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JUDUL: KUITTHO APPLICATION HELPDESK SESI PENGAJIAN: 2005/2006 Saya JULIA BT KADRI

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA 2006

DECLARATION

I hereby declare that this project report entitled

KUITTHO APPLICATION HELPDESK

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

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DEDICATION

Specially dedicated to

My beloved family members who have

encouraged, guided and inspired me throughout my journey of education

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ABSTRACT

KUiTTHO Application Helpdesk is developed for Information Technology Department of Kolej Universiti Teknologi Tun Hussein Onn, Parit Raja. This web system will be used encompasses the whole Kolej Universiti Teknologi Tun Hussein Onn areas that are using application across the place. To complete this system, Personal Hypertext Pre Processor was be utilized as a development tool. The KUiTTHO Application Helpdesk is divided into two that are User site and Administrator site. The purposes of this system are to keep track records easily and quickly, to have a user friendly system and also to have security control to ensure data integrity. In addition, it helps user know any latest information on the particular Application and also to save the data into one database. This system enables user to access and retrieve data. On the other hand, the administrator is able to insert, update and delete data or information from the system. This system's aim is to lighten the staffs' burden and provide an easy way for administrator to maintain the records. This system uses client-server technology, which consists of application layer and server layer. As a conclusion, this system has brought a lot of consequences to Kolej Universiti Teknologi Tun Hussein Onn in order to transform the manual process into an online model.

ABSTRAK

Meja pertanyaan adalah salah satu alternatif kepada pengguna mana-mana sistem yang memerlukan pengetahuan dan bantuan tentang sesuatu. Meja pertanyaan secara atas talian pula akan dapat membantu pengguna bila-bila masa di mana sahaja tidak kira masa dan di mana sahaja. Meja pertanyaan Kolej Universiti Teknologi Tun Hussein Onn ialah sistem yang membantu staf apabila staf menghadapi masalah dengan sistem aplikasi yang mereka gunakan. Sistem ini mempunyai dua bahagian iaitu bahagian pengguna dan bahagian pentadbir. Pengguna boleh mencari dan melihat maklumat. Pengguna juga boleh menghantar soalan ke dalam sistem. Sistem dibangunkan menggunakan perisian pembangunan php. Sistem juga menggunakan MySOL sebagai pangkalan data untuk menyimpan segala data. Modul yang ada di dalam sistem ialah maklumat pengguna, maklumat sistem aplikasi, isu dan pertanyaan serta koleksi soalan yang selalu ditanya oleh pengguna. Pentadbir akan cuba menjawab soalan dari pengguna dan memaparkan kembali soalan dan jawapan yang lengkap. Sistem ini akan dapat membantu staf dan pengguna mengurangkan masa respon yang diperlukan apabila pengguna mempunyai masalah yang ingin diajukan kepada staf Pusat Teknologi Maklumat

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CHAPTER I

INTRODUCTION

Project Background 1.1

Information Technology (IT) infrastructures have become incredibly complex, while the demand for reliable and efficient service is constantly growing. According to Pearson (2003), Information Technology is all the hardware, software and content technologies that are related to the creation, storage, distribution and presentation of digital information.

In IT Department of Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO) there are many application system and program is used there to manage all the information that are related to the management of KUiTTHO. These application system and program are used all around the campus whether using an online or intranet connection for communication. Some of the application system includes Sistem Maklumat Pelajar (SMP), Sistem Maklumat Staf (SMS), Sistem Maklumat Kewangan (SAGAD), Attendance System, Matrix Card System, E-Office, E-Mesyuarat, Sistem Maklumat Pelajar Online (SMAP Online), On-Leave System and many more. Application system that been used in KUiTTHO; some of them is developed by the IT Department and some is passed to the consultant and outside organization or third party to be accomplished. All these application system is used and maintained by individual

that in charge in their department. When incident with the system occur user will contact the IT Department and speak to the person authorized for the system. Then, this person will respond to the incident and make the solution.

Currently the information about the system is saved and maintained manually by the person authorized for their own system. Changes and updating of the system is recorded manually by this person and give the report to the IT Officer. Problem occurs when users that are facing an incident cannot reach the person in charge of the system and have to wait for the person and call again.

KUiTTHO Application Helpdesk will be the support for the person in charge of the system in term of helping user with their incident. KUiTTHO Application Helpdesk collects and gathers information of all the application system and program used here and save the information in one place. User can get answer quickly about their system through the first line support that attempt to solve quick and straightforward incidents.

KUiTTHO Application Helpdesk has two site that is user site and administrator site. User can search and view the system information and admin can make insert, update, delete, search and save information. KUiTTHO Application Helpdesk used intranet connection in local area network inside KUiTTHO. This system will help the person in charge of the application system to focus on their work and reduce the call volume from user that faces common incident. KUiTTHO Application Helpdesk will keep track the application record and history that can be refer in the future so every changes and update of any application system is notify and acknowledge by user.

KUiTTHO Application Helpdesk is an essential need when it comes to new generation of officer and IT department staff that come to continue the work and effort of the previous staff and maintain the system without facing any trouble. This system is important to keep the application program look in their very best way and best performance.

Problem Statements 1.2

Difficult to keep track application record and history

Application record file is saved using manual filing system. Problem occurs when staff wants to refer to the application record but could not locate the application information position.

ii. New user will find a hard time to figure out the basic information about an application

Most of the user of an application would be a clerk or data entry person that does not have basic of IT and technical education. These staffs will have problem getting started with the application system.

iii Application records are saved separately.

Each application is managed and monitored individually. All the record is saved by different person that in charge on their own system. Problem occurs when no one can offer help when the person in charge is not around.

iv No place to put the latest update news of an application

Every updating and changes that have been made to a system must be informed to all users. Problem occurs when this update didn't reach every user.

1.3 Objectives

Objectives of the system are:

- Keep track of all of the application system inside KUiTTHO quick and easily
 - Alternative for manual record file system
 - All the application record is saved in one place
- ii. Give user the latest update of the system that they are using.
 - User can check for any changes and update function or module that already been stated inside the system.
 - IT Department staff do not need to tell the updating that been made to user one by one
- iii. Reduce call volumes from user.
 - Call volume from user that has common problem or incident can be reduced when they refer to the KUiTTHO Application Helpdesk for support and information.
 - New user can make references to the KUiTTHO Application Helpdesk for help and support.

1.4 Scopes

KUITTHO Application Helpdesk will give a systematically computerized list of application system and program inside KUITTHO. User of this system is separate to two that is administrator and user. Administrator of the system is the helpdesk staff and user that are the staff that are using any application system inside KUITTHO. This system is accessed using the local intranet connection inside KUITTHO.

There are two sites that are user site and administrator site. User site is for user to make search for application system and view the information. User can also create

question or issues to be answered by the helpdesk staff. Admin site is for the helpdesk staff to use the function inside the system that is to insert, update, delete, search and save information. Modules of the system are:

- User Profile
- Application Information
- Issues Management
- Frequently Asked Question (FAQ) Details and Knowledge Based
- Announcement
- Attachment

Data that should be collected is like personal details, location, building, room number, priorities, description and also keywords. Helpdesk application software system requirements:

- Operating System: Windows 2000 Professional
- Web Server: Apache HTTP Server 2.0.54
- Database: MySQL Version 4.1
- Web Browser: Internet Explorer 5.5+
- Scripting: Personal Home Page Hypertext Pre-Processor (PHP)

1.5 Project Significance

KUiTTHO Application Helpdesk will benefit the helpdesk staffs that are formally an IT Department staff. This system will reduce call volume from user that facing common incident. Staff can effectively respond to repeated issues and make changes and update where necessary.

Helpdesk serves as a central single point of contact for questioning and problem reports. It forms as organizational entity within an enterprise and in this case it is a

subject or entity for the IT Department and all the staff inside. The knowledge of the system is distributed to all users round the clock. User of KUiTTHO Application Helpdesk can request for any changes for the system directly to the person in charge of the system with the information of the system administrator or programmer that in charge of the system provided.

1.6 **Expected Output**

Features and function that will be offer from KUiTTHO Application Helpdesk is for user they can make search process of any application that they want to know and also find any update of the system. For administrator site, helpdesk staff can make search, insert, update, delete and save function. This system is connected using intranet connection so that all users around the campus can access the system with the right permission using username and also password. Features of the system are User Profile, Application Information, Issues Management and also FAQ.

Helpdesk staff can concentrate with their work with the reducing of call from user for common incident that already stated in the Frequently Asked Question (FAQ) part. KUiTTHO Application System will replace the manual process of keeping the record for application system and their information's. All the information for all the application is gathers in one place and saved inside one database.

Information that is needed for the system is personal details, location, building, room number, priorities, description, application function and module and also keywords. All these information is taken from every file that saves the application system data and record from every person that in charge of their own system that is the IT Department staff.

Conclusion 1.7

KUiTTHO Application Helpdesk will help make changes of manual way for keeping the record of application and program that currently be kept by different person in the IT Department. The system can also play a role of maintaining tools for these applications where any update and changes of the system is recorded and saved inside the database where user can be notify about the system.

The advantages of KUiTTHO Application Helpdesk are user can search information easily and swiftly and a user friendly system because it is not hard for user to understand and use the system. User can find information that they wanted by viewing the module inside the system that is Application Details, Helpdesk Info, Application Function, Application Features, Update and Changes, FAQ and also Knowledge Base. This information will eventually help user with their work and lower the burden of the helpdesk staff that is the IT Department Staff.

The next chapter is literature review and project methodology that discuss the approach and related or passed research, references, case study and other finding that relate to the project title. Project methodology describes the selected approach or methodology used to develop the system and activities that involves in the methodology stages.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Literature review is process of searching, collecting, analyzing and drawing conclusion from all debates and issues raised in relevant body of literature that implies of make use of other people work that related to the topic of the project. These review that can be books, journals, technical reports, proceeding conferences, anonymous references, publication of international bodies or agencies and also web pages or e-book that contain the topic that been studied. The review will help in making comparison and interpret the project that is done.

Fact and finding that are based on development and management of helpdesk, helpdesk issue that rising and also the benefit of helpdesk system. User perception of the helpdesk and also management is also discussed in this chapter. Organization background for the helpdesk system that will be placed and also the development and evolve of application system in the organization.

Methodology that been used to develop this system is focusing on the methodology of database design that is Database Lifecycle (DBLC). DBLC that been used contains six phases that is database initial study, database design, implementation and loading, testing and evaluation, operation and also maintenance and evaluation. Database methodology is an important aspect to a good database

production that provides a precise description of every phase of the database creation.

The software and hardware requirement also have their important part in developing a good system. Software that will be used for development is Macromedia Dreamweaver 8.0 and Adobe Photoshop 7.0 and for database are My SQL Version 4.1 and Apache HTTP Server 2.0.54 for server. In addition, project schedules and milestone are planned in order to manage the project flow of event and deliverables. The project schedule is planned using Gantt chart that easier to be viewed.

2.2 Fact and Finding

A helpdesk is characterized by the following properties: Helpdesk fulfils the support functions for its customer. The helpdesk customers are people that use the support of a helpdesk. Subject of support is product and services. Helpdesk serves as a central single point of contact for question and problem reports. It forms as organizational entity within an enterprise. Helpdesk are solution oriented. The purpose is the efficient and effective answer of questions or solution of problems. Decentralized helpdesk can be distributed transparently over several locations from user's perspectives (Khosrow, 2002).

The helpdesk provided a first line support service providing diagnostics and advice via the telephone to find solutions to the majority of basic technology-based queries. In the event of the IT problem being more difficult to resolve, the helpdesk liaised with the user and engineering teams (BrockBank, McGill and Beech, 2002).

The helpdesk is created to protect the developers from excessive interruption by the users. However the helpdesk has limited knowledge and passes the majority of its queries on to the developers (Khosrow, 2002). Even though the system is supported by helpdesk system, much of the problem of the application or system in the end is solve by the developer or person in charge of the system.

The helpdesk staffs do not actually come from a computing background, but are ex-data entry clerks. The development department is opposed to any increase in their knowledge; fearing that a little knowledge is a dangerous things; the helpdesk may actually do more harm that good by overestimating the usefulness of its limited knowledge (Khosrow, 2002).

Ten key steps for successful support: (1) know your resources (2) know your customers (3) launch your services (4) manage the support workflow (5) ensure good problem closure techniques (6) instant workload status reporting (7) be proactivetake control (8) regular contact with customer (9) conduct surveys (10) redo all the above in 4 to 6 months (Khosrow, 2002)

The contribution of the helpdesk was two-fold; it provided valuable first-line help and advice for its customer but also enhanced organizational capability through the education of the users (BrockBank, McGill and Beech, 2002).

The development of application software and the maintenance of application software, whereby the application software carries the logic or functionality that the users require to do their job using an Information System. Both functions are distinct from each other, in the output of the development-the implemented application software - serves as an input of the maintenance work. Within the software lifecycle both are distinctive in their work processes. Application development is generally understood to refer to the definition, design, and implementation of customized software (Weise and Dibbern, 2004).

Case Study 1: The Intelligent Helpdesk: Supporting Peer-Help in a University Course

The intranet Peer-Help Helpdesk (PHelps) provides a facilities for locating somewhere on the network a peer helper who are ready, willing, and able to provide help to a particular help request. Tools of the PHelps can provide support in several ways including: