UTEM E-MARKET PLACE

BADRUN BIN BANDI

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

C Universiti Teknikal Malaysia Melaka

BORANG PENGESAHAN STATUS TESIS

JUDUL: <u>UTEM E-MARKETPLACE</u>	
SESI PENGAJIAN: 2009/2010	the delication of the delicati
Saya BADRUN SIN BANDI	
	ct Sarjana Muda ini disimpan di Perpustakaan dengan syarat-syarat kegunaan seperti berikut:
1. Tesis dan projek adalah hakmilik Un	iversiti Teknikal Malaysia Melaka.
 Perpustakaan Fakulti Teknologi Mak tujuan pengajian sahaja. 	klumat dibenarkan Membuat salinan untuk
	tlumat adalah dibenarkan membuat salinan tara 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	
BackBat	Hashing
(TANDATANGAN PENULIS)	(TANDATANGAN PENYILIA)
Alamat tetap: 102A Kg Pt Marjunid, 82200 Benut Pontian, Johor	Pn Nor Haslinda Bte Ismail
Tarikh: 29 TUN 2010	Tarikh: 29 Jun 2010

UTEM E-MARKET PLACE

BADRUN BIN BANDI

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA 2010



UTEM E-MARKET PLACE

BADRUN BIN BANDI

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA 2010



DECLARATION

I hereby declare that this project report entitled UTEM E-MARKETPLACE

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

STUDENT :	BADRUN BIN BANDI	Date:	. OI OG MUTPE
	(BADRUN BIN BANDI)		
SUPERVISOR:	Hosling	_ Date: _	29/6/2011
	(PN NOR HASLINDA BTT ISMAIL)		

DEDICATION

I'd like to give thanks to my parents and my siblings for their encouragement and also a special thanks to Pn Nor Haslinda Bte Ismail for her consistent support and encouragement.

ACKNOWLEDGEMENT

Alhamdulillah, very thankful to the Allah S.W.T for give me a good health and spirit throughout this project. I am grateful to my supervisor Pn Nor Haslinda Bte Ismail for her guidance in carrying out the project and his valuable comments on the drafts of the thesis. For my friends that always give full support for me to finish my project. My friends who I ask for help from them a lot. A special word of gratitude should be given to my family for the unfailing support and encouragement to enable me to complete my degree project.

ABSTRACT

This UTeM E-MarketPlace System is developed for UTeM to allow student and staff to sell their product to others. This system will allow user to advertise their goods at the system and allow other user to search what the need base on category of the advertisement. This system will guide user access and control in this system with easy. In addition, user may also choose category of the product that they wanted to advertise. In order to help buyer find what he or she wanted, seller could set the location of the advertised product they sell to a certain location they wanted to minimize the scope area of the item could be sell. Methodology that has been applied during the development process is Object-Oriented approach and Rational Rose is use as development tool. The website is developed by implementing web technologies such as ASP Server, ASP, CSS, JavaScript, Ajax and HTML. Web data is maintained in Microsoft Database Server.

ABSTRAK

Sistem UTeM E-MarketPlace ini dibangunkan untuk UTeM sebagai satu medium yang membolehkan pelajar dan staf menjual produk-produl mereka kepada orang lain. Sistem ini akan membenarkan pengguna untuk mengiklankan produk mereka dan membenarkan pengguna lain untuk mencari produk yang dikehendaki berdasarkan kategori produk yang di sertakan. Untuk memudahkan pembeli, penjual boleh menyatakan jenis dan lokasi produk yang dijual. Methodologi yang telah digunakan semasa proses pembangunan aplikasi ini ialah OOP iaitu melalui kaedah berorientasikan objek. Aplikasi web ini dihasilkan dengan mengimplimentasikan teknologi web seperti ASP, CSS, JavaScript, Ajax and HTML. Data disokong oleh Microsoft ISS Server.

TABLE OF CONTENTS

CHAPTER		SUBJECT	PAGE
	DEC	CLARATION	ii
	DED	DICATION	iii
	ACK	KNOWLEDGMENTS	iv
	ABS	TRACT	\mathbf{v}
	ABS	TRAK	vi
	TAB	LE OF CONTENT	vii
	LIST	T OF TABLES	viii
	LIST	T OF FIGURES	xii
			xiii
CHAPTER I	INT	RODUCTION	
	1.1	Project Background	1
	1.2	Problem Statements	2
	1.3	Objective	2
	1.4	Scope	3
	1.5	Project Significance	3
	1.6	Expected Output	4
	1.7	Conclusion	5

CHAPTER II	LIT	ERATURE REVIEW AND PROJECT	
	ME'	THODOLOGY	
	2.1	Introduction	6
	2.2	Facts and findings	7
		2.2.1 Domain	7
		2.2.2 Existing Systems	8
		2.2.3 Technique	11
	2.3	Project Methodology	11
	2.4	Project requirements	14
		2.4.1 Software Specifications	14
		2.4.2 Hardware Specifications	15
	2.5	Project Schedule and Milestones	15
	2.6	Conclusion	17
CHAPTER III	ANA	ALYSIS	
	3.1	Introduction	18
	3.2	Problem analysis	19
	3.3	Requirement analysis	20
		3.3.1 Data Requirement	20
		3.3.2 Functional Requirements	27
		3.3.3 Non-Functional Requirement	28
		3.3.4 Other Requirement	30
	3.4	Conclusion	32
CHAPTER IV	DES	IGN	
	4.1	Introduction	34
	4.2	High-Level Design	35
		4.2.1 System Architecture	35
		4.2.2 Conceptual and Logical	37
		4.2.3 User Interface Design	39
		4.2.3.1 Navigation Design	43
		4.2.3.2 Input Design	45
		4.2.3.3 Output Design	47
		4.2.4 Database Design	49
	4.3	Detail Design	50

		4.3.1 Physical Database Design	51
	4.4	Conclusion	55
CHAPTER V	IMP	LEMENTATION	
	5.1	Introduction	56
	5.2	Software Development Environment	57
		Setup	
	5.3	Software Configuration Management	59
		5.3.1 Configuration Environment	59
		Setup	
		5.3.2 Version Control Procedure	61
	5.4	Implementation Status	62
	5.5	Conclusion	63
CHAPTER VI	TES'	TING	
	6.1	Introduction	64
	6.2	Test Plan	65
		6.2.1 Test Organization	66
		6.2.2 Test Environment	67
		6.2.3 Test Schedule	67
	6.3	Test Strategy	68
	6.4	Black-Box Test Design	69
		6.4.1 Test Description and Test Data	69
		6.4.2 Test Result and analysis	75
	6.5	Web Usability Testing	77
	6.6	Conclusion	80
CHAPTER VII	CON	ICLUSION	81
	BIBI	LIOGRAPHY	84
	REF	ERENCES	85
	APP	ENDICES	87

LIST OF TABLES

TABLE	TITLE	PAGE
Table 2.1	Comparison of features in Existing C2C E-Commerce Systems	10
Table 2.2	Hardware Requirements	15
Table 2.3	Duration taken and the milestone produced at each phase	16
Table 3.1	Non-functional Requirement	29
Table 4.1	Input Design Table	45
Table 4.2	Output Design Table	47
Table 4.3	Physical Advertisement Table	52
Table 4.4	Physical Category Table	53
Table 4.5	Physical Comment Table	53
Table 5.1	E-MarketPlace Version Control Protocol	61
Table 5.2	Implementation Status	62
Table 6.1	System testing of E-MarketPlace	63
Table 6.2	Test Description and Test data of Admin Module	69
Table 6.3	Test Description and Test data of Student Module	73
Table 6.5	Test Description and Test data of Admin Module	75
Table 6.6	Test Description and Test data of Student Module	76

LIST OF FIGURES

FIGURE	TITLE	PAGE
Figure 2.1	V-Shape Model	14
Figure 3.1	Use Case of Manual System	20
Figure 3.2	Use Case of Proposed System	21
Figure 3.3	Activity Diagram for Search Engine	22
Figure 3.4	Sequence Diagram for Searching function	23
Figure 3.5	Sequence Diagram for Requester (Buyer) Operation	25
Figure 3.6	Sequence Diagram for Seller Operation	24
Figure 4.1	Client Server architecture	36
Figure 4.2	Entity Relationship Diagram for E-MarketPlace	38
Figure 4.3	E-MarketPlace Main Page	40
Figure 4.4	Login Page	41
Figure 4.5	Advertising Page	42
Figure 4.6	Upload Image Page	43
Figure 4.7	Navigation Design for E-MarketPlace	44
Figure 4.8	Database diagram	50
Figure 4.9	Advertisement context diagram	51
Figure 5.1	Software Development Environment for E-MarketPlace	58
Figure 6.1	Rating for E-MarketPlace interface Design	79
Figure 6.2	Rating for E-MarketPlace advertisement Content	80

CHAPTER I

INTRODUCTION

1.1 Introduction

The definition C2C e-commerce or formally known as consumer to consumer electronic commerce is a process involving simple business transaction between users using an application as a medium to advertise the products to be sell and response from users that demanding the product. In C2C networks, seller can sell goods and services to buyer. There are thousands of sellers with different items to sell and an equally large number of buyers. Finding each other can incur quite a high cost to both buyer and seller, and thus this is why intermediaries like C2C electronic commerce are so important. They simply mediate between users who want to buy and sell product in one market place.

C2C concepts are becoming more popular amongst students in universities nowadays because these are large communities in the same geographical region that are low on money. So they are looking for deals very often and these kinds of websites offer this. Universities themselves should set up places for students to sell textbooks and other stuff to other students. Students can even advertise that they subletting their apartment.

UTeM E-MarketPlace is mainly developed to exchanges involve all business transactions between and among students and staff in Universiti Teknikal Malaysia Melaka. There are different products categories that can be sold including new and used books, vehicles, pets, phones and lot more. In this application, students can be a

seller of a product to staff and staff also can be as a buyer from a student depending on what the buyer want and what the seller had to offer.

1.2 Problem statement

- 1. Currently, UTeM not yet have an official C2C electronic commerce website.
- 2. Student's difficulty of obtaining reference material to study.
- 3. Difficulties in selling and buying goods among students and lecture.
- 4. Difficulties in advertise student product, old text books, computer staff, house for rent, roommate wanted and others.
- 5. Students do not know how to promote their sale and do not know how to sell their goods.
- 6. Lecture have to sell text books by announce sale from class to class.
- 7. Less connectivity between departments and faculties.
- 8. Student does not know which lecturer offering text books for current subject.

1.3 Objective

Every project that wants to be developed must have objectives and targets to achieve. There are several objectives to be archive as a target and purpose of UTeM E-MarketPlace development. The objectives are:

- 1. Create UTeM first C2C electronic commerce website.
- 2. Create an opportunities for students and lecturer to exchanges involve all transactions between and among students and lecturer.
- 3. Students and lecturer market place to get learning material, sell and buy goods.
- 4. Help students and lecturer to promote their product.

- As a new platform to give new information and it follow state-of-the-art technology.
- 6. Students and lecturer should be able to save cost and time to deliver information.

1.4 Scope

- 1. Online advertisement media for several categories of items like books, computer general merchandise, house to rent and others.
- 2. Only administrator can create, update and delete crucial information in this website. The administrator must login to the system before do this.
- 3. Student will be allowed to advertize their goods for free.
- 4. Student is allowed to manage their own advertised goods.
- 5. Student must register to the system to start advertize using the system.

1.5 Project Significance

As the project objective is to enable businesses transaction between users, there were several project significance to be as a result and purposes from developing the application:

Online business facilities

As the system implementation will be use by university student and staff. It open business environment to the student and staff and provide student with opportunities to advertise their advertisement and use the system as a medium to search for any related product of their needs.

• C'entral marketing and advertising medium

UTeM E-MarketPlace will provide central environment as marketing and advertising medium for student and lecturer, it provide a base for student and lecture to advertise and sell their product to others. Its allow student be familiar with business environment and logically educated to be familiar with business environment.

Place to share and care

UTeM E-MarketPlace will provide student a place to share and a community to care. The places where student and lecturer know each other have and meet as a group of community. It is a place where all of the university students get to be social and know to each other even different course and faculties.

Source of information and learning material.

UTeM E-MarketPlace will be a place where student and staff share their information and get learn material between them. Student from engineering course will also be able to share and get books and any source of information from IT department student.

1.6 Expected Output

Final working UTeM E-MarketPlace ecommerce application that provide user with several functionalities including advertising, user profile, newsletter, product searching capabilities and majorly will provide business opertunity to UTeM student and staff.

1.7 Conclusion

C2C electronic commerce has given online shopping and trading a new dimension. While this sort of trading is prevalent in the offline world, it was not expected to take off so well online, due to the anonymity of users. In university situation, this business concept gives user flexibility in finding what they needs and opportunity to sell and buy a product to others without worry about the security of the system and they does not have to go beyond their own comfort zone to buy and sell goods.

The advantage of consumer to consumer e-commerce is most often the reduced costs and smaller but profitable user. It also gives many students and staff a way to sell their goods without running a store. The most effective consumer to consumer businesses involve items such as handmade gifts, personal artwork, clothing design, and collectables. It is also acceptable for student to sell chocolate for friendship day by using the system online.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter will discuss the analysis and existing or similar application that is related to the project. Literature review will focus on the research of the existing and future application. Literature review is a process of searching, collecting, and drawing conclusion from all issue rose in relevant body of literature. It describes all the analysis and findings which are related research, case study and other findings that are related to this project. In addition, it also consist the knowledge of the project elements such as domain specification, techniques and how these elements related and combined to each other.

Methodology is the key of succeeding in finishing a project within time and being able to satisfy user's requirements. It is also a description of the selected approach that will be used when developing the project. Every step in the selected methodology will be justified to suit every task. Since there are many kind of methodology, it is vital to select appropriate methodology that will be used.

In developing web application, literature study is an important part to make sure that the web application that develop will achieve the target and objectives. There are commercial and university e-commerce application that we use as a reference when we are start develops this application. The web does not have significant difference between each other. Also refer their information and the process.

The type of software is also important before developing the E-MarketPlace. It is because can be a guide to us and will be a comparison between the other to make sure that the website is better and the web will be quality and efficient.

2.2 Facts and findings

Fact and Finding is a discovery or determination of fact or accurate information. This section conveys about the online booking system, analysis the existing system, to find out the strength and weaknesses of the system. After all the strength and weaknesses has been analysis, it will then been applied to the system and the failure and weaknesses will then been improved.

For UTeM E-MarketPlace application, fact and findings is an important component of the literature review. It contain domain of the project, the existing system and the technique that used in the proposed system. The facts finding is based on topic which is UTeM E-MarketPlace e-commerce application.

2.2.1 Domain

Introducing e-commerce system to university students requires attention from all of the University staff and students. It requires full understanding on safety precaution to handle online business transaction, to gain trust between user and gain website popularity between existing and new user.

Reality, in normal business transaction, user is not easy to get satisfaction on the product even the product price is cheap. By implementing the system, both seller and buyer will easily satisfy with the transaction because it is easier to match the desired transaction between the seller and buyer.

Online business transaction is not popular in Malaysia. To implement this approach successfully, all University members should takes opportunity on the services offered from the system and takes opportunity to use the system to do business. It will provide good starting point on Malaysia citizen to implement online business transaction as a primary source of business transaction media.

As a result, it is a good idea when Universities have their own community that runs business intensely. Adaptation will require times to be success but will change the way we do business every day.

2.2.2 Existing System

For this part, the research before develop this project are very important. In this project, the case study is the main of method of research that related with this project. Investigation and analysis for present system is necessary to identify problem and constraint will exist in stated system. It aim to investigate functions used to be given by developer system. This web system development is based on the study of the interface, security, equipment, information and the other part.

Example of the system:



Welcome to The Dalhousie Student Union Online Book Exchange

Books for sale: 23841 Books sold: 19406 If you wish to post books for sale or if you want to see what books you are currently selling you need to log in first. Email Address: Password: Submit

TigerBooks is a person-to-person online book exchange that allows students to buy and sell used books. Anyone with a Dalhousie NetID can post books they would like to sell or browse the listings for books they would like to buy.

TigerBooks is one of the many ways the DSU is working to decrease the financial burden of high textbook prices on students.



Mudah.my is c2c online company that mainly the most successful c2c business provider and provides many category of item that was sold. It is used by a seller that wants to sell its product directly to its customer with minimum of advertising expanses.

Related System Features	Mudah.my	TigerBooks	
Easy-to-use interface	1	X	
Mobile Notification Enabled	X	X	
Real Time Notification Progress	1	1	
User Profile	X	√	
Image Upload Support	1	X	
Map location	X	X	
Advertisement Expiry	X	X	
Legend: √- Feature provided X - Feature not provided			

Table 2.1: Comparison of features in Existing C2C E-Commerce Systems