so that the system can be accessed by user with sufficient privileges.

**iii. To generate analytical report**

To help the administrator or manager to analyze the report such as the high demand handbags. Besides that, marketing research can be done by referring to the statistic reports for each product.

**iv. To ensure the database to be more secure**

Security measures such as backup and restore will be done to maintain the confidentiality, integrity and availability of the data.

## **1.4 Project Scope**

The scope of the Mori Handbag Management System not only covers the front end of the system but also covers the background process which is the management of the database level.

### **1.4.1 Modules**

**i. Data Management Module**

- This module is used to manage all the information in the system including staff, customers, orders, products and payment transaction. This yields effective and efficient management of the information of the system.

**ii. Stored Procedure and Trigger Module**

- This module is used to update the stocks automatically each time a transaction record is made.

iii. Audit Trail and Audit Log

- This module is used to keep track the operation that has been done in database such as user log in or log off and which table has been modified.

iv. Report Module

- This module allows the admin or manager to analyze the report such as high demand handbags that have been sold.

v. Database Administration Module

- As for database system level, user will be created with specific roles and privileges so that only certain user is allowed to perform certain operation in the database.

vi. Backup and Restore Module

- This module enable the system to backup the database automatically physically and logically and will perform database restore if there is any database failure happens. Therefore, data is protected from being damage or data loss.

### 1.4.2 Target User

i. Admin

- The administrator enables to register new staff and manage the staff's information.

- The administrator enables to perform administrator role such as database backup or restore and audit trail.
- The administrator enables to analyze report and configure the system for dynamic changes.

#### ii. Manager

- The manager can manage and access all the records in the system which includes managing the staff, customers, products, orders and payment transaction records.
- The manager can manage to analyze report.

#### iii. Staff

- The staff is responsible in managing the transaction between the customers and the company. The staff has limited privileges in managing the customers, products, orders and payment transaction records.

## 1.5 Project Significance

With computerized system replacing the manual transaction process, the management process becomes more efficient. All the records are kept and store systematically without requiring many human power to manage it. Therefore, huge amount of transaction can be done in a shorter time.

Through the Mori Handbag Management System, all the record access are restricted and monitored automatically. Each user can have specific levels of access to

various data types. Unauthorized record accesses and manipulation can be prevented. All the records are also kept up to date and confidential. Besides that, the audit trail and audit log can keep track which user has log on or log off the system and keep track which table in the database has been modified. As for the manager, he/she can view the report in more detailed and analysis can be made from the report.

By covering most of the requirements of the users, Mori Handbag Management System definitely yields a lot of benefits to the handbag company. It is not only improving customer service of the handbag company but also the efficiency of the transaction process. Besides that, the database will be backups physically and logically regularly. User can perform backup and restore to prevent data loss if any failure occurs.

## **1.6 Expected Output**

The development of the Mori Handbag Management System will bring several benefits to the handbag company. The system makes the management task more effective since the entire managing task is computerized. The system to be developed will also provide a user friendly interface and proper guidance in system functionality. Interface plays an important role in communicating the users and the system. User friendly interface helps the user to get familiar with the system in a shorter time.

Before using this system, user need to provide correct user ID and password in order to log in to the system. This is to authenticate the identity of the user so that only authorized user can log in and perform specific task. The tasks that have been included are registering customer as member, viewing report, display the products information, calculate payment for the customer, and backup or restore the database.

At database level, roles and privileges will be conducted so that only certain users can perform specific task. This is to maintain the security of the database. The