DESIGN OF A WEB-BASED APPOINTMENT FOR PATIENT OF OPTOMETRY DEPARTMENT AT EL-BEIDA HOSPITAL, LIBYA

Omran A. H. Mohamed (801239)

UNIVERSITY UTARA MALAYSIA

2011

DESIGN OF A WEB-BASED APPOINTMENT FOR PATIENT OF OPTOMETRY DEPARTMENT AT EL-BEIDA HOSPITAL, LIBYA

A project submitted to dean of research and postgraduate studies office in partial fulfillment of the requirement for the degree

Master of Science (Information Technology)

Universiti Utara Malaysia

By

Omran A. H. Mohamed

(801239)

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 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 Research and Postgraduate Studies

College of Arts and Sciences

Universiti Utara Malaysia06010 UUM Sintok

Kedah Darul Aman

Malaysia

ABSTRAK (BAHASA MALAYSIA)

Hal ini menunjukkan bahawa munculnya World Wide Web telah merevolusi perniagaan proses dan membantu penyebaran maklumat khususnya di rumah sakit di seluruh dunia. Ini projek penyelidikan dengan masalah yang sedang menghadapi pesakit jabatan optometri di rumah sakit El-Beidal Libya pesakit sukar untuk menerima rawatan perubatan kerana kaedah lama rawatan perubatan yang dalam amalan. prototaip dibangunkan untuk membantu pesakit dalam berkomunikasi dan tempahan janji dengan pegawai perubatan di rumah sakit Optometri Jabatan El-Beidal Libya terlepas dari masa dan lokasi mereka. Sistem telah diuji oleh calon pengguna dan mendapati bahawa adalah mudah digunakan.

ABSTRACT (ENGLISH)

It has shown that the advent of World Wide Web has revolutionized the business processes and assists the information dissemination especially in hospital all over the world. This project research on the problem that is currently facing the patients of optometry department in El-Beidal hospital Libya where patients are finding it difficult to receive medical care due to the old method of medical treatment that are in practice. A prototype is developed to help the patients in communicating and booking appointment with medical officers in Optometry Department of El-Beidal hospital Libya irrespective of time and their location. The system was tested by the prospective users and found that it is easy to use.

ACKNOWLEDGEMENT

My praises go to Almighty Allah for guiding and blessing me throughout my staying in Malaysia and completion of this project. I would like to thank my parents for their parental and financial support during my program in Malaysia. Also, my appreciation goes to my mother, siblings and friends for their support throughout my program, May Allah reward all of you abundantly. Also, this gratitude goes to my Supervisor, Prof Madya Dr Wan Rozaaini Bt Sheik Osman for her support and constructive criticism towards the completion of this project, may Allah reward her abundantly and provide for her family. The last appreciation goes to people that are in one way or other took part towards the successful completion of this project, especially the University Utara Malaysian administration, staff and students, May Allah continue to bless all of you, amen.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

The advent of the World Wide Web has revolutionized business processes and radically changed the dissemination of information which has spectacularly influenced the society and thus the role of Information and Communication Technology (ICT) cannot be overemphasized. While it could be said that a lot of research has been carried out on the impact of ICT applications in traditional business processes in the private sector, it is also true that over the past decade research on e-Government has increased enormously. This can be attributed to the growing interest of the use of ICT in public administration (Laudon, 2000).

E-Government as the name suggests means electronic government. Like other contemporary terminologies, the term is defined and used in different contexts. However, the common premise is that e-Government involves the automation of current non-computerized procedures to communicate with citizens, transact business, and disseminate information by government agencies. It mostly involves

The contents of the thesis is for internal user only

REFERENCES

Armstrong, E. et al. (2004). *The J2EE Trademarked 1.4 Tutorial Sun Microsystems*. p. 4150.

Atle Refsdal, K. S. (2008). *Extending UML Sequence Diagrams to Model Trust-dependent Behavior with the Aim to Support Risk Analysis*. 197(2): 15-29.

Barclay, K., & Savage, J. (2004). *Object-Oriented Design with UML and Java*.

Bennett, S., McRobb, S., & farmer, R. (2002). *Object-oriented System Analysis and Design.* 2nd Edition. UK, McGraw Hill.

Dennis, A., Wixom, B.H., & Tegarden, D. (2005). *System analysis and design with UML version 2.0: an object-oriented approach with UML*. 2nd edition. Hoboken, NJ: John Wiley and Sons, Inc

Department of Industry, T. a. R., & Ltd, a. T. H. G. P. (2006). Usability Design Guidelines. https://transactions.business.gov.au/smartforms/general%20form%20usability%2 0design%20guidelines%20V1.2.pdf. Retrieved on 23-Dec-2008.

Eder, L. (2000). *Managing Healthcare Information Systems with Web-Enabled*

Erdogan, D. (2007). "*Service-Oriented Approach For The Information Integration In Ehealth Applications*", 2nd eHealth Conference, Antalya, Turkey.

Erdogan, D. (2009). *Semantic Web in Ehealth.* ACM Journal, pp. 87-90.

Eysenbach, G. (2001). *What is eHealth?* J Med Internet Res; 3(2): http://www.jmir.org/2001/2/e20. Retrieved on 13/12/2010

Fox, M. (2006). *Privacy in Clinical Information Systems in Secondary Care*. *British Medical J.*, 318: pp. 1328-1331.

Fulcher, J. (2006). *The Use of Smart Devices in eHealth*. ACM Journal, pp. 27-32

Gellersen, O., & Gaedke, M. (1999). *Object-Oriented Web Application Development*. IEEE Explore, Internet Computing. 3(1), pp. 60-68.

Hoffer, J., George, J., & Valacich,J. (2005). *Modern Systems Analysis & Design*. Prentice Hall, Fourth Edition.

http://www.broadbandeurope.eu/Lists/Competences/IANIS_Guide_eHealth.pdf. Retrieved on 03/12/2010.

Hughes, G. (2005). *Guide to Regional Good Practice*. http://www.bth.se/fou/forskinfo.nsf/0/8feaa4dab175d317c12573c4004aea64/$FILE/IANISplus_GGP_eHealth.pdf. Retrieved on 03/12/2010.

Hughes, G. (2007*). A Guide to eHealth Applications for Regions*.

Johan, k. (2004). *Information System Analysis And Design Retrieved*: October 2005, available from: http://www.cs.toronto.edu/~jm/3405/slides2/sequenceD.pdf.

Laudon, K. C., & Laudon, J. P. (2000). *Management Information Systems: Organization and Technology in the Networked Enterprise*. Upper Saddle River, New Jersey: Prentice-Hall, Inc. pp. 220 – 222.

Martin, F., & Kendall, S. (2000). *UML Distilled: brief guide to the standard object modeling language* (2nd ed.). Boston, USA: Addison-Wesley Longman Publishing Co.

Oh, H., Rizo, C., Enkin, M., & Jadad, A. (2005). "What is eHealth? *A Systematic Review of Published Definitions*". Journal of Medical Internet Research, Vol. 24, pp. 137 - 147

Pascual, P.J. (2003). *eGovernment:* e-ASEAN Task Force UNDP-APDIP

Powel, W., & Jason, O.S. (2003). *The Expanding Role of University Patenting In the Life Sciences*. Science Direct Journal, Vol. 32, Issue 9, pp. 1695-1711.

Road, B. (2002). *Authentication and Security Mechanisms in ASP.NET Web Applications*

http://documents.iss.net/whitepapers/asp_net_whitepaper.pdf. Retrieved on 22/12/2010

Sarivougioukas J., & Vagelatos, A. (2007*). eHealth vs eGovernment*. http://mednet2007.com/content/news.php?item.56. Retrieved 20/11/2010.

Schraefel, L., & Yuxiang, P. (2001). *Interaction Design for Web-Based, Within-Page Collection Making and Management.* ACM Journal, pp. 125-126.

Sridaran R., Padmavathi, G., & Iyakutti, R. (2009). *A Survey of Design Pattern Based Technologies*. Idea Publishing Group.

Tichy, N. M. (1982) *Managing Change Strategically: The Technical, Political, and Cultural Keys, Organizational Dynamics*. pp. 59-80.

Vaishnavi, V., & Kuechler, B. (2004). *Design Research in Information Technology Web Applications*. Journal of Object Technology, 8(2).