Web-Based Customer Relationship Management (CRM) For Graduate Studies Unit (GSU)

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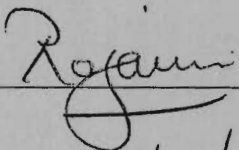*(has presented his/her project paper of the following title)*

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ABSTRACT

Web-based system has changed the way of information worldwide and considered as a common tool to share information on the Internet. With the advent of web-based system, many organizations used it as a medium to integrate inter-enterprise application across the Internet. Moreover, web-based system as information distributor not only for business, entertainments, educations purpose, but also for a major role to play in the administration of trade, security, integrity, Student Admission System, (CRM) Customer Relationship Management System. The overall progression of the project includes problem and limit encountered during the development of this project. Now University Graduate Studies Unit (GSU) working manually. It is an important, though, to have an interactive system in place to manage feedback, control quality (and online support) and decrease the number of unhappy customers. It is hard to make each customer a happy customer. An organized and well-maintained web-based customer support system is crucial to any online adventure as it can be accessed by anyone, anywhere, anytime that added values to end users.

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LIST OF ABBREVIATONS

ASP	Active Server Pages
CBA	Computer Base Assessment
CRM	Customer Relationship Management
GSU	Graduate Studies Unit
HTML	Hypertext Markup Language
HTTP	Hypertext Transport Protocol
IBM	International Business Machines Corporation
IIS	Internet Information Services
LAN	Local Area Network
SQL	Structure Query Language
SA/SD	Structured Analysis / Structured Designing
WWW	World Wide Web

CHAPTER 1

1.0 Introduction

Student Admission Department has a major role to play in the administration of University. Customer Relationship Management (CRM) manages the integrity, assessing, collecting students admissions has been the backbone of University Utara Malaysia (UUM).

Organizations could not exist without customers this leads organizations to strive for a successful relationship with customers and to dedicate a lot of effort to gain it. Customer satisfaction became one of the most important principles for any organization (Katja, 2000).

According to the University Graduate Studies Unit (GSU), formerly called Graduate Student Centre, most (PG) students are processes manual. It is easier to have an interactive system in place to manage feedback, control quality (and online support) and decrease the number of unhappy customers. It is hard to make each customer a happy customer. An organized and well-maintained web-based customer support system is crucial to any online adventure as it can be accessed by anyone, anywhere, anytime. Adopting web services technique of CRM system would be a good solution (Chris, 2000).

The contents of the thesis is for internal user only

6.0 References

Adams, and Katja, (2000), CGK Technologies Group Customer Relationship Management (CRM) and Flexible Internet Architecture (2000) Retrieved from http://www.cbdhq.com/PDFs/cbdhq_000801ca_customer_relat_man1.pdf Date: 03/02/2008

Beier, B, & Vaughan, M. W, (2003). The bull's-eye: A framework for web application user interface design guidelines. Proceedings of CHI 2003, 489-496.____Retrieved from _www.hcirn.com/ref/refb/beiev03.php Date: 05/03/2008

Bode, (2006). Sage Accpac Business Customer Relationship Management (CRM) Retrieved from   www.sageaccpac.com/products/crm/ - Date: 10/03/2008

Bode and C.P. van Dijk (1997). Operational management of results in INAA utilizing a versatile system of control charts. J. Radioanal. Nucl. Chem. 215, 87 – 94. Date: 015/03/2008

Brian.(2006) "Archaeology's Dirty Secret." In Archaeological Ethics. Karen D. Vitelli, ed. Pp. 247-252. Walnut

Creek, CA: Altamira Press, 2006. Date: 08/04/2008

Chris, Adams, and Katja, (2000), CGK Technologies Group Customer Relationship Management (CRM) and Flexible Internet Architecture (2000). Retrieved from http://www.cbdhq.com/PDFs/cbdhq_000801ca_customer_relat_man1.pdf Date: 03/02/2008

Chan, (2004) Retrieved from http://www.sap.com/solutions/business-suite/crm/customersuccess/roi.epx Date: 05/03/2008

David, J (2005) Eurotechnology-Japan Report:
"QR code and color codes for mobile phones and CRM" Retrieved from http://eurotechnology.com/store/qr-code/ Date: 04/03/2008

Dounld, C (2008). Free Open Source CRM Groupware and Intranet Software Retrieved from www.hipergate.org/ Date: 10/03/2008

Dustin, E., Rashka, J., & McDiarmid, D. (2002). Quality *Web Systems: Performance, Security, and Usability.* New York: Addison-Wesley. Date: 12/01/2008

Drescher, E., Rashka, J., & McDiarmid, D. (2003). Shaping the Consumer Goods Industry of Tomorrow. http://www.sap.com/solutions/business-suite/crm/pdf/RR_CRM_ROI_Review.pdf Date: 12/01/2008

Dijk (2000). Customer Relationship Management - Google Books Result Retrieved from books.google.com.my/books?isbn=0071379541 Date: 25/02/2008

Dung (2002). Terms and Definitions used in connection with reference materials, ISO, Geneva. Date: 015/03/2008

Elias, (2004). Customer Relationship Management, On-Demand CRM - Zoho CRM Retrieved from crm.zoho.com/ - 31k – Date: 10/03/2008

Fagan, Brian. (2006)"The Arrogant Archaeologist." In Archaeological Ethics. Karen D. Vitelli, ed. Pp. 238-243. Walnut

Creek, CA: Altamira Press, . Date: 08/04/2008

Hardesty, Donald. (2006) "Evaluating Site Significance in Historical Mining Districts". Historical Archaeology (1990)

24(2):42-51.Jan 30 Feb 6 Ethics in Archaeology Today: A Framework for CRM

Readings: Date: 08/04/2008

Jonathan D. Cryer, (2001) Department of Statistics and Actuarial Science, (Jon-Cryer@uiowa.edu) University of Iowa, Iowa City, Iowa Joint Statistical Meetings August 2001, Atlanta, GA Retrieved from http://oit.utk.edu/scc/ExcelStatProbs.pdf Date: 12/02/2208

John,(2007), American Journal of Respiratory Relationship Management (CRM) Retrievedform, http://www.destinationcrm.com/articles/default.asp?ArticleID=1746 Date 23/01/2008

Jukic N, Jukic B, Meamber and L Nezlek G(2002) Improving e-business customer relationship management systems with multilevel secure data models. *System Sciences, 2002. HICSS. Proceedings of the 35th Annual Hawaii International Conference on Volume , Issue , 7-10 Jan. 2002 Page(s): 2256 – 2265.* Retrieved from

J. D. Gibson and B. Wei, Tandem Voice Communications: Digital Cellular, VoIP and Voice over Wi-Fi, Global Telecommunications Conference 2004 (GLOBECOM '04), Vol. 2, 2004, pp. 617-621

King (2007). Traceability of chemical analysis. Analyst 122, 197 – 204. Date: 015/03/2008

Kim, Nash (2008) Three Big Ideas for 2008: How to Do CRM Online Retrieved from http://www.cio.com.au/index.php/id;1367450960 Date 22/01/2008

Kucera, P. Bode and V. Stepanek (2000). The 1993 ISO Guide to the expression of uncertainty in measurement applied to NAA. J. Radioanal. Nucl. Chem. 245, 115 – 122. Date: 25/02/2008

Lee, Huan, Y.W., Yu, F., Hang C., Tsai, C.H., , D.T. & Kuo, S.Y (2004), Security and privacy: Retrieved from, Securing web Application code by static analysis and runtime protection, proceedings of the 13th international conference on World Wide Web, May 2004. Date: 04/03/2008

Lumley (2005). CRM Software - Microsoft Dynamics CRM, Retrieved from www.microsoft.com/dynamics/crm/default.mspx - 20k Date: 25/02/2008

Leone, Mark and Parker Potter. (2002) "Legitimation and the Classification of Archaeological Sites". American Antiquity

(2002) 57(1):137-145. Date: 08/04/2008

Lynott, Mark J. (2008)"Ethical Principles and Archaeological Practice: Development of an Ethics Policy." American

Antiquity 62(4):589-599. Date: 08/04/2008

Lipe, William D. , (2000) "In Defense of Digging: Archaeological Preservation as a Means, Not an End". In Ethics in American Archaeology. Washington DC: SAA, 2000. Date: 08/04/2008

Mark, H, (2001). CRMindustry.com - CRM, customer relationship management, customer Retrieved from www.crmindustry.com - Date: 10/03/2008

Mogey, N. and Watt, H., (2003). The use of computer in the assessment of learning. Retrieved from http:// www.iebl.hw.ac.uk/ltdi/implementing-it/cont.htm Date: 07/03/2008

Nunamaker, J.F JR., M., Purdin, T.D.M. (1999), System Development in Information Systems Research, *Journal of Information System* Winter 2000-2001, Vol 7, No 3,pp. 89-106. Date: 06/01/2008

Olario, P A (2007), Retrieved from http://ieeexplore.ieee.org/iel5/7798/21442/00994156.pdf?tp=&arnumber=994 156&isnumber=21442 Date: 15/01/2008

Peter, (2008), ROI Evaluation Report: Microsoft Business Solutions CRM Retrieved from http://www.gauvintech.com/Documents/roi_nucleus_tool_2.pdf Date: 05/03/2008

Rees, M.J.(2002), *Evolving the browser towards a standard user interface architecture*, Australian Computer Science Communications, *Third Australasian conference on User interfaces, January 2002-Volume7, Volume 24 Issue 4* Date:04/03/2008

Raab, L. (2005) Mark and Timothy Klinger. "A Critical Appraisal of Significance in Contract Archaeology." American

Antiquity 42 (1977):629-634. Date: 05/03/2008

Siong, H.M. Dung, A.K. Wood, N.A.A. Salim and M.S. Elias (2006). Testing the applicability of k0-INAA at the MINT's TRIGA MK II reactor. Nucl. Instr. & Meth. A 564, 716 – 720. Date: 015/03/2008

Stover, T (2007), CRM in Financial Services: A Practical Guide to Making Customer Retrieved from   www.salesforce.com Date: 10/03/2008

Spatz, Y (2003), Retrieved from   sourcetapcrm.sourceforge.net/ Date: 10/03/2008

Toro, Eva (2003), Building Proactive Customer Relationships Over The Web, Göteborg, Graduate Business School. Retrieved from
http://www.handels.gu.se/epc/archive/00002733/   Date: 09/01/2008

Thompson (2000). Recent trends in inter-laboratory precision at ppb and sub-ppb concentrations in relation to fitness for purpose criteria in proficiency testing. Analyst 125, 385 – 386. Date: 015/03/2008

Yang,   Qing   Duan(2005)   Web-Service-Oriented   Customer   Relationship Management   System
Evolution.   Software   Technology and Engineering Practice, 2005. *13th IEEE International*   *Workshop 2005*
Digital Object Identifier   10.1109/STEP.2005.35   Date 02/02/2008

Whitten, J.L., Bentley, L.D., & Dittman, K.C. (2001). System Analysis and Design Methods (5th ed.) Mc-Graw Hill: Boston. Retrieved from Wikipedia (2005), the free encyclopedia. http://en.wikipedia.org/wiki/Philip_B._Crosby Date: 19/03/2008

Wilson,   (2005).   Retrieved   from   http://www.rfp-templates.com/rfp/for/CRM-Selection-Criteria-PDF.html   Date: 08/04/2008

William, A (2004). CRM: Redefining Customer Relationship Management - Retrieved from   www.crm.es/ - 1k 25/02/2008

Wood, P (2003). a definition from Whatis.com - see also: customer ... Retrieved from searchcrm.techtarget.com/sDefinition/0,,sid11_gci213567,00.html   -   50k Date: 25/02/2008

Wylie, Alison. (2000) "Ethical Dilemmas in Archaeological Practice". In Ethics in American Archaeology. Washington

DC: SAA, 2000. Date: 08/04/2008

Walker and I. Lumley (2007). Pitfalls in terminology and use of reference materials. Trends Anal. Chem. 18, 594 – 616 Date: 015/03/2008

Zeisler, E.A. Mackey, G.P. Lamaze, T.E. Stover, R.O. Spatz and R.R. Greenberg (2006). NAA methods for determination of nanogram amounts of arsenic in biological samples. J. Radioanal. Nucl. Chem. 269, 291 – 296. Date: 25/02/2008

Wikstrom, J.L., Albert (2004). Information system Mc-Graw Hill: Boston. Retrieved from internet, the free encyclopedia. http://en.wikstrom.net/ddf9828252p Date: 07/12/2008