UNIMAS ONLINE VACANCY SYSTEM

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ABSTRAK

Penggunaan teknologi maklumat banyak menggubah kehidupan harian manusia. Di bidang perniagaan pula, komputer dan laman web telah digunakan untuk menjalankan e-dagangan. Fenomena baru ini membolehkan pengguna menjalankan aktiviti membeli-belah pada bila-bila masa sahaja asalkan mendapat hubungan daripada Internet. Salah satu contoh e-dagangan yang boleh diperhatikan ialah "online vacancy system" atau "job posting system" yang berfungsi sebagai orang perantaraan bagi syarikat dan pungguna Internet biasa, di mana syarikat boleh mengiklankan pekerjaan melalui sistem tersebut dan membolehkan pengguna memohonkan pekerjaan melalui Internet. Sistem itu mendapat keuntungan melalui bayaran untuk iklan. Ruang perniagaan yang baru ini perlu dihargai oleh ahli-ahli perniaga yang bercita-cita tinggi kerana arena baru ini bukan sahaja membolehkan mereka menceburkan diri di pasaran dunia malah dapat menyediakan perkhidmatan yang lebih cekap kapada para pengguna.
ABSTRACT

Information technology had brought a lot of changes to human life style. The business world for instance, computers and web pages are used as a tool for creating the e-commerce. This new phenomenon allows the Internet users to do their shopping activities at any time they want as long as they are able to get the connection from the Internet. One of the e-commerce that we can found on web are so called "online vacancy system" or better known as "job posting system". This system functions as the "middle man" between the company and the job seekers, where the company are allowed to advertise the vacancy on web and the job seekers however are able to apply the job online. The system generates revenue by collecting the fees from the company. Businessmen who aimed high must treasure the new business space that created by e-commerce because this technology given them a chance to target for the global market and allow them to provide better services to customers as well.
1 THESIS OVERVIEW

1.1 Introduction

Internet had paved a way for electronic commerce in business sector with the implementation of buying and selling of goods or service on the Internet. This newly emerged industry in fact had brought a big fortune to the e-commerce developer and creates a new era of doing the business. Now e-commerce even plays a greater role since the number of users for Internet had grown exponentially.

This thesis therefore discovers the Internet technology for building the web application for e-commerce and creates a prototype of UNIMAS Online Vacancy System. This system, as mention is an e-commerce system that offering job posting, job searching and banner advertising facilities. It is very flexible and can be a standalone web application or act as a subsystem for Knowledge Portal. After the system is done, UNIMAS itself can also use the system to advertise the vacant post instead of using the employment page on the UNIMAS homepage which only display the static content. Unlike the existing employment component on the UNIMAS homepage, this system will embed with dynamic and interactive content that allow the user to key in the information and stored the valuable information in the database. To make the
system more efficient, the application that the sent by the user will directly delivered to the employer without any delay.

1.2 Motivation

There are two main stimuli for the current interest in developing the prototype of UNIMAS Online Vacancy System: administration needs and user needs.

Administration needs. The administrator in UNIMAS needs a better system for handling the vacancy advertisement on the Internet. At the present state, the administrator can only change the content on an employment page via keying in the information with the help of FrontPage software. While it is workable, this process was quite slow and inefficient. Without interactive feature between a user’s action and an on-screen response, building effective Web-based applications was quite constricting.

User needs. The general growth in the use of Internet has led the user to demands for more sophisticated features in the web-based system. The user want a faster response and interactive application which can help them to solve the problem and handling all the task that come across by the user. In the
proposed system for example, the user might request all the necessary information about the employer and an easier, faster application process.

1.3 Background

In the present state, when there is a need for UNIMAS to advertise an advertisement, the senior manager in Human Resource Management Department (HRMD) will direct the staff in charge to advertise the vacant post. The two methods implemented by HRMD are through mass media and UNIMAS homepage. The mass media, which referred here, is the newspaper. However for the UNIMAS homepage, the content for the current existing vacant post is edited by the webmaster, Cik Fatimah Bolhassan. She is using the Hypertext Markup Language (HTML) to key in the information for the vacant post.

In the existing employment component on the UNIMAS homepage, the Internet user can only view the vacant post information from it. They can neither obtain the application form from the web site nor been encouraged to sent the resume through web. The advertisement for vacant post only directs the user to obtain the application form though Pos or from the counter in HRMD.
1.4 Problems Statement

The idea of developing a UNIMAS Online Vacancy System was inspired by the problems of:

- Ineffectiveness of the current system
  The current system is not updated frequently. The information of the vacant post take a long time to be appeared on web due to the heavy workload of the webmaster.

- Communication problem
  The Internet user cannot ask directly to the Human Resource Management Department about the offering post through web. The email link that provided on the UNIMAS homepage for employment page is the email address for the webmaster who might not know every details of offered jobs.

- Time consuming and troublesome application process
  The traditional application procedure is been recommended in the current system where the user is directed to obtain the application form through Pos or from the counter in HRMD. This method is time consuming and troublesome.
It is also insecure as the problem of lost of mail may occur if they apply through Pos.

1.5 Objectives

Objectives for the project have to be defined to narrow down the scope of research and to break down the work to smaller workable modules, which is easier to be implemented. The five main objectives that had identified for this thesis are:

i) To create a prototype of UNIMAS Online Vacancy System showing the list of current vacant post and allowing the user to apply the post online.

ii) To explore how the commercial web site can be developed

iii) To study how to combine the different type of tools technologies in order to create a web-based application.

iv) To evaluate the prototype for UNIMAS Online Vacancy System.

v) To study issues in development of e-commerce system.

1.6 Methodology
For this thesis, standard Software Development Life Cycle (SDLC) is used as a methodology to organize and carry out the multiple of tasks in a more coordinated, better synchronized and more efficient way to ensure the complex systems can be implemented and large projects can be managed successfully. SDLC that employed in this project contains six separate phases. They are requirements analysis, architectural specification, detailed specification, implementation and testing, integration and testing, and operation and maintenance.

Requirements Analysis

This phase places concerns to gather a complete description of the problem to be solved and the requirements posed and to the environment in which the system is going to function. Analysis in this phase helps to specify the boundaries and scope of the prototype creation, giving a clearer picture for the design modeling. It also helps to identify the problems of the current system and the objectives of building the prototype.

Architectural Specification

This phase gathers the information from the analysis phase and plans out the system architecture by using several analysis model. The analysis model that built in this phase would provide a clearer picture of the software used in
building this prototype and addressing the functionality from an implementation perspective.

**Detailed Specification**

This phase covers the actual development of the Vacancy System prototype based on the design and analysis that had been done before it. The exact interface design for the system will be done here.

**Implementation and Testing**

This phase implemented and tested the prototype that had been developed in the earlier stage. It helps to detected the problems and bugs for the system. A series of tests under different environments would carry out with the sample data on the prototype to stimulate the actual environment.

**Integration and Testing**

This phase measuring the efficiency of the Vacancy System prototype, and then tuning and optimizing the software in the light of these measurements.

**Operation and Maintenance**

After delivery of the software, maintenance is needed to keep the system operational. Often the new system will contain errors that have still gone undetected. These errors will be repaired in the maintenance phase.
1.7 Project Scope

The Vacancy System prototype will cover the basic functionality of the e-commerce system. Because of the time and resources constraints, this project does not include strict security system for e-commerce. However, the project itself does consider the expansion of the system and thus prepare the necessary steps and do the data gathering for future development.

This project will therefore focus the implementation of the system prototype and its User Manual. The application module will concentrate on processing the application for job posting, job applying and banner advertising. While the communication module will provide the facilities for communication between the job seekers with the administrator. For the convenient of the user, the User Manual will provide the information of the system and telling the administrator how to use it. This will help the administrator to understand the system better and learning to use it in an easier way.

1.8 Thesis Outline
The rest of the thesis is organized as follows.

Chapter 2 reviews the necessary terms and concepts, existing framework and general related work in the research area. This chapter also discusses the strength and the weakness for every web technology, as well as web server for creating a web based system.

Chapter 3 studies the methodology used for the project and the analysis for the proposed system. The system analysis will go deep into detail for the architecture of the prototype.

Chapter 4 looks into the design for the system in order to fulfill the needs of specification and requirements. Different steps of design, such as output design, input design, database design and user interface design are discussed in details.

Chapter 5 provides the implementation methods and tools for creating the prototype. It also mentioned the problems faced during implementation phase. The workflow for some of the modules are also highlighted and studied carefully.
Chapter 6 describes the future works that can be done for the prototype. Some recommendations are also given to improve the prototype.
2 LITERATURE REVIEW

2.1 Introduction

More and more employers are listing job opportunities on their web pages for jobs recruitment. The critical demand in job market for professionals and specialists had encouraged the emerging of another type of e-business that offering digital employment services to both employers and job seekers.

Many local and foreign institutions of higher learning have also set apart certain pages on their homepage for the purpose of displaying the list of job opportunities. In some cases like University of Arizona, they display all the jobs posted by the different departments on the homepage and allow the job seekers obtain the required skills and information, as well as download the application form on web. The proposed system for this project will be similar to the job posting system that available in University of Arizona. The main difference for them is the proposed system is an e-business application and allows not only UNIMAS but other companies and institutions as well to use it.

There are many Websites on the Internet that offering the service for creating an e-business. In order to build an application for e-business, the building block of e-commerce is examined in detail to identify the topology that can we
have to build the Online Vacancy System. Similar existing system will also be looked into in order to compare their strength and weakness. Different web technologies that are needed to build a web application will also be examined and discussed in details.

2.2 What is Web Application?

"Web application is a series of interactions between a client and a particular Web site, where the entire Web interaction process begins with a single page displayed in the browser. When the user clicks on a button or link on the page, it will cause a request to be sent to the Web application server. The request is processed on the Web application server and a new page is sent back showing the results of the request and presenting buttons or links for the next request. Thus the Web application consists of a set of processing steps or interactions, each of which gets a request generated from a page and each of which must produce a response in the form of a page that will serve as the input for subsequent interactions." (IBM Application Framework for e-business, 1999)

The Online Vacancy System for instance is a standard Web application example. With the help of the Web application, information can be updated and accessed from the desktop without request a costly proprietary interface.