

BORANG PENGESAHAN STATUS TESIS

JUDUL: E-RUMAHKU SALES SYSTEM

SESI PENGAJIAN: 2007/2008

Saya HAMIRA BINTI MAT NOH

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 pertukaran 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 telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

_____ TIDAK TERHAD


(TANDATANGAN PENULIS)


(TANDATANGAN PENYELIA)

Alamat tetap: No.73, Kpg Stunggang,
Melayu,

Lundu, Sarawak.

Tarikh: 28 APRIL 08

PUAN SYAHIDA MOHTAR

Nama Penyelia

Tarikh: 30 APRIL 08

CATATAN: *Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)

** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

E-RUMAHKU SALES SYSTEM

HAMIRA BINTI MAT NOH

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

**FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2008**

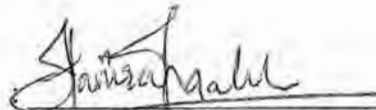
DECLARATION

I hereby declare that this project report entitled

E-RUMAHKU SALES SYSTEM

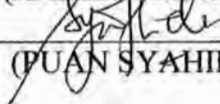
is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT



(HAMIRA BINTI MAT NOH)Date: 29 APRIL 08

SUPERVISOR :



(PUAN SYAHIDA MOHTAR)Date: 30 APRIL 08

DEDICATION

To my beloved father and mother,
a million thanks for the greatest support and motivation...

To all my friends who experiencing the
ups and down for completing this thesis, this is the sweetest moment we have
ever experience together and hopefully we can cherish it forever...

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Mrs. Syahida binti Mohtar for giving assistant to complete this project successfully.

I would also like to thank my beloved parents who have been giving me support and motivation throughout my project.

Last but not least, my thank goes to my friends who is support and help me directly or indirectly.

Thank you.

ABSTARCT

Project Sarjana Muda is a core subject for final year student who takes Bachelor of Computer Science in Universiti Teknikal Malaysia Melaka. This subject purpose to give an experience in order to build the real application before faces real working environment. The title of the project is E-Rumahku Sales System which implies fuction such as booking, checking status, update status, backup, manage news and report. This web base system develop for METACORP Melaka in order to solve the cumbersome manual traditional system were develop for E-Rumahku Sales System. Methodology Waterfall is use for develop this system. Software that provide to develop this system is Macromedia Dreamweaver MX, which is used for design interface and Xampp to run the system. Hardware that used to develop the system is processor, memory, mainboard, mouse and hard disk.

ABSTRAK

Projek Sarjana Muda merupakan subjek wajib yang perlu diambil oleh semua pelajar tahun akhir Ijazah Sains Komputer di Universiti Teknikal Malaysia Melaka. Subjek ini memberi pengalaman kepada pelajar dalam membuat sistem yang sebenar sebelum melangkah kea lam pekerjaan. Tajuk bagi Projek Sarjana Muda ini adalah E-Rumahku Sales System yang memiliki fungsi seperti tempahan rumah, kemaskini tempahan, menyemak status tempahan rumah, sokongan data ,pengurusan berita baru dan laporan. Sistem berbentuk laman web ini dibangunkan untuk METACORP Melaka bagi menyelesaikan masalah capaian data yang asalnya dilaksanakan secara tradisional. Metodologi “Waterfall” digunakan untuk membangunkan sistem ini. Perisian yang digunakan untuk membangunkan sistem ini adalah “Macromedia Dreamweaver MX” dimana perisian ini digunakan untuk merekabentuk antara muka atau “interface” untuk sistem ini and Xampp digunakan untuk melaksanakan perjalanan sesebuah sistem. Perkakasan yang digunakan untuk membangunkan sistem ini adalah “processor”, “memory” “memory”, tetikus dan “hard disk”.

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENT	vii
	LIST OF TABLES	xii
	LIST OF FIGURES	xiv
	LIST OF ABBREVIATIONS	xvi
	LIST OF APPENDICES	xvii
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
	1.2 Problem Statement(s)	2
	1.3 Objective	3
	1.4 Scope	3
	1.5 Project Significance	5
	1.6 Expected Output	5
	1.7 Conclusion	6

CHAPTER II LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1	Introduction	7
2.2	Facts and Finding	8
	2.2.1 Domain	9
	2.2.2 Existing System	9
	2.2.2.1 Case Study 1:	11
	2.2.3 Technique	11
2.3	Project Methodology	15
	2.3.1 System Development Methodology	16
	2.3.2 Database Lifecycle (DBLC)	17
	2.3.2.1 Database Initial Study	18
	2.3.2.2 Database Design	18
	2.3.2.3 Implementation and Loading	19
	2.3.2.4 Testing and Evaluation	19
	2.3.2.5 Operation	20
	2.3.2.6 Maintenance and Evaluation	20
2.4	Project Requirements	22
	2.4.1 Software Requirement	22
	2.4.1.1 Equipments/Development Tools	22
	2.4.1.2 Operating System/Server	22
	2.4.1.3 Database System	22
	2.4.2 Hardware Requirement	23
	2.4.3 Other Requirements	23
2.5	Project Schedule and Milestones	24
	2.5.1 Project Schedule	24
	2.5.2 Gantt Chart	25
2.6	Conclusion	26

CHAPTER III ANALYSIS

3.1	Introduction	27
3.2	Problem Analysis	27
3.2.1	Background of Current System	27
3.2.1.1	Flowchart for Current System	29
3.2.2	Problem Analysis of Current System	33
3.3	Requirement Analysis	33
3.3.1	Data Requirement	33
3.3.2	Functional Requirement	35
3.3.2.1	Analysis on new system	35
3.3.2.2	Context Diagram to Be System	36
3.3.2.3	Data Flow Diagram to Be System	37
3.3.3	Non-Functional Requirement	48
3.3.4	Other Requirements	48
3.3.4.1	Software Requirement	48
3.3.4.2	Hardware Requirement	52
3.3.4.3	Network Requirement	52
3.4	Conclusion	53

CHAPTER IV DESIGN

4.1	Introduction	54
4.2	High-Level Design	55
4.2.1	System Architecture	55
4.2.2	User Interface Design	58
4.2.2.1	Navigation Design	59
4.2.2.2	Input Design	61
4.2.2.3	Output Design	75
4.2.3	Conceptual and Logical Database Design	76
4.2.3.1	Conceptual Database Design	76
4.2.3.2	Logical Database Design	79
4.2.3.3	DBMS Selection	80

4.3	Detail Design	80
4.3.1	Software Specification	81
4.3.2	Physical Database Design (Schema level – DDL/DCL)	91
4.3.2.1	Data Definition Language (DDL)	91
4.3.2.2	Design Security Mechanism	96
4.3.2.3	Database Contingency (Backup and Recovery mechanism)	99
4.4	Conclusion	101

CHAPTER V IMPLEMENTATION

5.1	Introduction	102
5.2	Software Development Environment Setup	103
5.3	Database Implementation	108
5.3.1	Displaying data from multiple table	108
5.3.2	Aggregation Data Using Group Function	108
5.4	Software Configuration Management	109
5.4.1	Configuration Environment Setup	109
5.4.2	Version Control Procedure	112
5.5	Implementation Status	114
5.6	Conclusion	115

CHAPTER VI TESTING

6.1	Introduction	116
6.2	Test Plan	117
6.2.1	Test Organization	117
6.2.2	Test Environment	118
6.2.3	Test Schedule	118
6.3	Test Strategy	120
6.3.1	Classes of Tests	120

6.4	Test Design	122
6.4.1	Test Description	122
6.4.2	Test Data	127
6.5	Test Case Result and Analysis	130
6.6	Conclusion	130
CHAPTER VII CONCLUSION		
7.1	Observation on Weaknesses and Strengths	131
7.1.1	Weaknesses	131
7.1.2	Strengths	131
7.2	Proposition for Improvement	132
7.3	Contribution	132
7.4	Conclusion	132
REFERENCES		133
BIBLIOGRAPHY		135

LIST OF TABLES

TABLE	TITLE	PAGE
2.1	Comparison between PHP and ASP	14
2.2	Software requirement for sever side	22
2.3	Hardware requirement	23
2.4	Network requirement	24
2.5	Project Schedule and Milestones	25
3.1	Data Requirement for E-Rumahku Sales System	34
3.2	Software Requirement for server side	49
3.3	Software Requirement for client side	51
3.4	Hardware requirement for client and server side	52
3.5	Network Requirement	53
4.1	Input Design for User Authentication Page	61
4.2	Input Designs for Member Registration Page	63
4.3	Input Designs for House Booking	64
4.4	Input Designs for Status Checking Interface	67
4.5	Input Designs for Add House type interface	69
4.6	Input Designs for Update client status	71
4.7	Input Designs for Manage news	73
4.8	Input Designs for generate report	74
5.1	Environment Setup	104
5.2	MySQL Configuration for E-RSS	104
5.3	The datasets and path working of E-RSS	112

5.4	Version Control Procedure	114
6.1	Test Organization	117
6.2	Test Environment	118
6.3	Test Schedule	119
6.4	Black box testing and white box testing test classes	121
6.5	Test cases, description and expected result for login module	123
6.6	Test cases, description and expected result for registration module	124
6.7	Test cases, description and expected result for house information module	124
6.8	Test cases, description and expected result for House booking module	125
6.9	Test cases, description and expected result for Check status module	125
6.10	Test cases, description and expected result for update status module	125
6.11	Test cases, description and expected result for manage news module	126
6.12	Test cases, description and expected result for payment information module	126
6.13	Test Data of admin and staff login	128
6.14	Test Data of insert client data	128
6.15	Test Data of House booking	129
6.16	Test Data of House Information	129
6.17	Test Data of Manage news	130

LIST OF FIGURES

DIAGRAM	TITLE	PAGE
2.1	Flowchart for the existing System	10
2.2	Leong Housing Website	11
2.3	Waterfall Model	16
2.4	Database Life Cycle (DBLC)	21
3.1	Context Diagram for METACORP System (current System)	29
3.2	DFD Level 0 for METACORP System	30
3.3	DFD Level 1 for House Booking	31
3.4	DFD Level 1 for Payment	32
3.5	Context Diagram for E-Rumahku Sales System (New System)	36
3.6	DFD Level 0 for E-Rumahku Sales System (New System)	37
3.7	DFD Level 1 for Registration	39
3.8	DFD Level 1 for House Booking	40
3.9	DFD Level 1 for Staff Login	41
3.10	DFD Level 1 for Update Status	42
3.11	DFD Level 1 for Check Status	43
3.12	DFD Level 1 for Inventory Management	44
3.13	DFD Level 1 Generate Report	45
3.14	DFD Level 1 for Backup	46
3.15	DFD Level 1 for Manage News	47
4.1	Three-tier architecture – hardware view	56
4.2	Three-tier architecture – software view	56
4.3	Overview of Navigation Design of the System	60
4.4	Login menu interface	61

4.5	Register menu interface	62
4.6	House Booking interface	64
4.7	Status Checking interface	66
4.8	Add House type interface	68
4.9	Update Client Status	70
4.10	Manage News	72
4.11	Generate Report	74
4.12	Output Design for Login Success	75
4.13	Report	75
4.14	Entity Relationship Diagram (ERD	78
4.15	User View for E-RSS application	96
4.16	My SQL & XAMPP directory protection	97
4.17	Connect to localhost page	98
4.18	Welcome pages for PHPMyAdmin	98
5.1	Three Tier Application	103
5.2	Start the Database Service Setup	106
5.3	Query Form Login	107
5.4	Xampp Welcome Screen	110
5.5	Choose Install location screen	110
5.6	Installing Xampp	111
5.7	Complete installation	111
5.8	Setup the Xampp Control Panel	112
5.9	Setup Xampp Control Panel	78

LIST OF ABBREVIATIONS

ASP	-	Active Server Page
DFD	-	Data Flow Diagram
DBLC	-	Database Life Cycle
DBMS	-	Database Management System
ERD	-	Entity Relationship Diagram
FTMK	-	Fakulti Teknologi Maklumat dan Komunikasi
PHP	-	Hypertext Pre Processor
UTeM	-	Universiti Teknikal Malaysia Melaka
E-RSS	-	E-Rumahku Sales System

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Gantt Chart	133
B	Data Dictionary	139
C	Implementation Status	144
D	Test Results and Analysis	150
E	Input Design	157
F	User Manual for Administrator	161
G	User Manual for Staff	170
H	User Manual for Customer	177
I	Log Book	181
J	Proposal Form	192

CHAPTER I

INTRODUCTION

1.1 Project Background

Information and Communication Technology (ICT) brings a new technology to change and ease the management for get the information that will more systematic and efficient. For Project Sarjana Muda I (PSM I), a web based project called E-Rumahku Sales System (E-RSS) will be develop. This project is done for METACORP. This system will propose the easy, effective and fast handling of user information. The new system also will be responsible to assist administrator to update all the data about the entire customer.

This project meant to ease the user who are interested in buying houses but not have time or inconvenient to go to the developer to get more information about the houses. So, to solve this problem, E-RSS will be developing to handle booking and research that user want. They have to log on the internet and do the booking for the house that they want to buy. It also will offer environment to perform transaction with no geographical and time boundaries. There will have two level user, administrator and user.

For the time being, the system propose features as follows, administrator will be able to view customer data, to allow staff to get and manage information related to all the customer, the cost more effective, provide secure and reliable access for staff

information, provide method for tracking customer information at a specific time and date, easy management of customer information.

Through this system, the database will be more efficient and the data will keep safely for used. It is also can reduces the data loss and damage through the backup process. Besides, it can make the entire daily job easier than before.

1.2 Problem Statement

In the current system, there are some of problem that have been identified in the management of this company daily operation. On of the problem is time constraint. For example, client can only make house buying during business hours. Sometime, they have to make appointment with METACORP to deal and make a enquiries about the houses. So, it can waste time to go there and find out information for the houses.

Another problem is lacks of medium to promote houses. The company still promote through pamphlet and agent. So, some of the client did not know the promotion of the new houses. So, this will make time to sell the house will longer than expected time.

The house buying process also generates a problem in managing the selling process. Currently, clients have to come to show houses or METACORP office to show the vacancy of the houses that they interested to buy. So, administrator must know the report of the house balance. Sometimes the data about the house is not accurate to the references.

Other problems are data redundant, data losing and inconsistency. It can effect the data integrity. The data must be maintained and multiple users can access it and change the data. There is another problem where there is no backup and recovery. This problem occurred because data is not computerized and difficult to backup and recovers the data

This project will be one of their solutions in upgrading the company services in daily job especially for administrator to know the report of the house balance automatically.

1.3 Objective

This project is carried out with the following objectives.

- To arrange houses data in the database effectively
- To provide a web-based house buying application
- To provide secure system by implementing different level of authentication
- To ease the management to produce report
- To aid in automating the booking activities for buying application process.

1.4 Scope

The scope for this project is to manage the client in term of house buying. They are two level user, administrator and user. Administrator will have the privileges to access user information. Administrator can view the monthly report, update status for user to know their application success or not, can cancel application that is not required and check forum for giving feedback for user comment. For user they must log on to access and register in applying to book the houses. They also can view the status for their application, cancel their application and they can state their comment in forum. There are some modules for the project will be developed:

- Buying application

Customer can do the house booking after doing registration. After registered, they can choose which housing lot, phase and type of house to do the

booking. If confirmed to buy the house, they have to fill in their application form provided. Then, the administrator will examine the qualification of the customer who has booked the house.

- House Selection

To help user choose the suitable house based on their qualification.

- Login for different level user

Only authorized user can access specific page. For example register user cannot access the administrator pages. For administrator, they will be given a new account and will not share with other administrator.

- Monthly sales report

Monthly sales report will be generated and shown to the administrator such as total of the house sold according to the housing lots, phase and type of houses.

- Search-and-list

Functionality will let the administrator search for information that satisfies the criteria given for the related data fields and list that information. Example, the administrator will be able to view the detailed info about the information selects over this search-and-list interface.

- House data management

For this module, administrator will update the information that related to the house such as add new type of house, phase, and house balance, approve or rejected application, and house information.

1.5 Project Significance

Each system that is build is based on their functionality that the user need. In this context, the system that is build will be fulfilling certain functions that will help administrator and user in many ways. This system will bring a new concept in order to enhance their services.

For this project, it will make the buying house process easier through online. This will save time to go to show houses or developer office. It also saves time for METACORP staff to get information for house available in order to inform to their customer.

For user, they can get information about the house that they are interested to buy. User also can view the show houses through online and get the price to make a research which houses that suitable for them. The also can view the location and if they are interested, they can book the house through online. The system can suggest the type of house.

For the administrator, this system will makes their job easier than before because time management more systematic.

This significant project also is important for administrator and user. This is because the system will solve the entire problem that arise a system more efficient and systematic web-based system.

1.6 Expected Output

For this project, the resulted for the expected output is able to store a lot of application data and data can be influenced based on the certain function. It also able to allow user make house booking online before buying the house.

For administrator, they can get monthly report according houses sold. They can know which house fully sold out or not. So, they can do a planning to promote in order to sell their house. Other than that, their job will be more systematic and effective because of management better than before where the promotion not only in manual side but in effective way. They will also have the effective database which have data integrity and can ease data redundancy.

1.7 Conclusion

As a conclusion, when the new system is fully implemented it will definitely help the METACORP staff in their daily job. This system will make the booking process easier to user that can save their time by accessing internet.

Other than that, METACORP will have more efficient and systematic system. It will make METACORP staff task more easier where from manual task will be done in automatically. So, there is an enhancement in their services to make sure users are comfortable and easy timing access.

After this, the next chapter that will be provided is Literature Review and Project Methodology. This part will review the previous project and make a comparison with project that has been proposed. Besides that, this chapter also explains about the methodology that will be used in this project.