

ONLINE CATERING COLLABORATION SYSTEM

NUR HAFIZAH BT GHAZALI

UNIVERSITI UTARA MALAYSIA 2010

ONLINE CATERING COLLABORATION SYSTEM

A project submitted to Dean of Postgraduate Studies and Research in partial
Fulfillment of the requirement for the degree
Master of Science of Information Technology
Universiti Utara Malaysia

By

Nur Hafizah binti Ghazali



**KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia**

**PERAKUAN KERJA KERTAS PROJEK
(Certificate of Project Paper)**

Saya, yang bertandatangan, memperakukan bahawa
(I, the undersigned, certifies that)

NUR HAFIZAH BT GHAZALI
(804825)

calon untuk Ijazah
(candidate for the degree of) **MSc. (Information Technology)**

telah mengemukakan kertas projek yang bertajuk
(has presented his/her project of the following title)

ONLINE CATERING COLLABORATION SYSTEM

seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of project)

bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that this project is in acceptable form and content, and that a satisfactory knowledge of the field is covered by the project).

Nama Penyelia
(Name of Supervisor) : **MISS SYAHIDA HASSAN**

Tandatangan
(Signature) :  Tarikh (Date) : 27 Oct 2010

Nama Penilai
(Name of Evaluator) : **ASSOC. PROF. AZIZ ROMLI**

Tandatangan
(Signature) :  Tarikh (Date) : 27/10/10

PERMISSION TO USE

In presenting this project in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this project in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor(s) or, in their absence by the Dean of Postgraduate Studies and Research. It is understood that any copying or publication or use of this project or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my project.

Requests for permission to copy or to make other use of materials in this project, in whole or in part, should be addressed to:

Dean of Postgraduate Studies and Research

College of Arts and Sciences

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman, Malaysia

ABSTRACT

Nowadays, internet has become a medium that has a superb marketing solution. With it fast, easy to use and cheap in term of operational cost a marketing process can be done with just a click. E-commerce has significantly affected the business world and will continue to be important. Catering services is one of the industries that have been affected by the rapid growth of e-commerce. From literatures, it is observed that there are still many challenges to be tackled in e-commerce applications. One of the challenges in e-commerce especially in online catering services is lack of integration, flexibility and information sharing between three major entities involved which are customer, caterer and supplier. Hence, this study intends to close the gaps that exist between these three entities which prevent them to move forward.

ACKNOWLEDGEMENT

In the name of Allah, Most Gracious, Most Merciful.

All praise and thanks be to Allah for His guidance that had lead me in completing this research. His blessings had given me strength and courage throughout this past year and had helped me overcome difficulties during this research period. First and foremost, I would like to take this opportunity to express my sincere gratitude to those who had assisted me in finishing this research. To my dear supervisor, Miss Syahida Hassan, thank you for all your supports and guidance in showing me the right path towards completing this research. I really appreciated your advices and motivations that you had given me within the period of this research. My infinite thank you are dedicated to my loving and caring family, who had cherish me and give me full support in any kind. I am deeply appreciated for all the motivations and inspirations. Without them, it is impossible for me to finish my research. And last but not least, an endless appreciation to all my fellow friends and classmates for all the supports and encouragements. Their friendships never fail to amaze me.

May Allah S.W.T bless them all and repay all of their kindness and sacrifices.

TABLE OF CONTENT

Permission to Use	i
Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	vii
List of Figures	viii
1 Introduction	1
1.1 Introduction	1
1.2 Background Study	1
1.3 Problem Statement	3
1.4 Project's Objective	4
1.5 Scope	4
1.6 Significance	5
1.7 Summary	5
2 Literature Reviews	6
2.1 Introduction	6
2.2 Catering Services	6
2.3 E-commerce	9
2.3.1 E-commerce Business Model	10
2.3.2 Overview of Research on E-Commerce Web Sites	13
2.4 Web-based Catering Services	15
2.4.1 Review on Web-Based Catering Services in Malaysia	16
2.4.1.1 Tok Li Nasi Padang	16
2.4.1.2 Sofi Catering	17

2.4.1.3	Caterer.com.my	18
2.5	Summary	19
3	Methodology	20
3.1	Introduction	20
3.2	Phase I: Define Requirement	21
3.2.1	Literature Review	22
3.2.2	Observation	22
3.2.3	Interviewing	23
3.3	Phase II: Analyze Requirement	23
3.3.1	System Modeling	23
3.3.2	Unified Modeling Language	24
3.4	Phase III: Requirement Model Validation	24
3.4.1	Prototype Development	25
3.5	Summary	25
4	System Analysis and Design	26
4.1	Introduction	26
4.2	List of Requirements	26
4.3	Use Case Diagram	29
4.3.1	Use Case Specification	30
4.4	Sequence Diagram	44
4.5	Summary	50

5 Finding	51
5.1 Introduction	51
5.2 Finding	51
5.3 Summary	60
6 Conclusion and Recommendation	61
6.1 Introduction	61
6.2 Limitation	61
6.3 Recommendation	62
6.4 Conclusion of the Study	63
6.5 Summary	63
References	65
Appendixes	
Appendix A	71
Appendix B	73

LIST OF TABLES

Table No.	Title	Page
2.1	Internet business models (Loudon & Loudon, 2000).	12
4.1	Functional requirements.	27
4.2	Non-functional requirements.	28

LIST OF FIGURES

Figure No.	Title	Page
2.1	Homepage for Tok Li Nasi Padang Catering.	17
2.2	Homepage for Sofi Catering.	18
2.3	Homepage for Caterer.com.my.	19
3.1	The system analysis phases of a project.	21
4.1	Use case diagram for Online Catering Collaboration System.	28
4.2	Sequence diagram for Login.	44
4.3	Sequence diagram for Edit Profile.	44
4.4	Sequence diagram for Search Caterer.	45
4.5	Sequence diagram for View Booking List by customer.	45
4.6	Sequence diagram for View Message by customer.	46
4.7	Sequence diagram for View Favorite List by customer.	46
4.8	Sequence diagram for View Booking List by caterer/ supplier.	47
4.9	Sequence diagram for View Message by caterer/ supplier.	47
4.10	Sequence diagram for Manage Item by caterer.	48
4.11	Class diagram for Online Catering Collaboration System.	49

5.1	Home page of Online Catering Collaboration System.	52
5.2	Main page for customer.	53
5.3	My Booking module for customer.	54
5.4	Booking Details page for customer.	55
5.5	Main page for caterer.	56
5.6	Booking Lists module for caterer.	57
5.7	Booking Details page for caterer.	58
5.8	Item Manager module for caterer.	59
5.9	Register New Item page for caterer.	59

CHAPTER I

INTRODUCTION

1.1 Introduction

This chapter described about the background study of catering and e-commerce. This chapter continues to discuss the problem statement regarding the catering and e-commerce application nowadays. The objective, scope and significance of the project are also discussed.

1.2 Background Study

With the evolving of communication technology nowadays, the Internet technology had give lots of contribution towards Malaysia's income. The topic is related to catering industry in Malaysia, which has potential to expand with the aid of internet based information technology that exists nowadays. Generally, catering industry is closely related to food and drinks enterprise as one of the services to customer. Nevertheless,

The contents of
the thesis is for
internal user
only

REFERENCES

- Amani, A.M., Zaharin, & M., Norshuhada, S. (2006). *Requirement Model for PEKA Management System: A Case Study in Kubang Pasu Secondary Schools*. Unpublished MSc Thesis. Universiti Utara Malaysia.
- Anumba, C. J., & Ruikar, K. (2002). Electronic commerce in construction—trends and prospects. *Automation in Construction*, *11*, 265– 275.
- Constantine, L L., & Lockwood L. A. D. (2000). *Inventing Interfaces: Tactics, Tricks, and Techniques for Breakthrough Innovations*. North Andover, MA: User Interface Engineering.
- Cooper, H. M. (1988). The structure of knowledge synthesis. *Knowledge in Society*, *1*, 104-126.
- Eastin, M. (2002). Diffusion of e-commerce: an analysis of the adoption of four e-commerce activities. *Telematics and Informatics*, *19*(3), 251–267.
- Elofson, G., Robinson, & W. N. (1998). Creating a custom mass-production channel on the Internet. *Communication of the ACM*, *41*(3), 56–62.
- Galitz, W. O. (1996). *The Essential Guide to User Interface Design*. New York: John Wiley & Sons.

- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, 27(1), 51–90.
- Glushko, R. J., Tenenbaum, & J. M., Meltzer, B. (1999). An XML framework for agent-based e-commerce. *Communication of the ACM*, 42(3), 106–114.
- Ho, S. C., Kauffman, R. J., & Liang, T. P. (2007). A growth theory perspective on B2C e-commerce growth in Europe: An exploratory study. *Electronic Commerce Research and Applications*, 6, 237–259.
- Heijden, H. V. D. (2003). Factors influencing the using of Web sites: the case of a generic portal in The Netherlands. *Information & Management*, 40(6), 541–549.
- Hoffman, D., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communication of the ACM*, 42(4), 80–85.
- Jutla, D., Bodorik, P., Hajnal, C., & Davis, C. (1999). Making business sense of electronic commerce. *IEEE Computer*, 32(3), 67–75.
- Kahramana, C., Cebecia, U., & Ruan, D. (2004). Multi-attribute comparison of catering service companies using fuzzy AHP: The case of Turkey. *International Journal Production Economics*, 87, 171–184.
- Kalakota, R., & Whinston, A. B. (1997). *Electronic Commerce: A Manager's Guide*. Austin: Addison-Wesley.
- Kelly, P. W. (1995). The catering industry in the Republic of Ireland. *International Journal Hospitality Management*, 14(1), 25–37.
- Kettinger, M. (1991). *How to Manage a Successful Catering Business (2nd ed.)*. New York: John Wiley & Sons.

- Kosiur, D. (2004). *Understanding Electronic Commerce (1st ed.)*. India: Prentice Hall.
- Koufaris, M., & Hampton-Sosa, W. (2004). The development of initial trust in an online company by new customers. *Information & Management*, 41(3), 377–397.
- Laudon, K. C., & Laudon, J. P. (2000). *Management Information System: Organization and Technology in the Network Enterprise (6th ed.)*. New Jersey: Prentice Hall.
- Leung, L. C., Cheung, W., & Hui, Y. V. (2000). A framework for a logistics ecommerce community network: the Hong Kong air cargo industry. *IEEE Transactions on System, Man, and Cybernetics*, 30(4), 446–455.
- Liu, C., & Arnett, K. P. (2000). Exploring the factors associated with Web site success in the context of electronic commerce. *Information & Management*, 38(1), 23–33.
- Lutz, R. R., & Woodhouse, R. M. (1997). Requirements analysis using forward and backward search. *Annals of Software Engineering*, 3, 459-475.
- Lynch, P. J., & Horton, S. (1999). *Web Style Guide: Basic Design Principles for Creating Web Sites*. New Haven: Yale University Press.
- Malaga, R. A. (2001). Web-based reputation management systems: problems and suggested solutions. *Electronic Commerce Research*, 1(4), 403–417.
- Mandel, T. (1997). *The Elements of User Interface Design*. New York: John Wiley & Sons.
- Naedele, M. (2003). Standards for XML and Web services security. *IEEE Computer*, 36(4), 96–98.

- Negash, S., Ryan, T., & Igbaria, M. (2003). Quality and effectiveness in Web-based customer support systems. *Information & Management*, 40(8), 757–768.
- Ngai, E. W. T., & Wat, F. K. T. (2002). A literature review and classification of electronic commerce research. *Information & Management*, 39(5), 415–429.
- Nielsen, J. (2000). *Designing Web Usability: The Practice of Simplicity*. Indianapolis: New Riders Publishing.
- O’Keefe, R. M., & McEachern, T. (1998). Web-based customer decision support systems. *Communication of the ACM*, 41(3), 71–78.
- Pressman, R. (2005). *Software Engineering: A Practitioner’s Approach (6th ed.)*. New York: Mc-Graw-Hill Higher Education.
- Raskin, J. (2000). *The Humane Interface: New Directions for Designing Interactive Systems*. Reading, MA: Addison-Wesley Publishing Co.
- Riggins, F. J., & Rhee, H. (1998). Toward a unified view of electronic commerce. *Communication of the ACM*, 41(10), 88–95.
- Ruparelia, N. B. (2010). Software development lifecycle models. *ACM SIGSOFT Software Engineering Notes*, 35(3), 8-13. doi: 10.1145/1764810.1764814
- Sekaran, U. (2003). *Research Method for Business a Skill Building Approach (4th ed.)*. Singapore: John Wiley & Sons (Asia) Pte. Ltd.
- Shim, S. S. Y., Pendyala, V. S., Sundaram, M., & Gao, J. Z. (2000). Business-to-business e-commerce frameworks. *IEEE Computer*, 33(10), 40–47.

- Smith, R. A. (2001). Trends in e-business technologies. *IBM Systems Journal*, 40(1), 4–7.
- Sommerville, I. (2001). *Software Engineering (6th ed)*. Harlow, England: Addison Wesley.
- Splaver, B., Reynolds, W.N., & Roman, M. (1991). *Successful Catering, 3rd edition*. New York: John Wiley & Sons.
- Tan, E. C., Leong, P. C., & Sio, L. T. (2002). Group access control of confidential files in e-commerce management using shared-secret scheme. *Electronic Commerce Research*, 2(1–2), 151–158.
- Tan, Y. H., & Thoen, W. (2000). Toward a generic model of trust for electronic commerce. *International Journal of Electronic Commerce*, 5(2), 61–74.
- Treese, G. W., & Stewart, L. C. (1998). *Designing systems for internet commerce*. Reading, MA: Addison–Wesley.
- Trepper, C. (2004). *E-Commerce Strategies (1st ed.)*. India: Prentice Hall.
- Tognazzini, B. (1992). *Tog on Interface*. Reading, MA: Addison-Wesley Publishing Co.
- Torkzadeh, G., & Dhillon, G. (2002). Measuring factors that influence the success of Internet commerce. *Information Systems Research*, 13(2), 187–204.
- Tufte, E. (1989). *Visual Design of the User Interface*. Armonk, NY: IBM Corporation.
- Wang, H. (1997). A conceptual model for virtual markets. *Information & Management*, 32(3), 147–161.

Whitten, J. L., Betley, L. D., & Diltman, D. C. (2001). *System Analysis and Design Method (5th ed.)*. Boston: Mc-Graw-Hill Education.

Wigand, R. T. (1997). Electronic commerce: definition, theory, and context. *The Information Society*, 13(1), 1–16.

Zwass, V. (1996). Electronic commerce: structures and issues. *International Journal of Electronic Commerce*, 1(1), 3–23.