



UNIVERSITI PUTRA MALAYSIA

ONLINE LEAVE SYSTEM KOLEJ POLY TECH MARA BANGI

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DEDICATION

*My greatest dedication to my husband and children,
to all my friends
who supported and encouraged me.*



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ABSTRACT

At present, leave application procedures is being manually performed at Kolej Poly Tech MARA Bangi. Hence, such procedure has not only created a time-consuming process in the approval of the leave application of the staff, but also human mistakes problems like a lost of the application form. Bearing in mind the problems arise due to such painstaking procedure, a proposed system of Online Leave System (OLS) is created with the aim of building a communication platform between the departments and its staff at Kolej Poly-Tech MARA Bangi. The main objective of this system is to help the Human Resource department to handle staff's information specifically in providing leave applications electronically. One special feature of the Online Leave System is the administration interface that is designed for the System Administrator to manage the database storing the staff information and details of leave applications. It makes the Online Leave System flexible and compatible with any new arrangement of the company. The system provides all staff with direct access, from their desktop and in a secure environment, to current information on leave entitlements, leave applications, etc. The Online Leave System allows authorized staff at the departmental level to electronically enter and maintain leave. In addition, units will be able to develop and maintain very detailed leave records. The new system users can simply access the system via the Internet with their unique login names and passwords. It requires no special hardware or software installation, except the use of a web browser. To use the system, an employee simply needs a Leave System account, which is usually created by the Human Resource department when the employee is hired. Each month the appropriate number of accrued leave is automatically added to the leave balance and the employee can enter any leave,

which is to be taken (annual, medical) into the system. The leave requests are then automatically sent to the employee's supervisor for approval. Once the supervisor approves the leave requests, the appropriate number of day is added to or subtracted from the employee's leave balance so that a running total is kept. While this may sound complicated, it's actually an easy, paperless way to track an employee's leave balance. There are no paper forms involved and no mistakes to be made in adding or subtracting leave time. Hence, the Leave System also provides a convenient way for each employee to check his or her own current balance from his workstation and the reports the system can generate make end-of-year leave close-outs quick and easy. The system is mainly made up of Lotus Notes Domino R5 and Java Script codes. All of the information is stored in the database. As a result, all information is retrieved dynamically from the database.

ABSTRAK

Pada masa kini, proses permohonan cuti yang wujud di Kolej Poly-Tech MARA Bangi adalah dijalankan secara manual. Oleh kerana itu, proses tersebut bukan sahaja memakan jangka masa yang panjang tetapi juga telah menyebabkan pelbagai masalah lain yang timbul yang berpunca daripada kelemahan manusia seperti kehilangan borang permohonan cuti, maka satu system usulan yang dikenali sebagai 'Online Leave System'(OLS) telah di reka untuk mewujudkan satu platform antara jabatan serta kakitangan untuk berkomunikasi.

Oleh kerana pembangunan Sistem Cuti Online adalah bertujuan untuk memudahkan komunikasi maklumat diantara pihak pentadbiran dan kakitangan di Kolej Poly-Tech MARA Bangi, objektif utama sistem ini ialah untuk membantu jabatan Sumber Manusia menguruskan maklumat kakitangan terutamanya permohonan cuti tahunan secara elektronik. Ciri utama yang terdapat didalam sistem cuti online ini ialah antaramuka khusus yang telah direka untuk sistem pengurusan untuk menyimpan, memproses dan menguruskan pengkalan data permohonan cuti kakitangan . Sistem cuti online ini berciri fleksibel dan bersesuaian dengan perancangan pentadbiran. Sistem yang di bangunan ini menyediakan kemudahan akses secara terus dari sistem komputer dalam mendapatkan maklumat terkini cuti kakitangan. Sistem cuti online ini juga hanya membenarkan kakitangan yang diberi kepercayaan untuk mengubahsuai seperti memasukkan, mengemaskini, memansuhkan data dari dan kedalam sistem. Pengguna dapat mengakses kedalam sistem melalui login dan password. Pekerja mesti mempunyai akaun cuti online dimana dapat diperolehi dari Bahagian Sumber Manusia. Pada setiap bulan, bilangan cuti yang layak dan baki cuti akan dimasukan kedalam maklumat pekerja

secara automatik. Permohonan cuti juga akan dihantar kepada penyelia bagi tujuan pengesahan secara automatik. Sekiranya permohonan diluluskan, bilangan hari cuti akan ditolak daripada jumlah baki sedia ada, Penggunaan sistem dapat mengelakan kesilapan pengisian borang dan menjimatkan masa serta kos. Sistem ini juga memberi kemudahan kepada pekerja untuk memeriksa baki cuti. Sistem yang dibangunkan ini dapat menghasilkan laporan maklumat cuti pekerja dengan cepat bagi tujuan laporan tahunan. Sistem ini telah dibangunkan dengan menggunakan perisian Lotus Notes Domino R5 and kod Java Script. Kesemua maklumat telah disimpan didalam pangkalan data. Maklumat tersebut juga dapat dicapai semula dari sistem pangkalan data tersebut..

APPROVAL SHEET

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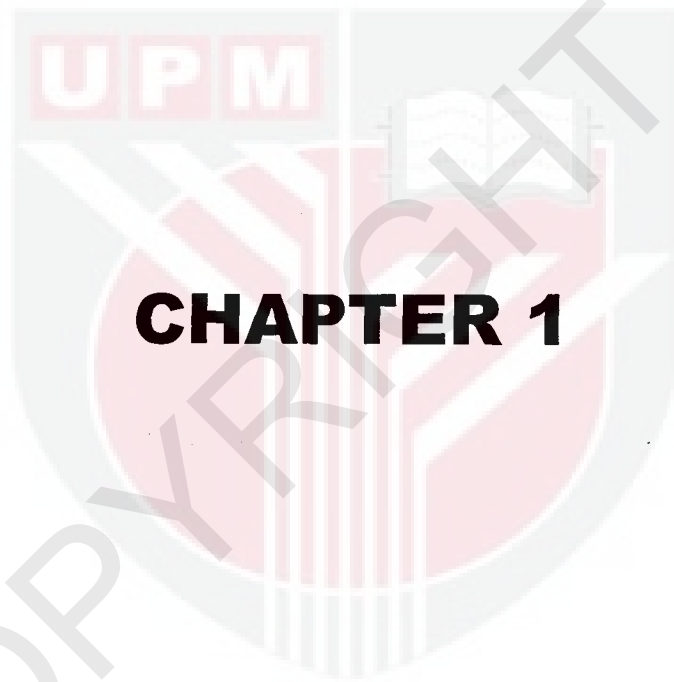
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CHAPTER 1

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CHAPTER 1

INTRODUCTION

1.1 Background

In order to provide a better management of department staff, the Online Leave System (OLS) is proposed to handle repetitive and complicated processes efficiently. Actually this is the first paperless leave application online for Kolej Poly-Tech MARA Bangi (KPTM).

Traditionally, Kolej Poly-Tech MARA Bangi handle staff's leave applications in the form of hardcopy. The staff is required to fill up the leave application form and then pass the form to his or her supervisor. Having signed on the form, his or her head of the department has to pass the application to the human resource staff for further processing, such as calculation, recording and filing the leave application. The traditional system used a lot of papers and man power for process its leave application. Further more more spaces are needed for the storage of the files.

In Kolej Poly-Tech MARA (KPTM), the Human Resources Department or Personnel Office is responsible to handle the leave applications from all branches in Malaysia. This situation is very complicated and time-consuming especially when these leave applications are processed manually. Moreover, some problems may be raised due to human mistakes, such as the lost of application form. Another example is that, two staff in the IT Department are not supposed to apply for leave on the same day because they are responsible for monitoring the same network. But their supervisor may not note the fact and may sign for the approval for both of their leave applications.

With the Online Leave System (OLS), the staff information and leave applications are computerized and stored in the database. It is more reliable and convenient to process the information. The error due to human mistakes can be reduced or overcome.

1.2 Problems Statements

Since there is no online leave system in KPTM Bangi, a simple online leave system based on a paper-based system is designed. The system will be developed using Lotus Notes Domino software.

Some of the potential users of the Online Leave System (OLS) and the system administration may not know how to use complicated computer system and different programming languages, such as Structured Query Language (SQL). Therefore the Online Leave System (OLS) is user-friendly and simple to operate. The administration interface is implemented for the System Administrator to manage the database and user accounts. Only basic computer knowledge is needed. Pull-down menu and pop-up menu are used for the convenience, and to avoid too many typing input that may cause error. The verification and validation of input fields can also be done by system programs.

When there is any change in the staff information, such as the contact number or address, department staff usually needs to submit a form to the related office to make change in his or her record. With the Online Leave System (OLS), the staff can login to the system and change the personal information and password easily by himself or herself. The current leave balance can also be checked in the system.

Currently, leave application in most of the companies relies on hardcopy of forms. Applicants have to fill up their personal information, such as their names, staff numbers, departments and positions every time when they submit a leave application.

The Online Leave System (OLS) does not require the applicant to fill up such

information in each application because every staff has his or her own account. Staff information is already stored in the Online Leave System (OLS) database. All leave applications are handled electronically. It also reduces the input error such as filling in the form wrongly.

If a staff needs to take a day of leave, he or she has to contact the supervisor either in person or by phone. The Online Leave System (OLS) provides user with an alternative of submitting leave application.

There is a leave calendar that summarizes the leave applications of the department and displays the brief description of application, such as the applicant's name and the date of leave application. The leave calendar is only used internally as the reference for the department staff to know which staff is on leave in certain period of time for working purposes. Thus, the type of leave and the reason for leave will not be displayed. There will be no conflict with personal data protection.

1.3 Objectives

The main objectives for this project are:

- a. To create paperless environment substituting paper based system.
- b. To automate the application process that was done manually before this.

1.4 Scope Of the Project

The scope of this project is to develop the first Online Leave System for Kolej Poly-Tech MARA Bangi (KPTM). This is towards the paperless administration and electronic based organisation.

1.5 Organisation Of Thesis

The chapter 1 discusses the usage of Online Leave System for leave application of KPTM staff. It looks into the problem statement of identifying alternative method for utilizing OLS. Among the objectives include creating paperless environment substituting paper-based system, automating the application process that was done manually before this as well as ensuring efficiency in administration in reducing human error. At the same time, insights of whether OLS provide benefits to the staff are also investigated.

The chapter 2 investigated three different features utilized in the implementation of OLS at three different institutions such as University Putra Malaysia, University of Texas and Multimedia University. Based on the different

systems used by these three institutions, an alternative OLS for KPTM institution is then created by adapting the basic features found in the respective OLS institutions.

The chapter 3 outlines the features of the OLS at KPTM. Among the features discussed include workflow process that involves the design of the online leave system. In addition, requirement analysis such as annual leave accrual rate for the different category of employee, type of leave, responsibilities of the staff, as well as the correlation of human resource department and leave system, system characteristics, and its benefits are explicitly discussed. The benefits of enrollment using Lotus Notes Domino are also highlighted.

The chapter 4 discusses the results obtained from the use of OLS at KPTM based on the two proposed system functions; the user interface and the administration interface.

Based on the results, it is found that the OLS does bring benefits to the administration department of the institutions which include electronic approval or decline of leave application, reduction in paper transaction, decrease in departmental workload due to the reduction of administrative and approval steps, improvement in leave management and resource planning. The benefits obtained for the staff, in

contrast, include automatic online single step or multi-step approval of leave application, delivery to staff of accessible up-to-date leave information by reducing reliance on delayed paper-based data entry.

The chapter 5 assesses the main objective of the study; whether the use of OLS is beneficial to KPTM staff. Also further recommendation with respect to use of OLS in KPTM is also highlighted. Among the additional new feature suggested for the particular OLS include the automatic notification process by the system through email by the Human Resource Department to the users.